Escuela de Educación

A Description of Intensive Care Nursing Practices in Two Private Intensive Care
Units in Ciudad de Buenos Aires

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STATEMENT OF ORIGINALITY

This work has not been submitted for a degree or diploma in any other university. To the best of my knowledge and belief, the thesis contains no material previously published or written by another person except where due reference is made in the thesis in itself.

Laura María Alberto

ABSTRACT

Florence Nightingale, founder of modern nursing in nineteenth century, asserted the nurse's role was to assist the nature reparative process. And, while this holds true today, nursing has developed into a profession in its own right with its own unique body of knowledge, scope of practice and educational preparation. This thesis focuses on intensive care nursing practices in two private intensive care units (ICU) in Ciudad de Buenos Aires. Specifically, it explores the knowledge, skills and attitudes critical care nurses require to undertake their practice.

An ethnographic approached was used in this study. Twelve critical care nurses, from two private ICUs of Ciudad de Buenos Aires were invited to participate in the study. Both ICUs were considered Level 1 units according to the classification of the Argentine Society of Intensive Care Medicine and the Argentinean Health Ministry, that is they provide services for the most complex patient groups. Four data collection strategies were used: participant observation, a reflective journal, and both formal and short focused interviews. Thematic analyses uncovered five themes that reflect the core of intensive care nursing practices and one theme related to the context. The main themes were gaining competence; assessing, anticipating deterioration, acting; collaborating to provide care; individualizing care; and caring.

Argentinian participants acquired their competence through a journey of learning. The journey provide them a 'know what' and a 'know how', that is their knowledge and skills. ICU nurses learn by repetitive exposure to clinical situations, from their peers and other practitioners. The knowledge and skills they acquired developed and mutated. They have understanding that lifelong learning was vital to their performance in intensive care. Experience helped nurses to perform intuitively. A significant skill was the ability of nurses to assess, anticipate deterioration and act in smooth, continuous fashion. Assessment allowed nurses to identify signs of clinical deterioration and respond appropriately in a timely manner. The patient's clinical condition was a driver

of nursing actions. Nurses were able to perform collaboratively. They understood their contribution to the team in terms of effective communication and understanding.

Caring attitudes were also uncovered. Participants made efforts to identify and meet patient particular needs. They tried to recognize the patient as whole and connect with the patient. Participants also provided compassionate care. They could understand patient suffer, even though it was difficult for them. They empathized with the patient. Sometimes they couldn't be compassionate; as a result detachment was evident. However they acknowledged their difficulty to balance detachment and compassion. Finally, intensive care nursing practice was influenced by the context and by some nurses' personal characteristics.

Understanding intensive care nursing practice is important for many reasons. First, it may inform future postgraduate education in the specialty of intensive care nursing. Second, it may guide in-service training. Third, it may assist managers in recruitment intensive care nurses. Lastly, it may serve as a foundation for future certification processes. While these findings provide a beginning understanding of intensive care nursing practices in Argentina; they highlight many issues for further inquiry. Additionally, this study provides a view of the gap between intensive care practice in Argentina and its counterpart in developed countries. Thus, it also helps to envision future developments of intensive care nursing as discipline in Argentina.

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<div align="right">Laura</div>

CHAPTER 1

INTRODUCTION

Florence Nightingale, founder of modern nursing in nineteenth century, asserted the nurse's role was to assist the nature reparative process [1]. And, while this holds true today, nursing has developed into a profession in its own right [2] with its own unique body of knowledge, scope of practice and educational preparation. This thesis focused on intensive care nursing practice in Argentina. Specifically, it explored the knowledge, skills and attitudes critical care nurses require. Gaining this understanding provides a foundation on which to ground both the education and practice development in intensive care nursing. This chapter first provides the background to the study, summarising nursing as a practice discipline in Argentina. Second, it outlines the problem, of not having a good understanding of the clinical practice of critical care nursing. Third, it details the aims of the research. Fourth, it describes the significance of the research. Finally, the structure of the thesis is given.

NURSING PRACTICE

The International Council of Nursing (ICN), the largest nursing organization worldwide, state the scope of nursing practice is not limited to tasks, responsibilities or functions [3]. ICN stresses the nurse's responsibility for 'articulating and disseminating clear definitions of the roles nurses engage in, and the profession's scope of practice (...) that should be consistent with international definitions and relevant to their nation health care needs'[3]. Consistent with this position the Royal College of Nursing (RCN) from UK claims that the way in which nursing seeks their purpose is the practice of nursing; though, to achieve its purpose nurses a) use knowledge, education, experience, and communication skills b) enable, empower, and work with patients, c) teach, and give information, d) perform in teamwork, and e) use personal qualities such as compassion, respect, integrity and a nonjudgmental approach [4]. Thus nursing is view as a practice discipline.

Nursing discipline has evolved enormously since Nightingale and it continues to evolve, thus what constitutes nursing practice and discipline is a perennial question. In fact, nursing scholars have investigated the issue in order to understand the practice and to develop theory to guide it [5]. Nursing professional practice and scope of practice has been defined as a way to distinguish nursing contribution to health care as well as to differentiate its focus from other health care disciplines. Nursing contribution is mediated by a particular mode of intervention. Nursing intervention is based on intellectual, physical, emotional and moral process [4]. Moreover, it is also clear that nursing scope of practice goes beyond a simple task or function; instead, nurses can lead, manage and develop research and policy.

Changes in international policy in higher education are influencing nursing education. The international cooperation in European higher education, that started with the Bologna Declaration have influence Latin American Region. More than a decade ago, some European countries engaged in coordinating policies towards the establishment of the European Area of Higher Education and the promotion of the European system of higher education worldwide [6]. More precisely, the Bologna Declaration aims to: a) adopt a system of easily readable and comparable degrees; b) adopt a system essentially based on two main cycles, undergraduate and graduate; c) establish a system of credits; d) promote mobility of students, teachers, researchers; e) promote European co-operation in quality assurance; and f) promote curricular development, interinstitutional co-operation, mobility schemes and integrated programs of study, training and research. Consequently; many changes have been made in higher education policy at national and institutional level. These changes led European nurses to identify generic and specific competencies for nursing graduates at bachelor's, master's, and doctoral levels. Competencies have been developed as elements representing a combination of attributes, abilities, and attitudes [7]. The same process has been mirrored in Latin America region. Generic nursing competencies for undergraduate education have been identified across the countries, including Argentina [8].

These international processes will potentially influence nursing education and practice at local level. Additionally, advances in technology and communication impose a rapid change in the contexts where nurses practice. It is within this context of rapid change that nurses have to gain and maintain their competence [9]. It can be expected this

international phenomenon in higher education may influence nursing education and practice in Argentina.

NURSING EDUCATION AND PRACTICE IN ARGENTINA

Nursing education in Argentina has a comprehensive variety of providers and programs. Two levels of practice are well identified; professional or registered and auxiliary or aid. Registration programs usually take 3 years of education, and are provided by tertiary facilities, hospitals and universities. Nursing education providers either university or technical vocational belong to higher education sector of the Argentinian educational system [10, 11]. The bachelor of nursing is awarded at universities after 5 years of study that include the registration period. Nurses that held a registration or professional nursing qualification, awarded by a technical vocational institution, can achieve the bachelor degree after 2 years of study at university. Further studies beyond the bachelor level have been slow to emerge. There are a few postgraduate nursing offers accredited in the national accreditation body [11].

Nursing practice is regulated by the Nursing Act, achieved in 1991. The Nursing act defines the scope of nursing practice. Registered/professional and bachelor nurses can perform direct patient care, manage nursing services, and undertake education and research duties; while auxiliary nurses can perform some interventions under supervision only [12]. Nurses, both professionals and aids, seek their registration at the Argentinian Health Ministry [13] if they work in the Capital City of Argentina, or the local Health Authority if they work in a province. Nurses in Argentina perform across the three subsystems (public, private and social security) of the Argentinian health care system. Although there is a national registration, there is no a unified system to acknowledge the number of nurses and their qualifications at national level [14]. In addition, there is a general perception of nursing shortages [14, 15] that make difficult to fulfill the needs of the system. Consequently, a large proportion of aid nurses makes it difficult to ensure adequate supervision of auxiliary/aid nurses, in both the private and public health sectors [14, 16]. This situation is compounded in the in rural and suburban areas. To recruit and retain qualified staffed in all facilities remains challenging.

Intensive care nurses in Argentina perform in the context previously described. In terms of education, there is no accredited program in intensive care nursing in the higher education system [11, 17]. Additionally the previously described context of practice challenges the provision on high quality care in the intensive care unit [15, 17, 18]. While in westernized countries intensive care nurses have consolidated, expanded their roles and education, and defined their scope of practice [19-23] in Argentina these developments are slow to arise. There is no clear picture about what kind of practices nurses perform or are engaged in Argentinian intensive care units.

THE PROBLEM

There is little empirical evidence available about intensive care nursing practice in Argentina. This is problematic for both practicing intensive care nurses and for their education. In terms of practice, without understanding the work of these specialist nurses, it is difficult to understand what skills and abilities they require to do their job safely. Further, the competence of intensive care nurses cannot be assessed without this understanding. Intensive care nurses in Argentina are concerned about the diversity and poor quality of graduate educational offerings, the lack of specialists and the unfavourable clinical/institutional networks that challenge the provision of care [17]. Yet, in order to take an evidence-based approach to rectify this situation, it is necessary to understand current practice. Given the Argentinean context in critical care in terms of education and provision of care, a description of current practices may help to gain first insight of intensive care nursing across the health system.

AIM

This study aims to describe the intensive care nursing practices in two private intensive care units (ICUs) in Ciudad de Buenos Aires.

Specific objectives
- To identify the knowledge embedded in the observed practice.
- To identify skills that nurses express in practice.
- To describe attitudes of nurses in practice.

SIGNIFICANCE OF THE RESEARCH

This research is significant for three reasons. First, a better comprehension of intensive care nursing practice will provide a foundation for understanding the competencies required in this specialty area. The Argentinian context, the complexity of the health care system and patients' needs demand a particular level of performance by intensive care nurses. Understanding the practices in the Argentinian context will informed potential improvement in the process of care. Second, understanding the knowledge, skills and attitudes required by intensive care nurses will inform curriculum development for both in-service training and speciality programs at universities. Comprehension of intensive care nurses' performance will also guide professional organizations to provide continuing education and to undertake certification and recertification processes. Finally, understanding contemporary intensive care nursing practice can provide the foundation for development of practice standards and research. Comprehension of nursing performance in intensive care will help managers to implement professional development strategies in clinical settings. Ultimately, these improvements may benefit the patient, by more skilled nurses providing care to critically ill patients.

STRUCTURE OF THE THESIS

Chapter 1 presents a background of the study, summarises nursing as a practice discipline and nursing practice in intensive care nursing in Argentina. The problem of not having a good understanding of the clinical practice of intensive care nursing is outlined. The aims and significance of the research are also described in this chapter.

Chapter 2 describes the emergence of the intensive care as a medical and nursing specialty. It introduces the role of professional nursing organizations in intensive care, and its influence worldwide. Research on intensive care nursing practices is presented. A critical analysis of the research that attempted to measure the intensive care nursing practice is provided; and studies that described nursing activities are examined. Some

individual investigated practices are also presented. Finally, issues on intensive care nursing practice in Argentina are summarised.

Chapter 3 presents, the theoretical underpinnings of the study and the ethnographic strategies used. The setting and sample characteristics, data collection tools and the journey in the field are also described. The way the analysis was undertaken is also depicted. Ethical considerations and limitations are presented.

Chapter 4 presents the themes and categories emerged from the analysis. Each them and category is illustrated with representative quotes and descriptive field notes.

Chapter 5 provides a detailed discussion of the finding. A dialogue of the findings with the latest or significant available evidence is presented. Limitations of the research are acknowledged. Recommendations and implications for practice are made explicit. Finally, this chapter details the conclusions drawn from this study.
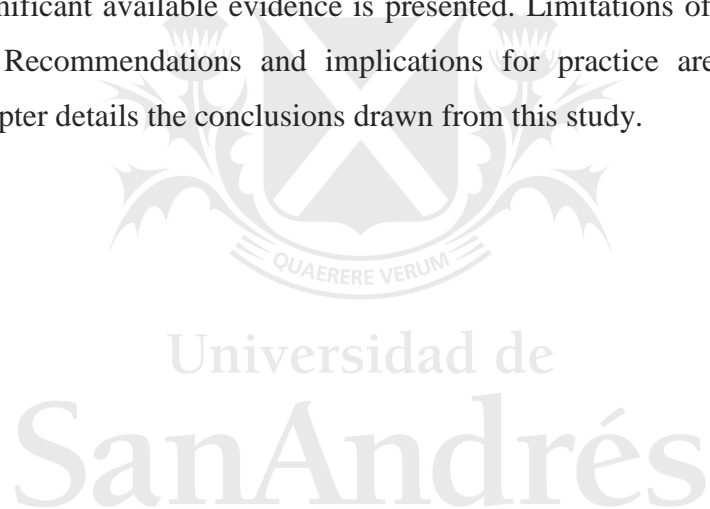
CHAPTER 2

LITERATURE REVIEW

INTRODUCTION

Intensive care is a complex specialty devoted to care for some of the most vulnerable patients of the health care system. The specialty has evolved enormously during the last few decades and intensive care nursing has grown simultaneously. This chapter presents a review of the literature on intensive care nursing practices at the international and national level. The evidence, while helping to understand current practices, also shows the gap in the Argentinian context. This section describes briefly the intensive care nursing practice worldwide, including the role of international nursing bodies. The Bologna process, mentioned in the previous chapter has the potential to influence local nursing education and practice generally, and intensive care unit (ICU) nursing specifically. The internationalization of critical care nursing organizations that may provoke other changes in intensive care nursing education and practice in the Latin American region is also presented. Evidence on intensive care competencies and practices is summarized. As a result of the evidence reviewed, issues associated with ICU nursing education and practice in Argentina are presented.

INTENSIVE CARE NURSING WORLDWIDE

Intensive care today is a common service worldwide known for providing care to some of the most complex and vulnerable patients. The concept of intensive care as a dedicated space for the sickest patients was introduced by Florence Nightingale [24]. Historically, the concept, practice and technology in the intensive care have evolved enormously since Nightingale times. Technology for life support has been pivotal to the development and definition of intensive care. The second half of the twentieth century has witnessed the emergence of units that aimed to compensate for organ system failure [25]. For example, the poliomyelitis victims' need for life support, forced the

application of manual ventilation through tracheostomies or by the use of "iron lungs" for saving lives in USA and Denmark [25, 26]. In the Latin American region, intensive care was established by the end of 1960s or early 1970s [15, 26].

There is a lack of consensus on the use of the terms intensive care, intensive therapy and critical care, which are then used interchangeable [25]. Intensive care was recently defined as an "advanced, highly specialized care provided to medical or surgical patients whose conditions are life-threatening and require comprehensive care and constant monitoring (…) in a specially equipped unit of a health care facility" [27]. Nurses have also defined the term. Intensive care nursing is an specialty under the umbrella of a broaden term "critical care" [28] defined as a complex specialty developed to serve the diverse health care needs of patients with actual or potential life threatening conditions [29]. Intensive care is related to the space in an acute care facility where this specialized care is provided. It is widely known that care is provided by a comprehensive range of disciplines that work collaboratively [24, 30, 31]. Nurses are part of the core of disciplines that provide this complex care [24, 30]. For the purpose of this study, intensive care is referred to units specially equipped and staffed where specialised care is provided to critically ill patients.

While intensive care medicine as a discipline was gaining its identity, intensive care nursing was evolving concurrently gaining its own knowledge, status and recognition within the healthcare community [24]. Intensive care nurses have organized themselves into professional organizations. The American Association of Critical Care Nurses [32] was founded in 1969. An extension of this association in Canada in 1975, become the roots of an independent organization formally established in 1981 [33]. In UK, critical care nurses formally launched their organization in 1985 [34]. In the Australian context, state branches achieved national unity in 1991 [35]. While in most westernized countries intensive care nurses has been organized in independent professional bodies, in the Latin American region most of the intensive care nursing professional organizations have emerged later, and under the umbrella of intensive care medicine organizations or within a national non-specialist nursing body [36]. Nursing organizations of intensive care specialty has continued expanding beyond national frontiers. The internationalization process made possible the emergence of an European Federation of National Critical Care Nursing Organisations in 1999 [37], a global body

in 2001 [38] and lastly the Federación Latinoamericana de Enfermería en Cuidado Intensivo in 2006 [36]. Most of the national nursing bodies previously mentioned have active participation in these international organizations. Although most of these organizations name themselves as critical care organizations, and critical care is their main focus; intensive care is a predominant and permanent issue of their activities. The role of professional organizations varies according to the country and culture. Generally they represent the nurses in the specialty, provide education and guidance to their members and also provide advice to other interested parties in related professional matters. The role of these professional organisations in influencing intensive care nursing practice is examined next.

THE ROLE OF PROFESSIONAL ORGANIZATIONS

It is expected a professional organization will influence practice in many ways. One of the ways is the provision of standards for practice. Most standards for nursing are position statements of organizations from westernized countries. Current ICU standards are related to practice/performance, provision of education and workforce. The American Association of Critical Care Nurses has "authoritative statements that describe the level of care or performance common to the profession of nursing by which the quality of nursing practice can be judged." Standards are related to Acute and Critical Care Nursing Practice [39], Practice and Professional Performance for the Acute and Critical Care Clinical Nurse Specialist [40] and for the Acute Care Nurse Practitioner [41]. In the Canadian context, the national critical care nursing organization has stated seven standards of practice [33]. Underpinned by large national study, The Confederation of Australian Critical Care Nurses Inc. described 20 competency standards with their respective elements and performance criteria within 6 domains for specialist critical care nurses [28]. Since these Australian standards are defined based on research, they will be described in more detail later on this chapter.

All of these standards consider different levels of practice such as entry to practice, specialist and advanced practice. Standards also stress that intensive care nursing practice occurs within multidisciplinary framework where nurses' contribution is based on their own knowledge. Position statements related to workforce and education in

intensive care have also been developed. National positions statements related to these matters were developed in England [42] and Australia [43, 44]. At regional level, European critical care nurses are the unique example of a multinational organization developing standards [45, 46]. Globally the World Federation of Critical Care Nurses (WFCCN) have also stated similar position statements regarding education [47] and workforce [48].

Nursing organizations are playing an influential role at national and international level, yet their scope of influence is difficult to measure. However, the phenomenon of internationalization and globalization make it impossible for any given country or culture to be isolated from its influence. Although practice can vary according to the context there are some commonalities in terms of standards for practice, education, and workforce. But none of these standards currently exists in Latin America or Argentina. The next section critically examines the scope of practice of intensive care nursing.

INTENSIVE CARE NURSING PRACTICE

Since Florence Nightingale's time advancement in intensive care technologies and therapies has increased the complexity of patient care and the chance of recovery [49]. Practice has evolved from dependency of medicine, supervised intervention towards and independent, autonomous and expanded practice [24, 50]. Today, intensive care nurses have a variety of roles. They can be intensive care nurse managers, clinicians and researchers. Clinical duties vary from providing bedside care to providing expert consultancy and performing complex procedures [23]. Expert performance roles are generally known as advanced practice [22]. These roles, vary according to the context; most are developed in westernised countries and have formal higher education. Some countries have certification processes, and most of them are formally recognized in practice [19, 21, 51]. In addition, intensive care nurses provide care for critically ill patients across of life span and a range of specialties. This level of specialty has resulted in units dedicated to general surgery, cardiothoracic surgery, trauma, neurosurgery, burns, transplantation, neonatal and paediatrics [24] to name a few. Nurses perform across all the sub-specialties. Hence, intensive care nursing practice today is broad and complex. Resent evidence, presented next, has been chosen purposively to provide a

picture of contemporary nursing practice at the patient's bedside in general intensive care units or medical surgical intensive care units, and not these sub-specialties.

Scope of Intensive Care Nursing Practice

This section provides an overview of the research that has focused on the scope of intensive care nursing practice. Throughout the world, intensive care practice varies and research that focuses on it reflects this variation. This section will focus on two kinds of studies on intensive care practices. First, attempts of researchers to capture the scope of intensive care nurses work, in order to be able to identify staffing needs is described; second, a summary of activities undertaken by intensive care nurses.

In Europe in the 1990's there was an emergence of studies to develop tools to measure nursing workload in intensive care. In 1991, an Italian group of researchers developed a time oriented score system (TOSS) to quantify nurses workload required to provide care to ICU patients [52]. Nursing activities were timed in 14 different ICUs participating in the multicentre study. Activities were then grouped in different homology lists, complied according to operative similarities. Some lists include general nursing acts, which are common to all patients admitted to ICU, others include interventions for different organ system abnormalities or ancillary duties. Emergency and infrequent activities which were not encountered in every patient were also included. Researchers claimed that the tool helps to determine nurse patient ratios. Although this tool was one of the first developments to measure nursing work, there is no published literature on the application of the tool since then. Importantly, this research was limited in that it suggests nursing is limited to a number of tasks and does not capture other aspects of professional practice.

In a similar trend, Miranda et al. [53] developed and validated the Therapeutic Interventions Scoring System (TISS), commonly known as TISS 28. This score includes nursing activities related to therapeutic procedures, patient care activities, indirect patient care; organizational activities; personal activities and other. Although, it was recognized that the tool was not readily accepted by nursing staff [54], the tool is used in the Latin American context, and some facilities still use it to allocate nurses in

intensive care. The tool is focused in therapeutic procedures, without consideration of other aspects of professional practice such as patient and family education and support; and does not reflect the simultaneous activities nurses perform in intensive care. In late 90's, the same group of researchers, published the nine equivalents of nursing manpower use score [54], based on the previous work of TISS. Although the tool was more accepted by nurses [55], in essence it is still based on therapeutic and technical procedures.

Finally, almost a decade later, the nursing activities score (NAS) was developed [56]. The tool was constructed based on the previous studies. It is used in some European countries and Brazil [57, 58]. It considers communication with patient, family and staff, essential care such as hygiene, or turning patient position. However, all of these studies are focused on measuring bedside nursing activities, procedures, and technical interventions. Patient and family education, infection control, other essential care (skin care, oral care), decision making based on complex monitoring and assessment, the patterns of interaction and collaboration with other team members were not captured by these studies and neither were they measured by these tools. Thus, while these studies may have been undertaken to help quantify staffing requirements, they are limited in understanding the scope of intensive care nursing practice because they selectively measure only certain aspects of the practice.

A second series of studies has been undertaken to try to capture a broader scope of activities undertaken by intensive care nurses. For example, Goldman [50] asked a group of intensive care nurses what aspects of their care were the crux of their practice. Participants' answers included: observing and monitoring, assessment of therapies and interpreting results, reporting changes to medical staff, writing progress reports, assessment of pressure areas and resulting care, dressing, attending to hygiene needs, administration of drugs, and psychological care of patients and relatives. Other authors have studied nurses in intensive care, expanding the knowledge on intensive care practice. The main focus of these studies is how nurses use their time in intensive care. Table 1 summarizes four studies from UK, USA and Australia and their findings.

Table 1. Studies on nursing practice in intensive care.

Author Country	Sample	Data collection	Main findings
Abbey et. al. [59] Australia	The setting was a 12 bed ICU of a private hospital in Queensland. Ten bedside ICU nurses were observed during the day shift.	Time and motion observational methodology.	Nurses use of their time in intensive care. The major work activity for the ICU nurses were: • Direct care 40.5% of their time, the most frequent activities were: admission and assessment, patient/family interaction, procedures • Indirect care 32.4% of their time, the most frequent activities were: coordination of care: rounds, team meetings, room/equipment/setup/cleaning, medication and IV preparation • Personal activities 21.9% of their time • Unit-related 5% of their time. The ICU nurses undertook ≥ two activities simultaneously for 43% of the study timeframe.
Adomat and Hicks [60] United Kingdom	48 continued shifts in two ICUs over 16 day period in each ICU. Unit A (10 beds), and Unit B (6 beds). 710 nurses with different skill mix were observed.	The study involved: Use of video recordings to observe nursing care. The videotapes were then analysed by a separate panel of 10 experienced ICU nurses, using an activity schedule developed for that purpose.	Nurse activity classification and nurse workload • Nurses spent more time caring for more complex patients, but there was also a time that these patients were left unattended. • The nurse activity classification showed that: - Unit A: nurses spent more time with the more complex patients as was expected. But there is also a time these patients were left unattended. - Unit B: nurses spent more time with high dependency patients (i.e. less critically ill) instead of being with those classified as more complex.
Harrison and Nixon [61] United Kingdom	7 bed ICU of a large district general hospital in the north-west of England. 39 nurses with different skills mix participated.	Self-reporting diary log sheet that identified the focus of an individual's activity at 5-minute intervals, over a 7-day period.	Nursing activity in general intensive care • Nurses spent 85% of their time in activities associated with providing direct patient care. Activities and percentages of the time used by nurses: - Direct nursing care (24 %), Clerical nursing duties (17%), Patient assessment (38%), Time out, patient-focused activity (6%), Non-nursing duties (4%), Time out, personal activity (10%), Others (1%)
Wong et al. [62] USA	Ten ICU nurses, in a 10 bed surgical ICU at a Veterans Affairs medical Center. Intervention: installation of an ICU information system.	Prospective data collection using real-time time-motion analysis, before and after installation of the ICU information system. Measures were taken during 4 h observation period.	Intensive care unit nurse task activity after installation of a third-generation intensive care unit information system Nursing activities were grouped in 5 categories: Direct care, indirect care, documentation, administrative and housekeeping. • The percentage of time spent on documentation decreased after the ICU information system was installed. • The percentage of time providing direct patient care, doing patient assessment, a direct patient care tasks, increased after the intervention.

ICU: intensive care unit

A decade ago in UK, Harrison and Nixon [61] identified that nurses used most of their time in providing direct patient care. Based on previous studies, they developed a list of nursing practices that were measured by self-reporting of participants. The researchers considered direct nursing care, clerical nursing duties, patient assessment and time out, patient-focused activity as the core of a professional nurse in intensive care. Some non-professional activities were also identified. As recognized by authors, the self-report method of data collection might have biased the results. Besides collecting data every five minutes while working might have compromised the accuracy of data because of the potential conflict placed by simultaneity of both activities. In spite of these limitations, the findings provide understanding of how nurses use their time in UK.

In the USA, Wong et al. [62] studied nursing practices to determine the percentage of time nurses spend on documentation and other activities before and after the installation of an informatics system. Since the emphasis of the study was testing the informatic system, nursing documentation has a good level of detail. But, the items related to essential care such as oral care, skin care that should be provided and documented are not listed. Data was collected in periods of 4 hour time; it is possible that there was no opportunity to observe some specific nursing activities.

Again in the UK, Adomat and Hicks [60] identified what nurses do at bedside during a typical shift and how much time nurses spent with patients. Patients were categorized in terms of their requirement of nursing care. The study was undertaken in two ICUs, and had many stages. First, they used nominal group technique to gain a consensus agreement of nurse activity in ICU. Further consensus was gained surveying 10 ICUs in West Midlands. Then, they used a nominal group technique and the results of the survey for developing a Nurse Activity Classification Observational Activity schedule. Finally, they use this classification system to identify nurse's activities in the recorded videos. The focus of the study was to generate evidence to change the nurse patient ratio. The authors argued that more complex patients are left unattended. Although they provided the skill mix of the staff, it is difficult to judge if it was appropriate since a definition of different grades of nursing staff was not provided. The video recording captured a bedside and a general unit picture, but no voices were recorded. Thus, nursing activities that required a dialogue and factors that might have influenced nurse's performance might haven't been captured.

Finally, the last evidence of this research series is an Australian time and motion study. Abbey and colleagues [59] found that nurses regularly perform multiple activities simultaneously. The activities were grouped into major categories, direct, indirect, unit related and personal. The list of observed activities was based on previous studies. Direct care, considered the core of the ICU activities, consumed most of nurses' time. As stated by the authors, the evening night shifts were not studied, some activities might have been missed. However, this study provides a comprehensive understanding about the activities nurses undertake in intensive care and the time they take. Importantly, it also provides evidence of the simultaneous activities nurses perform, reflecting the complexity of intensive care nursing duty.

Studies presented in Table 1 describe both the activities intensive care nurses undertake and the time it takes to undertake these activities. But, all of these studies group nursing practices in several major categories such as nursing assessment, coordination of care and medication preparation. Although there are differences in the way the researchers conceptualize major categories, direct care, indirect care, clerical activities are common. In addition to this approach to measuring groups of activities, another body of nursing research has examined specific practices that intensive care nurses undertake. Some of these practices, such as pain management, decision making, ICU diaries and end of life care are particularly important in ICU; but, they are not the focus of this research. Thus exemplars of research related to these practices are provided in Appendix 1 to help the reader unfamiliar with ICU nursing, understand some of the complexities of contemporary practice.

The literature presented so far provides understanding about what nurses do in intensive care and how researchers had made efforts to capture and measure what nurses do. However, intensive care nursing practice is complex and varied. And, while some practices are measurable in quantitative terms, others are more amenable to qualitative research such as the diary studies presented in Appendix 1. Besides, nurses are multitasking; they simultaneously perform procedural and non-procedural complex interventions. To effectively perform each of the described practices; nurses make decisions to accomplish their aims within a clinical situation. Nurse's decision making process is complex; nurses make decisions while undertaking multiple activities. This

kind of performance, require a specific competence. The next section will explore the concept of competence in intensive care practice.

COMPETENCE, KNOWLEDGE, SKILLS AND ATTITUDES

Competence is generally considered to encompass knowledge skills and attitudes. The Merriam-Webster defines knowledge as acquaintance with or understanding of a science, art, or technique. It seems that time and experience influence knowledge acquisition. Skill is defined by Merriam-Webster as the ability to use one's knowledge effectively and readily in execution or performance. Finally, the same dictionary defines attitude as a feeling or emotion toward a fact or state. Thus, the term competence is linked to both the cognitive understanding and ability to perform a task as well as to the associated emotions held towards that task. But what does competence means specifically for intensive care nursing?

There are many ways to define competence and there is no agreement with regard to nursing practice [63]. But, there seems to be agreement regarding what is required for competent nursing practice. Cowan [63] and Meretoja and Leino-Kilpi [64] stress that nursing practice requires the application of a complex combination of knowledge, performance, skills, values and attitudes in every situation. The American Nurses Association (ANA) proposes that competency is an expected level of performance that results from an integration of knowledge, skills, abilities, and judgment [65]. Thus, there is general acceptance that competence is multidimensional, encompassing knowledge, skills and attitudes [66-68].

Benner, whose work in the area has had worldwide influence, proposes a different perspective to think about competence. She states that nursing is a socially embedded practice that aims to promote recovery and wellbeing of people. She stresses that nursing is organized coherently, and therefore is more than the sum of tasks and techniques [69]. Based on her seminal study "from novice to expert" in critical care nursing practice, Benner points out a different relation between theory and practice. The traditional relation was that the "know that" precedes or guides the "know how". Benner demonstrated that practice is also guided by the attention given when treating patients

and family responses. She stressed that the way nurses face clinical problems of particular patients, by understanding the human concerns of illness and suffering, and ways of coping also shape the practice [69]. In her work, she defined four levels of practical performance in critical care nursing, advanced beginner, competent, proficient, and expert [70]. The study, described how nurses interpret a clinical world, and how is the journey for gaining competence. The journey starts when the nurse can focus on prescription of tasks, has no clinical judgment and inability to see a whole situation. The expert level is achieved when nurses can grasp a whole situation, manages simultaneous problems, and anticipate a course of action. Benner proposes a new concept of knowledge, the "skilled knowledge" which refers to that knowledge embedded in practice, gained by experience [71]. Yet, Benner's work has been critiqued in part for her emphasis in linking intuition to expertise [72], and the criteria used for assigning the levels of competence [73]. It was argued that intuition is a condition for expertise but is not sufficient [74]. Additionally, it was stated that Benner's model undermines issues of power, and that the strong emphasis on intuition does not rise the status of nursing knowledge [74]. However, Benner's contribution has been valued because her work examined the nature of nursing practice, thereby; a better understanding of professional nursing practice was gained [75].

Benner's work provided details about how intensive care nurses gained their expertise, and gave account of the complexity of nursing practice in intensive care. While her contribution helps to understand how nurses acquire their competence in intensive care; it is also important to consider that intensive care nursing practice today is more complex than the times when Benner was researching it. Additionally, nursing practice change according to the context where nurses perform. Thus, context prints on nursing practice a unique trait that belongs to that particular setting, culture, or country. Competence in intensive care has been focus of research in Canada, Australia and South Africa. Authors from Finland have reviewed the topic, while in USA a nursing model has been developed.

In Canada, Fitch et al. [76] used a modified Delphi technique followed by four survey rounds to identify specialty competencies. Nurses that worked as clinicians, educators, managers and researchers in all Canadian provinces participated. An initial list of 621 competencies was reduced to 400 competencies by the end of round 4. The main

concepts are summarized in Table 2. The results show that specialty competencies are built on a group of basic nursing skills. Interestingly, the competencies related to personality traits were not expected by the authors [76].

In Australia, using observational research, twenty competency standards with their respective elements and performance criteria within 6 domains for specialist critical care nurses were described [28]. Eight hundred hours of observation of critical care nurses were performed across 57 hospitals. Observers were asked if the results reflected what they had observed in practice as a further validation of results. The main domains are shown in Table 2.

In the South African context, Scribante et al. defined critical care competencies using a focus group approached [77]. Participants were bedside clinicians, managers and educators. The study resulted in the formulation of guidelines for the competency requirements of critical care nurses, as described in Table 2.

The Synergy Model was developed by Curley for the American Association of Critical-Care Nurses (AACN) Certification Corporation [78]. The core of the model stresses that patients and family influence and drives the characteristics or competencies of nurses [79]. Then, when match between patient and nurses characteristics occur, patient outcomes may be optimized [78]. Characteristics of patients, clinical units and systems of concern to nurses that influence nurse's performance are: resiliency, vulnerability, stability, complexity, resource availability, participation in care, participation in decision making and predictability [79]. A summary of the nursing competencies are presented in Table 2. The model formerly developed for accreditation purposes is currently used as a framework for higher education in intensive care [80] and clinical practice [81].

Finally, a recent literature review by Aari [82] identifies four main domains of clinical and professional competence. Clinical competence can be divided into three sub-domains and professional competence into four. In addition, the sub-domains encompassed several themes. The author refers to "clinical competence as the capability of a nurse to acceptably perform duties directly related to patient care," while professional competence is defined as the "capability of a nurse to acceptably perform

duties related to the profession in general" [82]. Other researchers, Lakanmaa et al. [83] have confirmed the Aari findings, and added a personal base competence domain. Consistent with previous research these Finnish authors suggest that the idea of competency in intensive care is multidimensional. Table 2 summarises main concepts of these publications.

Table 2. Summary of evidence on competence, core concepts and concept.

Author / Country	How the concept of competence was develop	Dimensions of competence	Concept/notion of Competence
Aari et al. [82] Finland.	Review of literature	Clinical competence Professional competence	Concept of competence is multidimensional. Competence is based on the knowledge, skills, attitudes and experience domains.
Confederation of Australian Critical Care Nurses Inc . [28] Australia	Research	Professional practice Reflective practice Enabling Clinical problem-solving Teamwork Leadership	Competency is the overlap of knowledge with the performance components of psychomotor skills and clinical problem solving within the realm of effective responses.
Curley [78] USA	Model developed by a professional organization	Nurses competencies of concern to patients, clinical units and systems • Clinical judgment • Advocacy and moral agency • Caring practices • Collaboration • Systems thinking • Response to diversity • Facilitation of learning • Clinical inquiry (innovator/evaluator)	Needs of patients and families influence and drive the competencies of nurses
Fitch et. al. [76] Canada	Research	Specialty knowledge built on communication, interpersonal and team skills, holistic and professional behaviors. The competencies include basic nursing skills	Embracing attitudes, skills and knowledge
Lakanmaa et al. [83] Finland	Research	Clinical competence Professional competence Personal based	Concept of competence is multidimensional.
Scribante et al. [77] South Africa	Research	Professional competency Cognitive competency Interpersonal skills Critical patterns of interaction	Competency required can't be broken down into specific or definite entity, should be a continuum from low to high competence.

All of the competence research described in Table 2, have commonalities, despite being developed in a variety of contexts. The concepts of professional practice, professional behavior, professional competency, clinical competency underlie all of these positions. The notion of competency based on knowledge, skills and attitudes is also common to most of them. These studies contribute to practice in different ways. The Canadian study shows specialist knowledge built on basic nursing competencies. The guidelines are focused on procedures and operative/practical nursing tasks, what may facilitate its application. The Australian work, formulates a broader definition of competence, it includes research based practice. The defined performance criteria may facilitate their application in practice. An extended formal education for achieving a specialized level of practice is stated in South Africa. It includes a broader conceptualization of interpersonal skills and patterns of interaction. Considering the patient's condition as a driver of nurse's performance is a significant contribution of the American Synergy Model.

In summary, Benner frequently cited definition of competence is 'the ability to perform the task with desirable outcomes under the varied circumstances of the real world'[69]. Yet, this definition, while capturing two main dimensions, does not reflect the attitudinal component others describe as part of competence. In a competent practice, knowledge is overlap with performance components of psychomotor and clinical problem solving skills for an effective response to clinical situations. Dunn [84] stresses that competency is not a skill or task to be 'done' but characteristics required in order to act effectively in the nursing setting. She also stated that competence cannot exist without scientific knowledge, clinical skills and humanistic values; hence competency standards transcend each of these. While the body of research on intensive care nursing competence is growing, there is no evidence of such work in Latin America or Argentina. The next section explores what is known about intensive care nursing practice in Argentina.

INTENSIVE CARE NURSING PRACTICE IN ARGENTINA

Issues grappled with by intensive care nurses in Argentina relate to an appropriate education framework for specialist intensive care practice, accreditation/certification of

practice, clinical research and the context within nurses practice. These issues are discussed now. This discussion will be based on the International Council of Nurses (ICN) framework for specialist nursing practice. The ICN has established criteria for specialist practice in 1992 [85] and revised in 2009 [86].

The ICN define the Nurse Specialist as 'the nurse prepared beyond the level of a generalist nurse and authorised to practice as a specialist with advanced expertise in a branch of the nursing field' [86]. The ICN emphasises this concept of specialist practice is based on several assumptions. The specialist practice must be founded on the general qualification as a prerequisite to entry to the specialist level. The specialty must subscribe the overall purposes, functions and ethical standards in nursing; and consider itself as nursing specialty. The practice is sufficiently complex and advanced, and differentiated from general practice. The specialised expertise is gained via an approved education program that is awarded a recognized qualification [86].

If the intensive care practice in Argentina is considered against the ICN assumptions; although the criteria are met partially, several issues arise. First, there is basic professional level, based on university education [17] that is consistent with the entry to specialist practice. Second, in practical terms, specialist practitioners define themselves and subscribe as specialists usually through their professional bodies. The specialist bodies determine the standards for practice, functions and ethical principles [28, 29, 39-41, 47, 48, 76]. In Argentina, it is not clear the way intensive care nurses define themselves as specialists. Nurses participate in professional organization under the umbrella of multidisciplinary organization in the specialty or under a general nursing body [36]. However the overall purposes, functions, standards and ethical principles of the intensive care nursing as a specialty haven't been defined as has occurred in other countries. Third, there is a common consensus that intensive care is a differentiated practice of the general practice. Although, there is a general knowledge that intensive care nursing specialty has been recently acknowledge by the Argentinian Health Ministry, there is no public access to that information yet. Additionally, the practice hasn't been studied, thus there is no empiric evidence of the intensive care nursing practice. Finally, specialized knowledge should be acquired through a formal recognized education program [47, 87]. In Argentina there is no intensive care nursing accredited clinical programs in the higher education system [11]. In general, there is a

variety of educational offers; promoted and organized by professional organizations, technical-vocational institutions, some universities and health care facilities. While the perceived variety of educational programs can be positive; the evidence and curriculum that inform these programs, the level of competence that students achieve and the availability of qualified faculty is unknown. Besides the variation of providers, there is also significant difference in the duration of programs, theory content and clinical practice. Some private and public hospitals have put in place residency programs in intensive care. Due to the staff shortage, students can be considered staff compromising their education. To recap, although basic nursing education in Argentina is provided by universities; there is no accredited program of specialist education in intensive care in the higher education system. An additional issue is that overall functions and standards to inform a specialist practice haven't been defined yet.

Furthermore, according to ICN, specialist practice includes take on a variety of roles. These roles of specialist practice encompasses roles in clinical, research, education, administration, quality improvement, professional development and consultancy areas [86]. In Argentina, clinical, education, and administration roles in intensive care are common positions. In clinical services, the bedside clinician, and the nurse unit manager are well recognized at institutional level. And, there is one report of an advanced practice clinical role described beyond the intensive care setting similar to the outreach or liaison services reported in Australia and UK [88]. In terms of education in intensive care nursing, the role well known is the lecturer of undergraduate university programs. The intensive care educator who performs at unit level as reported in the international literature [87] is unknown. To sum up, while roles of bedside clinician, nurse unit manager and intensive care lecturer of undergraduate programs are well known; there is no evidence of the operation of roles such as consultancy, research, and quality improvement in intensive care. The research community is in its embryonic stage in Argentina. Identifying the gaps in evidence that emerged from practice required a reflexion on how the practice is performed; benchmarking the practices with the best available evidence. This reflective practice helps to identify quality improvement and research problems. The embryonic stage of formal postgraduate education at university influences the production of research. Research is one way to develop specialty knowledge, yet intensive care nursing research in Argentina is almost non-existent.

Further, in most westernised countries, besides the university specialised qualification, practitioners accredit and certify their competence [65, 89]. This certification and accreditation status although not compulsory, provides assurance of the competence of individual intensive care nurses. These processes of regulation of competence are slow to emerge in Argentina.

Finally, regarding the context in which intensive care nurses practice, polar situations emerge depending on the scenario, private, public, urban or suburb areas [15, 17]. Most suburb and public facilities are understaffed and are accused of providing substandard care [15]; poor coordination in the public health care system increases the incidence of complications and length of stay among intensive care unit patients [90]. Private ICUs are generally considered better equipped and staffed, but most important facilities are concentrated in great urban areas [17]. To recruit and retain qualified staffed in all facilities remains challenging [14]. Nursing structure at unit level lacks the support of education staff as described in developed countries.

These issues of lack of formal recognition of specialty, the embryonary development of nursing higher education, the variety of education and training programs with little control, paucity of research, and the traits of clinical settings are challenging the provision of high quality intensive care. There is no clear picture about what kind of practices nurses perform or are engaged in Argentinian intensive care units. A description of intensive care nursing practices will help to understand the competence required for these specialty nurses. Ultimately this evidence will provide a beginning framework upon which professional practice can be built in intensive care nursing in Argentina.

SUMMARY

This literature review on intensive care practices presented the development of intensive care worldwide, the emergence of the professional organizations, their role and potential influence in intensive care education and practice. The research related to the different approaches for studying intensive care nursing practice was presented. This includes the literature on the tools developed to measure the practice and the studies that describe

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contemporary intensive care nursing practice. For understanding the concept of knowledge, skills and attitudes evidence on intensive care competence was provided. Finally the issues and concerns around nursing higher education in intensive care and the context within intensive care nurses perform in Argentina were presented. Unfortunately, the lack of local evidence on the topic made difficult to describe intensive care nursing in Argentina. This lack of Argentinian evidence provides the rationale supporting this study. Understanding intensive care nursing practice may improve evaluation of care and serve as foundation of a future competence framework within the Argentinian Health Care System. In addition, it could inform the curriculum for higher education in the specialty and guide in-service training and continuing education in clinical settings. The method used to gain a better understanding of intensive care practices in Argentina is the focus of the next chapter.

CHAPTER 3

METHOD

INTRODUCTION

An understanding of intensive care nursing practices provides a foundation for the development of clinical competencies and educational programs. While research on intensive care nursing practices has been undertaken in several countries such as Australia [84], Canada [76] and South African [77], it has not been studied in Argentina. This current study aims to describe the nursing practices in two private Argentinian intensive care units (ICU). This chapter presents an explanation of theoretical framework in which the study was situated and the ethnographic approach used in the research. Details about the sampling methods, data collection, and analysis are included in this chapter as is a description of the ethical considerations and limitations of the research.

THEORETICAL FRAMEWORK

There are a variety of traditions or theoretical orientations for inquiry that contemporary researchers use. Recent decades have witnessed the emergence of post positivism, critical theory and constructivism as competitors to the traditional positivism school of thought [91]. While positivism seeks to discover the true nature of reality and how it actually works, post positivism recognizes the imbalances of the process of inquiry and proposes strategies to face them. Critical theory is an ideologically oriented form of inquiry, which focuses on critique of the real world [92]. Conversely, constructivism, formerly termed naturalistic inquiry [93, 94], states that 'reality exist in the context of a mental framework for thinking about it' [92]. It is for this reason that it is an ideal framework to underpin this research on how intensive care nurses view their practice.

Constructivism assumptions are based on the idea that reality 'is considered an inter-subjective world of cultural objects, meanings and social institutions derived as a consequence of social interaction' [95]. Guba and Lincoln [91] claimed that these assumptions respond to three philosophical questions from ontological, epistemological and methodological perspective respectively 'a) What is the form and nature of reality and therefore what is there that can be known about it? b) What is the nature of the relationship between the researcher and what can be known? and c) How should the researcher go about gathering knowledge to answer the research question? Answers to these questions assist in understanding the way knowledge is generated under the constructivism umbrella. From the ontology perspective, 'realities are apprehend in the form of multiple, intangible, mental constructions, socially and experientially based and specific in nature' [91]. The researcher and the object of inquiry are interactively linked so the findings are formulated as the inquirer proceeds according to the epistemology lens. Finally, the methodology implies the interaction between and among the investigator and respondents; so individual constructions are elicited from this interaction [92]. That is, individuals construct their understandings of the world based on their interactions in it.

Constructivism has been suggested for gaining understanding of all parties involved in health care services [96]. The assumption that multiple realities that emerged from 'social constructedness' [95] requires the acceptance of other beliefs and points of view. Constructivism, offer a highly robust and practical framework as a theoretical umbrella for nursing research [97]. Intensive care nurses perform in intensive care units; the unit becomes their natural setting. Therefore, lenses of this tradition were adopted for gaining understanding of the most common practices in two private Argentinian settings.

RESEARCH DESIGN – ETHNOGRAPHY

A description of intensive care nursing practices was the main aim of this study. Particularly, it was sought to identify the knowledge, skills and attitudes embedded in nursing practice. An ethnographic approach was used to meet this aims. Ethnography is a method formerly used in anthropology and social sciences. 'Ethnography seeks to

build a systematic understanding of all human cultures from the perspective of those who learned them' [98]. Ethnography is used to describe and explain the regularities and variation of social behaviour [98, 99]. Other authors consider ethnography as a process and a product since it involves fieldwork, the organization of collected material, the edition and a presentation in a prose form [100, 101]. In order to gain understanding of the culture from the native perspective [98], the researcher needs to be immersed in and exposed to the culture for a long period of time. Anthropologist labelled this kind of research 'macroethnography' [100]. Conversely, another way for ethnographic approach, used in educational research is 'microethnography'; also known as focused or specific ethnography [100]. Microethnography focuses in a particular setting, it aims to understand and capture a 'cultural ethos' mirrored in selected aspects of life instead of drawing the whole cultural system [100]. In nursing, microethnographies focuses on 'subcultures or settings such as a single ward or a group of specialist nurses' [102]. Nurses have used microethnography to examine behaviours and perceptions in clinical environments [102]. In the field of medical sciences, aiming to comprehend a narrow aspect of health care culture and behaviour, the use of mini-ethnography was suggested in family medicine education [103] and transnational competence medical education [104]. While anthropological ethnographers tend to spend long periods of time in the field; in health sciences researchers have used 'miniethnography' as way to focus on in a particular aspect of a health phenomenon [95].

The aim of ethnography is to understand a socio-cultural context, processes and meanings of a cultural system. To achieve this understanding the researcher should maintain both emic and etic approach. The 'emic' attempts to comprehend the components of a cultural system from the native perspective; while the 'etic' acknowledges and capitalises on the researcher as an outsider [105]. While use of the etic perspective may seem incongruent with constructivism, it was used in this study to question participants about their practice in order to gain insight into it. That is, the researcher adopted this 'naive' perspective, when asking participants to explain their perceptions. In order to accomplish both the emic and etic perspectives, the researcher must get into the field of study; and should apply a variety of data gathering strategies. Participant observation, formal and focus interviews, and a researcher journal [106] are some common data collection strategies used in ethnographic research. There are no published studies about the Argentinian nursing practice in general and intensive care in

particular. Consequently, a mini-ethnographic approached was considered appropriate for gaining an understanding of the research object, intensive care nursing practice.

SETTING AND SAMPLE

The setting for this research was two medical-surgical ICUs that had 15 and 16 beds respectively; both belonged to two private referral hospitals. The hospitals also provided medical surgical ward care, outpatient attention, and other critical care services such as coronary care, endovascular treatments, emergency care, and elective and urgent surgical care of a variety of specialties. Both ICUs were considered Level 1 units according to the classification of the Argentine Society of Intensive Care Medicine and endorsed by Argentinean Health Ministry [107], that is they were able to provide a wide range of therapies according to the most complex patients' needs. Critically ill patients that held social security and/or private health care insurance from all over Argentina were referred to these units. Both had residency medical programs and some in-service training activities for nurses. A Medical Director and a Nurse Unit Manager were on charge of the units. In terms of staffing the standard nurse/patient ratio was one nurse to two patients as stated by the national regulation [107]. The units organized the staff in five nursing shifts; morning (7am – 2pm), afternoon (2pm – 9pm), night shifts (9pm – 7am) and weekend and holidays (7am-9pm). Both units had policies for patient's family presence, infection control and other standard interventions of intensive care.

Twelve intensive care nurses, with more than one year of experience from two private ICUs of Ciudad de Buenos Aires were invited to participate in the study. Participants were selected purposively by the researcher, based on suggestions of the nurse unit manager, physicians, and the previous contact with the participants during the initial time in the field. All participants were registered/professional nurses (RN). There were seven males, five females. There were five who held RN qualifications, with the remaining seven had both RN and BN qualifications. One participant had qualifications in anesthesia and another in education and midwifery. Participants were on range 26-53 year old and had on range 1-20 years of experience in intensive care. Participants had been working for a range of 1-19 years in the studied settings. Seven worked on afternoon shift, three on weekend and holidays, and two at night.

DATA COLLECTION

Four data collection strategies were used in the present study: participant observation, an investigator reflection, formal and short focused interviews [106]. The participant – observer roles is made up of two components, participation and observation [95]. Between the roles there is a variation [108]; the continuum is defined by non-participative, passive, moderate, active, and complete participation [98]. In this ethnography I was a moderate participant observer. Additionally, the participant observer can collect data in a covert or overt fashion [Gold refered by 109]; although being covert means waiving true informed consent, which must have some ethical justification [109]. The extent to which it is possible for the researcher to become a participant depends on the nature of the project. [95] In this current study, the researcher was overt in her data collection.

Participant observation means the role of the researcher is known by participants and the whole community [109]. Two aims guided observation; to be involved in activities appropriate to the situation; and to witness 'activities, people, and physical aspects of the situation' [98]. Participation was undertaken by being involved in staff rounds and daily common activities, including meals and breaks. Efforts were made, repeatedly, to clarify my role when asked to help with a given nursing duty. The fact that I was not a staff member of the institution helped, since according to a local regulation, practitioners are not allow to intervene if there is no formal institutional liaison. Observation of the participant was made by being next to the participant when they performed bedside and non-bedside activities. When patients and families were involved, I situated myself at a reasonable distance to avoid disturbing the provision of care.

An observation tool was developed in order to organize bedside and non-bedside observations data (Appendix 2). The aim of the observation tool was to record both objective observations and subjective data [98]. One hundred and nine hours of observation were undertaken during day and night shifts, week and weekend days; 9 hour average per participant (range 6-10). Observation notes were recorded, in English,

in situ to capture the most vivid objective action while still clear in memory [109]; concrete descriptors, as precise as possible were used [110]. An observation schedule was organized (Appendix 3).

Interviews were undertaken as a friendly conversation, trying to assist the informants [111] to share their perceptions. The literature describes a range of interviews, from unstructured to structured; the first one has no predetermined questions, while the last one have standardised questions. Semi-structured interview, based on an interview guide, is in between this range [102]. Semi-structured interviews were used in this study. Interviews were scheduled in the same setting in a private environment. A written guide (Appendix 4) was used in order to collect similar type of data from all participants [102]. Prompts and requests (Appendix 4) for additional explanation were used to gain more understanding [111]. Additionally, short impromptu interviews were performed during the participant observations to clarify some of the observation and were usually comprised of short questions.

The interviews were accomplished in a friendly environment and the conversation was in Spanish. It started with a greeting and acknowledged, and trivial comment was used to break the formality. The fact that the interviewees could stop the interview at their discretion was clarified. Participants' permission to record the interview was requested again; even though it had been previously given in writing. During the course of the dialogue, attempts were made to capture participants' personal point of view, their interpretation, personal opinion, and insights about the questions. That is, their constructions were elucidated. Interviews took 20 minutes average (range 17-29). Interviews were audiorecorded and transcribed by the researcher (Example of transcription Appendix 5). Recording was used for preserving the exact words of the participants, as well as the questions [102]. The audiotapes were then repetitively listened to while the transcripts were read to ensure the accuracy of the transcription process.

A reflective journal was the last data collection strategy (An example is in Appendix 6). Also known as reflective/personal diary [109], the journal collected my thoughts about going into the field, being there as well as to reflect how my personal background may affect the way the data was collected. Reflexion helped to figure out the level of

detachment and involvement with the participants, as well as to plan future clarification of insights. It was also an opportunity to record high inference subjective field notes [110] and to remind myself about the aims and focus of the research.

ENTERING THE FIELD

Entry to the field was gained by first approaching the ICU Medical Director, the Nurse Unit Managers and the Head of Nursing Department of the hospitals. After gaining their approval, Ethical Approval was requested and granted. Appendix 7 shows the letters addressed and approval granted. Entering the field requires natives to 'open the doors'. The proposed setting was familiar because of my intensive care background. But I had no relationship of any kind with the nurses I was recruiting to the study. Managers suggested I wore a white workcoat, with the university identification, so everybody knew I was not part of the staff. A total of 23 hours over two weeks was the period of exploratory participant observation; it helped to obtain a big picture of the units [106], and to introduce myself and answer questions about my role.

Even though my critical care background helped me to understand the intensive care environment; gaining participant's confidence was not that easy [106]. As an outsider, there was a process I had to go through. Appendix 8 shows examples of field notes. There were many explanations I had to provide before gaining staff confidence, as I stated in the field note:

> 'I felt as an outsider I was examined ... I was asked where I came from, what I was doing, what was the research about, where my family came from, how I did to do research, where I was working, what did I do for a living, where I work in the past, etc.'
>
> (Entering the field note)

After a while, explaining again and again, answering the questions many times, I was invited to share some '*mates*'. After that invitation I felt I was accepted. In my culture *mates* are a kind of tea; it is shared within a friendly environment, it is like a social

ceremony you share with the close ones. After that '*mates*' I felt I had sorted out the first step, as I stated in another field note:

> 'After many introductions and explanations …. I was invited to drink some mates, mates are shared in the most intimate moments between friends. I feel I can do this.'

> (Entering the field note)

Because of my intensive care background, I had to make conscious efforts to answer various questions participants asked me - critically thinking the best words - without providing too much information about the study to avoid biasing their future answers. During this period I concentrated on listening people, to learn the routines, to identify the people's roles in the group, permanent and visiting staff [106].

RESEARCHER AS INSTRUMENT

The way the people move, interact, use the space in a particular setting are all constructed [109]. So, the introduction of a foreigner, the researcher, may influence the setting. But, to what extent can the setting and behavior be influenced? On one side, Borbasi et al. [112] states that 'it is as if there were one reality to capture, even if it is recognized that reality is influenced by the researcher and vice versa'; whilst Mulhall [109] states that once the initial stages have passed, most professionals are too busy to change the behavior that is radically different to normal [109]. The researcher performs a dual role, insider and outsider, simultaneously [98]. In doing this exercise the researcher cannot separate his/her thoughts and perspectives [108].

I am an intensive care nurse with more than 15 years of experience. I practiced as a clinician, educator, and taught critical care at university level. The intensive care environment, the language, the procedures, the complex technology were familiar to me. The researcher position was particularly challenging. I made conscious effort to detach myself as the ICU nurse from me the researcher. In fact, this was a balance, whereby my ICU experienced helped me make sense of what I, the researcher observed. Appleton [97] states the field can also influence the researcher and it is also important to

recognize and acknowledge that gut feelings as an inquirer. While intensive care background helped to 'slot into the social setting, there is still a problem about the degree of emphasis to be placed on observation as opposed to participation' [112]. Nevertheless, this understanding helped to gain sufficient rapport with participants to collect significant data; that means an important level of involvement, but definitely was not becoming a native [112]. In addition, meetings with my supervisors helped to reflect on the course of the field work and to manage the roles in the continuum insider-outsider.

DATA ANALYSIS

The aim of data analysis is to 'uncover the system of cultural meaning that people use' [111]. de Laine states the challenge for ethnographers is to reduce data into categories and concepts and develop and framework for communicating central ideas [95]. Thematic analysis was undertaking with all data [95, 106, 113]. The following steps were followed: familiarizing with the data, generating initial codes, combining codes into categories, searching for themes across categories, reviewing themes, defining and naming themes and producing report [114]. Transcribing, reading and rereading of the interviews allowed the researcher to become immersed in the data. Next, initial codes were identified and these codes were bundled into larger categories. Transcripts were annotated with different colors to reflect various categories, and these categories were given names. Once labels and descriptions of each category were completed, they were examined to identify relationships between categories, and these relationships were preliminarily labeled as themes. These preliminary themes were then reviewed and refined. Then themes were interpreted and abstracted. On further analysis, some were not actually themes, and others were re-bundled. Theme names captured the essence of what the theme was about. Finally quotes were carefully selected to represent the themes and categories for reporting [114, 115]. Coding and categorizing were performed first within individual interview and observations and then across all the interviews and observations. It was only after the within and across transcript analysis was completed, that the preliminary themes were identified.

Spradley [111] considers the ethnographer as a translator who has a dual task. On one hand; he says, 'you hope to understand (…) you must make their symbols and meanings your own'. The second duty is the 'ethnographic translation of the cultural meaning you discovered'. To do that, he emphasis, it is required an 'intimate knowledge of the two cultures' [111]. The current study was undertaking in a Spanish speaking culture. Data collection was undertaken in Spanish and in English. During the analysis, codes, categories and themes were identified in English, but were permanently linked to the original quote in Spanish. The whole analytic process required constant reading and rereading of the transcripts, observations and field notes. As the thesis was written in English, various English literature were used to ensure the appropriate words were chosen to label the categories and themes and also to corroborate the best meaning was given in English. Interviews were listened again and again for verification of the context in which a particular concept was born. Word by word was carefully selected. Every meaning given and the whole process of analysis was supervised by an experienced English speaking researcher. Examples of coding and categorizing are show in Appendix 9.

TRUSTWORTHINESS

While there is an agreement about producing high quality qualitative research, there is also an unresolved issue about the terminology and the strategies to achieve that aim [116]. The debate is based on two opposed points of view regarding the use of the terms validity from the quantitative paradigm and trustworthiness from the qualitative. One side of the discussion, proposes the terminology should be the same as the quantitative paradigm, arguing the contrary undermines qualitative research [117]. The second proposes a different terminology and strategies [93] claiming that different philosophical perspectives are communicated by the qualitative language [118]. Guba and Lincoln [93] trustworthiness criteria were adopted for this study as it is generally accepted amongst qualitative researchers [97]. Trustworthiness criteria encompasses credibility, dependability, confirmability, transferability; which represent the parallel of the positivist criteria of internal validity, reliability, objectivity, and external validity respectively [93]. The application of ach criterion to the current research is described next.

Credibility refers to the confidence in the truth of the data and the interpretation the researcher does [94, 119]; it stresses the question of credible description from the participants' perspective [118]. To accomplish this principle, the data collection protocol and analytic plan were carefully developed. During the field work, onsite vivid and objective observation notes were taken [109, 110]. Interviews were audiotaped [102] not only to focus in the interview dialogue and to help participant's rapport but also to preserve the original data. The clues emerged during the reflective period were then confirmed in future interviews with the same participant or a different participant. Prolonged engagement and persistent observation is important to gain credibility in constructivist inquiry [116]. Observations included the broaden shifts in the studied settings in order to capture as many relevant situations as possible to achieve the study aims. Data analyses was undertaken based on an informed process [114]; and under close supervision of an experience researcher to ensure the interpretations reflect as accurate as possible the views of the participants.

Dependability, is the second trustworthy criterion [93]. It is achieved by auditing and documenting the research process [118]. Besides supervised planning, meetings with supervisors were scheduled as a way of auditing the fieldwork process. Interview and observation guides were used. The reflective journal helped self-auditing as well as to align the analysis to the research aims. A data analysis plan was developed and followed, documenting analytic decisions using memos. Supervision meetings assisted to identify and refine the themes emerging from the analysis. Analytic decisions were made after extended dialogue and reflection for weighting up each theme and category individually. The weighting process was undertaken with each interview and observation individually and then across the interviews and observations.

Confirmability is related to the level of certainty or congruence between the interpretation and the data; it means the interpretation hasn't been biased by the researcher [116, 118]. Thematically analysis was undertaken under closed supervision not only to capture the most representative participant views [110] but also as a way of auditing the interpretation. Discussions also helped to understand components from the perspective of participants 'emic perspective' and separated them from the researcher interpretation 'etic perspective'[105].

Transferability is related to the relevance of the knowledge acquired in one context to another; certain concepts can be transferred to similar situation [102]. A thick description of the findings is necessary for others judge the potential transfer as a possibility [116]. Efforts were made to provide a robust description of the findings and representative quotes. Similarities and differences between the findings and previous research were explored (as described in the discussion Chapter).

Finally, authenticity, the last Guba and Lincoln criterion refers to 'the extent to which the researchers fairly and faithfully show a range of realities' [91]. To reflect the variety of intensive care practices, a purposive sample was carefully chosen [110]. Observation and interviews were stopped when no significant new events emerged. The auditing process exercised during the analysis previously described also helped the attempts to show the more accurate interpretation of participant's perceptions. Appendix 10 shows memos of the analysis period. Thus a number of steps were taken to try to ensure the trustworthiness of data analysis.

ETHICAL CONSIDERATIONS

When humans are involved in studies as participants, care must be taken to ensure their rights are protected [116]. The Declaration of Helsinki described ethical principles to protect human subjects, human material and data [120]. International [121] and national bodies [122] also mandate similar principles to protect humans wellbeing and rights. The International Council of Nurses [123] also stresses that nurses should respect human rights, including cultural rights and dignity. The methodology of this study implied the intrusion in a particular setting, the observation of participants and the collection of potentially sensitive information. This section presents the ethical issues related to this study and the strategies used to protect participants' rights.

After the general approach to facility managers, ethical approval was requested to the Ethical Committee [120] and Teaching and Research Department of the settings [122]. The protocol was scrutinized and approved by the institutional boards. Previously, the

proposal had been revised by the Universidad de San Andrés considering its appropriateness.

Three principles, respect for human dignity, beneficence and justice, for conducting studies with humans were stated by the USA National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research [124], expressed in the Belmont's Report. The application of these principles to this study is noted next.

Respect for human dignity involves the right of the participant to self-determination and full disclosure. Self-determination means the person can chose to participate based on a free decision without coercion. Written informed consent (Appendix 11) was requested after an explanation of the study steps in order to assure disclosure. Despite this written consent, verbal consent was sought prior to undertaking each observation and interview. In addition, participants were told they could stop the observation and interview at their discretion.

Beneficence is an ethical principle that mandates researchers to minimize harm and maximize benefits [124]. To respect this principle, participants were told about the level of the researcher participation while observing and interviewing. Interviews and observations were scheduled according to participant preference and times.

Justice is the last principle of Belmont's Report. It means the person has the right to a fair treatment and the right to privacy. Nurses were informed that non participation had no effect on their labor status or work position. Nurses were equally treated even when they decline to participate [116]. Privacy was ensured by providing an isolated environment for interviews. Participant data was also coded following the National Regulation regarding data protection to guarantee anonymity [125]. Finally, the data was stored under locked cabinets. Computers used for treating the data are protected by password only known by the researcher. The printed documents and drafts related to the study will be destroyed following the recommendations of the Australian Ethics Guidelines [126].

LIMITATIONS

There are several limitations to this study that must be acknowledged. First, this qualitative study of two private ICUs in Buenos Aires cannot be generalized to other ICUs but it does provide a beginning understanding of the most common intensive care nursing practices in a particular Argentinian setting. However, this study may provide conceptual understanding of ICU nursing that is applicable to similar settings across Argentina. The studied units mirror others in terms of the equipment, nurse patient ratio, and models of care.

Second, my background in intensive care might have influenced the dual role as researcher insider/outsider and the extent on which both roles were exercised. In order to diminish this potential bias, several strategies were used. Carefully, supervised planning of the research and a data collection protocol were undertaken. Significant time was spent in fieldwork to ensure a robust collected data. A clearly documented process for data analysis was used, and was overseen by experienced supervisors.

Third, the study was undertaken in a Spanish speaking setting. Field notes were taken in English and Spanish. At the end of every observation day, while memory was vivid, observation notes were reviewed, and additional notes were added. Finally, findings are presented in English. Translation of quotes may blur the presentation of actual meanings as perceived by natives. To overcome this difficulty, quotes in the original language were preserved. Representative quotes were translated for reporting. During the translation process word by word in English was carefully selected to represent as accurately as possible the original meaning. Supervision meetings and literature searches were also used to discuss the appropriateness of English words, aiming to reduce the meaning gap the languages put in place.

SUMMARY

This ethnographic study of ICU nursing practice was underpinned by constructivism. Constructivism assumptions are based on the idea that reality 'is considered an inter-subjective world of cultural objects, meanings and social institutions derived as a

consequence of social interaction' [95]. Twelve critical care nurses, from two private ICUs of Ciudad de Buenos Aires were invited to participate in the study. Both ICUs were considered Level 1 units according to the classification of the Argentine Society of Intensive Care Medicine and the Argentinean Health Ministry [107]. Four data collection strategies were used: participant observation, a reflective journal, and both formal and short focused interviews [106]. Participant observation means the role of the researcher is known by participants and the whole community [109].

Entry to the field was gained after ethical approval was granted. Gaining participant's confidence was not easy [106]. The researcher performed a dual role, both an insider and outsider, simultaneously [98]. As an outsider, there was a process I had to go through to be accepted by the participants. As an insider, being an intensive care nurse for many years challenged my role as a researcher. I made conscious effort for looking for permanently a balance between insider/outsider roles.

Thematic analysis was undertaking in a iterative manner, first coding transcripts and then identifying categories and grouping categories into preliminary themes [95, 106]. Finally quotes were carefully selected that represented the categories and themes [114]. Data analysis was performed first within and then across all the interviews and observations. Guba and Lincoln criteria of credibility, dependability, confirmability, transferability, and authenticity, were used to ensure trustworthiness [119]. The findings that emerged from data analysis are presented in the next chapter.

CHAPTER 4

INTENSIVE CARE NURSING PRACTICES IN ARGENTINA

INTRODUCTION

Understanding intensive care nursing practice, which has been studied in Canada, South Africa and Australia, provides a baseline for further defining the scope of practice. It also provides a framework for formal education and in-service training in a particular context. But there is limited knowledge of intensive care nursing practices in the Argentinian context. This understanding is vital, since the culture, education, scope of practice and clinical settings are vastly different from many western countries. A mini-ethnographic study was conducted in two private intensive care units of Ciudad de Buenos Aires in order to identify intensive care nursing practices, more precisely the knowledge, skills and attitudes the nurses have. This evidence will serve to inform the development of curriculum in future university specialization programs, to guide professional development in clinical settings, as well as certification processes. This chapter provides a description of the sample and the main themes and categories that emerged from analysis of interviews and observations.

CORE INTENSIVE CARE PRACTICES

Introduction

Five themes and several contextual factors emerged from the analysis, and are summarized in Table 3. The themes are representative of the core intensive care practice in the studied settings. The way nurses develop competence, the kind of competences they acquired and the level of performance they achieved is presented. Nurses performed according to patient clinical condition and needs. Efforts were made trying to change the course of a disease or complication. Nurses worked collaboratively; to do so, they tried to understand others, to get along with others. A sense of teamwork was

evident; a team that have a goal to change the course of the illness. The intensive care environment specially the technology influenced the way nurses approached to the patients. While technology facilitated assessment and monitoring, it also set a barrier for connecting with the sick person. Yet, efforts were made to empathize, and individualize care.

Table 3. Overview of the findings

Themes	Categories
Gaining competence	• Developing knowledge and skills • Peer support for learning • Ability to perform nursing duties • Intuitive performance
Assessing, anticipating deterioration and acting	• Assessing • Anticipating deterioration • Acting
Collaborating to provide care	• Teamwork • Effective communication and understanding
Individualizing care	• Tension between routine and individual patient needs • Connecting with the patient
Caring	• Compassion • Empathizing with the patient • Detachment
Contextual factors that influence the practice	• Nurses' personal characteristics • Factors related to the institution • Professional recognition

Several contextual factors that influence practice and training were identified serendipitidely from the data. Because they were not the focus of the research they were not explored in depth. However they are briefly described to help understanding how they influenced practice. Personal characteristics and personal background influenced the way nurses worked. Institution characteristics, more precisely the unit features in terms of staffing and technology also influenced practice either positively or negatively.

Lastly, nurses' work was recognized by patients individually; their contribution and value didn't seem to be acknowledged by institution or society in general. Further studies are necessary to gain a clear picture about these contextual factors.

Themes and categories will be described and illustrated with representative quotes, observation and field notes.

THEME 1. GAINING COMPETENCE

Gaining competence is comprised of the categories developing knowledge and skills, peer support for learning, ability to perform nursing duties, and intuitive performance. Participants interpreted gaining competence as a journey, a dynamic process the nurse went through. This journey provided both a "know what" and a "know how" that nurses tried to gain. The start of the journey was stressful. In order to learn, nurses sought the support of the more experienced practitioners, they were opened to assimilate as explained by an interviewee.

> "Education should be constant, when in doubt do not hesitate to rely on the more experienced peers, to be opened to learn ... and be always looking for support in the more experienced ones .... that results on patient benefit."
>
> (Participant 3)

Skills and knowledge were gained by repetitive exposure to clinical situations. Participants considered it essential to be equipped for acting during emergencies and performing procedures. When nurses performed, the knowledge and skill were embedded on their practice. Nurses identified they could perform independently as stated by an interviewee.

> "I had to give all of me … to learn more …. I came to learn (…) until they were convinced that I could work alone."
>
> (Participant 2)

As nurses gained experience they perceived they were able to use intuition in their practice. At this stage, nurses could master the procedures, manage their time, common

practices of care became natural, and a broader overview of the clinical situation was accomplished as quoted by a participant.

"I think we develop an instinct … sometimes with mates we remember the old times, the old unit, we compare this times with that times, today is easier to take care of the patients than before … so we think why? Why it was too difficult before, we used to work too much with the patients… the disease haven't changed.. . a patient with fever … has fever and a given symptoms; the ventilated patient in shocked haven't changed that much ….. we develop an instinct."

(Participant 6)

Developing knowledge and skills

The category "developing knowledge and skills" is perceived as gaining a "know what" and a "know-how". Participants expressed they need to know the disease and to manage the equipment. To know is recognized and considered fundamental. In the journey of learning, difficulties had to be overcome in order to gain knowledge. Participants talked about the way they acquired their ability to intervene in operative terms, the "know how" of a given intervention. Clinical practice was said stressful until they learned to solve clinical problems. Some personal tools, undergoing courses and studying extra time at home were used but seemed to be insufficient strategies for learning. The notion of continue/lifelong learning also emerged as stated by interviewees.

"I think the role is stressing at the beginning, during the former years…. because of lack of knowledge of many things … it may be related to (…) the training periods when at school (…) the role …. at the beginning is having knowledge of the disease … you have to know how to manage all the equipment I would say, I think it is essential in the intensive care."

(Participant 1)

"There were difficult moments for me … the ventilated patient. I did draws of ventilators and Swan Ganz catheter, I memorized at home … this goes in this

way or that way (…) I felt I was missing something, I felt it was not enough. I said I'll take courses… I'll take courses…. Anyway, you take the courses …. then you implement it …. it is the same … something is still missing … sometimes learning is never ending."

(Participant 2)

In the learning process, learners were taking information from peers and other practitioners. Other practitioners were a kind of source for learning. The knowledge mutated with the feedback the learner received. Knowledge was shared when performing common nursing duties. The learner received recommendation and also taught. The skill, the "know how", was gained in a dynamic exchange process. Statements of interviewees, observations and field notes next.

"Sometimes (…) one is learning … it happened to me …. many times I had to administer Salbutamol by an aerochamber, when I had to show somebody else I used to explain *take the canister, connect to the aerochamber and deliver* … but I saw others who learned by my side that had learned from others (…) that they had to *shake the canister before delivery* ….. well I didn't teach that (…) but others did … I learned too, we are always learning … asking to the respiratory therapist, or the physicians…"

"(…) at bedside with the ventilator ... we don't know sometimes when an alarm is activated ... so ... we make the most of respiratory therapist when present, so he can explains … if tomorrow the same problem comes up … I will know what is going on"

(Participant 3)

Observations supported the need for nurses to develop knowledge and skills.

"The nurse talks to his peer about ventilator mode while they were providing skin care to a ventilated patient."

(Bedside observation)

"The nurse shows a new graduate peer how to infuse insulin."

(Nursing station observation)

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While developing knowledge and skills, participants gain understanding that having knowledge includes having more than technical knowledge. Some participants suggested that the use knowledge had to be tailored to the individual patient needs. It appears that technical knowledge was not enough. Different kinds of knowing made a good nurse as one participant said.

> " In some facilities, or here … one can see colleagues that have a good technique or better management of equipment that are considered the best nurses… sometimes we confuse the knowledge with the technique …. to me is fundamental be updated in other focuses (...) education helps you to prioritize other patient needs of connection, affection, confidence (...) that sometimes are uncared because we are more focused on biological needs."
>
> (Participant 2)

Time management and organization are skills gained with experience. Both are considered essential as described by participants. Participants stated that novice nurses had poor organization skills, even when working with less complex patients. Lack of organization or inability to manage time has and impact not only in the individual performance but also in the team performance. Organization is considered a virtue while the contrary provoke a negative dominoes effect. Participants claimed.

> "When I was young the time was not enough either ….. I remember that I felt useless … I received the handover.. I was appointed the easiest patients…. the time was not enough to do all I had to"
>
> (Participant 6)

> "To me, it is important your ability to organize … who is not organized is chaotic …. It is chaotic to whom you will hand over with, it is a chaos for the physician; it is a chaos for the team… (…) everybody suffers … it is a chain … everybody has his/her capacity or virtues…. some are more evident … (…) he/she has to be quite organized and tidy."
>
> (Participant 7)

A field note supported what was expressed by interviewees.

> A new graduate and young nurse says she is being working in ICU for a year;
> her peers have being working in ICU more than her. She says her peers do all
> quicker than her; she understands that this is because of her lack of experience.
>
> (Field note)

Peer support for learning

Nurses' interpretation of peers support included supporting their peers and to be
supported by their peers. On one side the more experienced nurses were aware about
their peers who were learning. The experienced ones understood the learners, they
taught them, they were aware of the difficulties, particularly the challenges the
technology caused these novice nurses. On the other side, the learners sought to be with
the more experienced peers. They relied on, and they gained confidence working with
senior peers. They saw the more experienced as role models. Both, teachers and learners
had mutual understanding of each other as stated by some participants.

> "The new guys are learning; they have never been in an ICU like this, so
> complex, so equipped, with a monitor that shows you everything."
>
> (Participant 5)

> "I always asked to be in the shift I knew, besides, there was and experienced
> nurse that was there ... all nurses who comes from the ward were taught by
> him... I wanted to work with him."
>
> (Participant 2)

> "You can see the new nurses; you oversee not only your patients but also your
> peers to help them, to support them."
>
> (Participant 8)

Nurses found the opportunity for supporting one another. Breaks were used for that
purposes as identified in a field note.

"It is interesting that a 2 year experienced nurse talk to a new graduate nurse about the course of coronary diseases, cardiac surgery and weaning of ventilator during the tea break time. The new graduated acknowledges that.

(Field note)

Ability to perform nursing duties

Participants said an ability to perform nursing duties was important when procedures were required or emergencies came up. Nurses were aware that some of their colleagues might not have the skill to manipulate simple and complex devices even when the patients were under their care. There were duties that sometimes were performed by physicians or respiratory therapist because nurses had no ability to perform or they chose not doing so as a participant stated.

"Many nurses sometimes don't know …. we handover a list of stuff ….. central lines, intracranial pressure catheter, Swan Ganz catheter (…) nurses set a limit …. they do so far, this belongs to physician …. I don't think it is like that … the more you know the better (...) because there are nurses who don't know how to manage a drainage, block the drainage or open the drainage… they do not touch that … they do not know how to manage 3 way stocks, Swan Ganz catheter or transducers (…)"

(Participant 9)

Some bedside observations supported this interviewee statement.

"The nurse assist a colleague (with other patient) for connecting Swan Ganz catheter, physician indicates him how to connect the cables to the monitor."

(Bedside observation)

[The nurse is caring a ventilated patient] The nurse assesses the airway while changing the patient position; he didn't stop nutrition infusion while working

with the patient in supine position. He calls respiratory therapist for suctioning oral secretions.

<p style="text-align:right">(Bedside observation)</p>

There was also recognition that not being able to perform may compromise patients' life. Participants suggested that in order to perform properly, nurses should master the techniques and should be always ready, as one participant said.

"If you are not hundred percent in other health areas I do not know how much it may influence (…) but here if you are not hundred percent (…) it will influence the quality of your work (…) you do not know how to insert a peripheral IV line, you don't know how to perform auscultation, you don't know how to take blood pressure, you don't perform the right technique … a pre surgical bath, a tube insertion, even the way to put in order the medication or disposables for an endotracheal intubation ….. you don't know how to set a ventilator (…) ….mm … respiratory therapist is not always there (…) it happened to me in other hospital that physician couldn't arrive because he was working on an emergency (...) you are a kind of health boy scout ….. it may not be necessary …. but when is required it is good to know, be aware you know."

<p style="text-align:right">(Participant 4)</p>

Being able and ready to perform was considered significant in all situations according to participants' perspective. The ability to understand a clinical situation, to use this understanding to act makes a reliable nurse, especially during emergencies. This ability is gained with experience as described by two participants.

"A nurse must be capable to act as a nurse when attention is required. Because in an emergency a nurse who does not know what he/she is doing can't be in an emergency …. or if you are watching he/she becomes nervous because he/she is observing a patient who is getting into cardiac arrest and he/she does not know what to do or he/she knows … but can't turn into action … to me skills should be full-length."

<p style="text-align:right">(Participant 8)</p>

"Be quick and clear thinking in the emergencies, you learn as the time goes by (…) there are nurses who do faster, you know who you trust on and who you don't."

(Participant 5)

An observation at bedside also supported this idea.

"The observed nurse was re-admitting a patient derived from operating room: the nurse manages ventilator settings, identifies that catheter lines for inotropes are occluded, he asks for saline solution to flush. Then he connects drainage to collection bags, connect arterial line to invasive pressure monitoring (…) [and so on]"

(Bedside observation)

Intuitive performance

Intuitive performance was an advanced application of skills and knowledge. This way to perform was achieved with experience. Nurses behaved based on an intuitive knowledge and perception. Participants reflected on their practice comparing their current and previous practice. They considered patients responses to disease had not changed that much, but their own performance had developed / improved. Participants expressed they could be in the right moment to act, even when alarms didn't sound. They could be taking a break; they interrupted their break to see the patient just in time, when the patient needed them. Basic duties became natural, a broaden awareness of their peers and medical student activities and the whole unit picture was gained. Representative quotes, observation and field notes are presented.

"There is advanced technology; it makes the work easier …. But… there is an instinct that one develops it may be unconscious …. you can be reading or taking a coffee … suddenly you go to see the patient just on time you had to be bedside… with the patient … even the alarm didn't sound … at the beginning

even the alarm sounded you reacted slowly …. now it looks like you are distracted …. but suddenly you are there … that is due to the time in the unit."

(Participant 6)

"As we gain experience, the field broadens … you see more … when you start you are just capable to focus on medication, what is the medication use for, vital signs, …then with experience … you are skillful…. you have more time to do (…) The more experience you have the more you get advantage of your time ….. at the beginning you take more time for bath care, prepare medication… as the time goes by you do automatically, you gain a broader view of the situation, … you can even have a broader view of the unit though."

(Participant 8)

"The nurse oversees his peers working with a patient with tenacious secretions who needs noninvasive ventilation. His peers fails in suctioning, he assess the patient, suction the patient, installs non-invasive ventilation and calls the physician."

(Bedside observation)

During an emergency with a patient suffering a suffocating hematoma after a thyroid surgery, the nurse on charge identified quickly the bleeding, warn the physician on charge. With his peers quickly organize who will join the team for the emergency, he has also asked other colleagues to overview the other patient on charge. They worked with fluency during the emergency.

(Field note)

In summary the theme describes the nurses understanding of the way they gain their knowledge and skills in order to work in intensive care. It encompasses the categories of developing knowledge and skills, peer support for learning, ability to perform nursing duties, and intuitive performance. The learning process included a variety of strategies nurses developed themselves to learn. Peers played a significant role influencing the learning process. Experience made nurses better able to perform complex interventions. Although not all nurses accomplished this competency, an advanced level of performance was achieved by some nurses.

THEME 2. ASSESSING, ANTICIPATING DETERIORATION AND ACTING

The theme, assessing, anticipating deterioration, and acting was comprised of three categories with the same names. Participants considered it the core of "doing" in intensive care. Participants interpreted the three actions as dynamic and overlapped.

First, assessments helped nurses to identify patient needs. The required nursing care was determined by the patients' clinical condition and their level of dependency. By assessing, nurses identified limitations the illness place on patient autonomy. Second, assessing allowed nurses to anticipate the course of a given clinical problem, identifying early signs of deterioration. The aim of anticipating deterioration was to alter the clinical course of the deterioration for patient benefit. To do so nurses performed collaboratively. Participants stated that not all their peers had this ability to assess and anticipate which they considered essential monitoring. Third, nurses acted not only based on the assessment and anticipation, but also on the standard care expected in intensive care. Participants stated.

> "The alert ... if the cardiac rate decreases you have to know that arterial pressure will go down as well (...) there are many nurses that do not manage ... they do not know what is going on (…) or the essential ... interpreting an electrocardiogram … the minimum … the arrhythmia … to warn … you must start to do something before doctor arrives.. and be ready .... you must anticipate."
>
> (Participant 9)

> "There are nurses who like to work with conscious patients, they have skills to talk to the patient, to listen to the patient; (…) then they need to have skills to manage the ventilator, they have to provide all the care based on that patient condition."
>
> (Participant 12)

Assessing

Assessing was reported by participants as an essential intensive care nursing practice. Participants asserted that the focus of nursing assessment was to identify potential alterations in order to act properly to try to prevent them. To assess, nurses had to be alert. They needed to recognize signs and symptoms, interpret monitoring values and activate in a collaborative manner. Nurse's assessment was performed continuously as a participant said.

"(...) to me the role of the intensive care nurse is central (...) we are 24 hs bedside, we identify all (...) patient alterations in order to communicate in due time to doctors ... and solve them"

(Participant 1)

An observation supported the importance of assessing.

The nurse asks the patient if the he is pain, or cold, looked at the drainage, assesses patient ability to move his arms and legs, and evaluate plantar reflex.

(Bedside observation)

Anticipating deterioration

Participants' narratives suggested anticipating deterioration was performed concurrently with the assessment. It was a practice that focused on the identification of early signs of deterioration of a given clinical problem. Participants stressed that recognition must be done in the precise moment that clinicians can alter the course of deterioration. In order to do so, nurses should think about patient's condition and act in consequence as reported and observed.

"The intensive care environment I think ... it is a place where the patient care must be fine ... I mean to have all the senses in alert ... having in mind that the patient may have a sudden deterioration or he/she may have his/her life at risk … so the care must be precise. You have to know how to recognize the precise

moment the patient starts deterioration (...) no later than that… to assess the parameters indicating deteriorations."

<div align="right">(Participant 3)</div>

The nurse informs the physician on charge about the high respiratory rate and hypotension of the patient, he dialogues with physician as presume pulmonary embolism.

<div align="right">(Bedside observation)</div>

The nurse identifies low heart rate, continue monitoring until a second episode is identified, call the physician and inform the drugs that were being infused.

<div align="right">(Bedside observation)</div>

Acting

Acting, as a result of assessing and anticipating deterioration was perceived a significant practice by participants. Three kinds of performing were identified. First, once the abnormalities were identified, a course of interventions was carried out. Participants emphasised that constant monitoring, identifying priorities and acting effectively according to a changing clinical situation was a vital duty. To do so, it was necessary to have the ability to perform assessment, intervention, and reassessment simultaneously in an escalating and collaborative manner as stated by interviewees and rescued in observation notes.

"Well… we need a great adaptation capacity, one has to adapt to the patient's family, ... to the team, ... to the patient's changes … he/she is ok and suddenly in two minutes is in shock …. you have to permanently adapt to."

<div align="right">(Participant 7)</div>

The nurse is re-admitting a stroke patient with intracranial pressure monitoring from operating room; the nurse assess hypotension, she checks and increases the inotropes infusion, identifies increased intracranial pressure, inform the

physician. She quickly administers sedation and sodium chloride as physician prescribes, while other doctor is opening the intracranial drainage.

<p align="right">(Bedside observation)</p>

The nurse acts with fluency while patient is in an unstable condition, she moves from the simple task of connecting the patient to monitor to managing drugs, administer drugs, interpreting monitoring, performing simultaneously more than one task while observing and warning the doctor about the patient clinical condition.

<p align="right">(Reflective field note)</p>

Second, participants identified two clinical conditions that distinguished the types of actions they undertook. It was clear the difference between the conscious and the unconscious patient in terms of their dependency on nurses or what they need nurses do for them. While unconscious patients have extensive need for nursing care, including basic needs; conscious patients need to interact with and to be listened by nurses. The level of support provided to patients in both clinical conditions is based onto the assessment of patient's status and needs as demonstrated by quotes and observation notes.

> "To me there are two kinds of patients.... the ventilated patient who depends hundred per cent on the nurse ... you have to provide all.... (...) the care of the whole body, the whole human.... and on the other side is the conscious patient who requires other attention, we accompany, we talk, and we are at the bedside….. but .. both are different kinds of care provision."

<p align="right">(Participant 2)</p>

> The nurse assesses patient conscious status, suction airway, initiates morphine infusion (…), provides body and ostomy care, change sheets, change dressing and connect monitoring when finished.

<p align="right">(Bedside observation)</p>

Third, acting also meant "doing" essential care in daily bases. Interventions such as oral care, skin care, infection prevention, control of patient-ventilator synchrony, among

others, are duties identified as common practices, as described by participants and observed.

> "What we do with ventilated patients (...), I control vital signs, I check all IV [intravenous] lines patency, I check if they are properly signed, I check sings of infection of catheter insertion sites, (...) patient position, feeding, prescription; in order to prevent complications I do oral care, I change endotracheal tube fixation, I check (…) patient ventilator synchrony, In try to prevent pressure sores, I do skin care, (…)
>
> (Participant 2)

> The nurse performs: patient hygiene, skin care, body care, glucose control and antibiotics infusion administers IV [intravenous] medicines, manages IV [intravenous] lines and devices, central lines insertion site healing and do mouth care with chlorhexidine.
>
> (Bedside observation)

To sum up, the described nurses views comprises assessing, anticipating deterioration, and acting categories. Nurses assess patients in order to identify potential complications. The interpretation of patient's clinical condition helps nurses to anticipate deterioration as well as to activate collaborative actions. The aim is to prevent or to interrupt a deleterious clinical course. Nurse's interventions are triggered by patient particular needs. Standard intensive care is also provided. All nursing actions are dynamic and overlapped.

THEME 3. COLLABORATING TO PROVIDE CARE

Collaborating to provide care is a theme comprised by the categories of teamwork and effective communication and understanding. Collaborating was perceived as working in a team. Nurses gained a sense of being part of a group of people that had a common aim. They all acted towards achieving this aim. Besides the sense of belonging to a team, there was an identification of working with a particular practitioner, a sense of "working with other". The "other" was recognized by the nurse as a part of the team,

and they made decisions to support one another. In order to achieve this kind of performance, communication and understanding was vital. Team members had to understand and interpret each other to be effective as a team. There was a sense of relief and trust within these relationships as stated by a participant.

"It means everybody goes to the same direction (...) I had to assist to coronary care, (...) a patient was on deterioration, one of my colleagues had to leave at 6 pm, and the other had to leave at 7 pm, since the patient was unstable ... one decided to stay (…) we could adapt the patient to the ventilator, we assist the doctor and installed the central line .... then we started inotropes infusion ... the patient was more stable .... then she left (…) we could work as a team… the doctor on charge felt lightened because she could do all with us"

(Participant 2)

A variation in the team members' interaction was identified. Some nurses' personal characteristics and discipline appeared to influence the extent of variation. Medical round was an occasion when variation was evident as noted in a field note.

Doctors are discussing about a patient clinical situation. But the nurse is not included in the discussion and he [the nurse] does not show interest.

(Field note)

Teamwork

The category teamwork emerged when participants talked about working in a group that had an aim. Nurses, doctors, aid staff, and allied health care practitioners were part of the team. The teamwork effort was considered vital during emergencies and when the patient was deteriorating. Team members made decisions to support each other and to join their efforts for the patient. Nurses contributed to the team, they tried to get along with one another, and they felt responsible for contributing the team. Efforts for getting along with all were also made as quoted next.

"We want to get along with .... the physicians, the respiratory therapists, the cleaning staff, peers, in order to all ... even taking out the trash or changing and IV [intravenous] line (...) or giving a pain killer .... the summation of all that stuff ... makes the patient feel is being given the best … I feel responsible (…) I do not know how to say…. for all."

(Participant 4)

Besides anticipating as a team, the most skilful members lead others as a participant said.

"For providing a good care first to be on charge of two patients and a group of people for supporting each other; observing and anticipating situations (...) as a team, preventing the situation leads towards a more aggressive outcome…. preventing before (…) the more experienced peers advices us …. do this ... do that ..... a team based care ..... to try to be there."

(Participant 2)

Teamwork also meant to work collaboratively. Collaborative work was identified when nurses expressed they worked with somebody else. There is an "other" that can be a peer or a practitioner of other professional group. For working with others was necessary to have good communication skills. There was a dependency of the "other"; it was not safe for patients the nurse work in isolation participants stated.

"Camaraderie is very important, if you are bathing a patient, if you do alone you get tired, with a fellow you do it faster (...) you have to be a good fellow (...) you are dependent on your peers … you have to patients, one becomes unstable … somebody has to observe the other patient under your care."

(Participant 10)

To work without collaboration was perceived more to be difficult.

"Then he/she has to have good interpersonal relationships…. (...) because the one who do not fit in the group or do get along with others ... because here you

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work with (…) then ... he/she is isolated of the peers and medical group … the work becomes harder."

<div align="right">(Participant 7)</div>

Effective communication and understanding

Effective communication an understanding was viewed as an ingredient essential for teamwork. Effective communication meant the "other" who nurses work with "interpret" what they want to transmit. For interpreting the other it was necessary to understand the other's point of view as well as the aim of a given duty. Participants said, being more emphatic with patients and their families helped all health care providers involved in the scenario to get along. At times this was difficult to achieve; communication had its ups and downs as demonstrated by interviewee quotes.

"I sometimes I see everybody ... on their own ... I try that the ones who are next to me gain understanding about what I mean ... about what I want to say … that is.. in this way or that way ... I mean ..that is my way to see ... as if everybody were thinking the same"

<div align="right">(Participant 4)</div>

Communication with other disciplines, more precisely with physicians had significant variation. Occasionally nurses participated in medical rounds providing useful information. Yet, sometimes they didn't participate even when the discussion was related to the patients under their care. Medical rounds provided information about the treatment and the course of disease. Participating in medical rounds, nurses gained understanding of patient clinical condition a participant stated.

"They do a medical round before the visiting time.. to see if they have to change the treatment and be ready for the medical report (...) they also tell us about the changes, we make the most to know the patient ... we come on weekends and have no broad information of the patient (...) we get advantage of the medical

round to get the information we need and also see… if we can contribute …
sometimes nurses con contribute.”

<div align="right">(Participant 7)</div>

Personal nursing characteristics might have influenced this variation in practice. An observation and a field note expressed some downs in communication across nursing and medical disciplines.

A new patient was admitted, a Dr [who wanted to communicate the prescription] ask the staff who *is in charge of the patient care?* The observed nurse answers nobody is in charge. A more experienced nurse approached and says I'll see the patient until we decide who will be in charge, tell me what we have to do.

<div align="right">(Bedside observation)</div>

Doctors are in round discussing patient's conditions and treatments, nurses do not participate in the discussion. Doctors are talking about the articles (published in English) they read related to patient clinical condition. Nurses do not approach even when the patients under their care is the focus of the discussion.

<div align="right">(Field note)</div>

To recap, collaborating to provide care is represented by the categories of teamwork and effective communication and understanding. Teamwork means to work with in a group of people with a common aim. In order to achieve this aim, team members work collaboratively. They have a sense of belonging to the team. Effective communication and understanding plays a conclusive role in the way the team interacts. Variation in communication might be influenced by some personal characteristics of the members. Then, teamwork performance may have its ups and downs.

THEME 4. INDIVIDUALIZING CARE

The fourth theme, individualizing care includes the categories of tension between routine and individual patient needs and connecting with the patient. Individualizing care emerged when participants expressed their difficulties for meeting individual

patient needs in intensive care. Technology appeared to play a negative role and became a main barrier for connecting with the patient. Nurses identified their difficulty and tried to overcome it. Participants recognized that patients were different; at times they felt like connecting more with one than another. They tried to understand patient personal situation, to see the person as a whole as quoted by a participant.

> "I try to ... not to see if the person is beauty or if she/he has a plain face, younger or older, naked or not (…) I try to treat him/her as a whole, as a person who is hospitalized and sick."

> (Participant 4)

Even when the patient was unconscious, a participant tried to communicate with, as observed.

> "The nurse talks to an unconscious ventilated patient who opens her eyes."

> (Bedside observation)

Tension between routine and individual patient needs

Tension between routine and individual patient needs reflected a conflict between these two things. Nurses made an effort to meet individual patient needs. They knew that at times they turned their focus to the equipment rather than the patient. Education could help to prevent this behaviour a participant said. At times, nurses appeared to be more focus on other tasks than in the patient as an individual that has needs to meet. They were not able to recognize/assess the need. Some participants explained:

> "In a given moment you pay more attention to the monitor than the patient… education helps (...) not fall in routine (...) you know ... you do this … that (…) this is not good for nurses nor the patient (…) at the end you finalize considering the patient as an object, not a person that needs your care."

> (Participant 1)

Participants showed their insights about how they treated, or cared for the individual patient needs. Some recognized the uniqueness of the patient stating that not all have the same needs; they made efforts to treat the patient as a whole. They also recognized the person's sickness, and the uniqueness of the patient's world. They tried to meet individual patient's needs as claimed by a participant.

"Not all the patients are the same, sometimes we confuse *"that post surgery of .."* as if all had the same behaviour …every patient is a world, it is a different family, a different person, in that sense I try to see every individual in his/her world."

(Participant 1)

Connecting with the patient

Connecting with the patient was understood as an effort nurses put into the nurse patient relationship. Nurses tried to gain understanding about patients' experience and feelings. There was a recognition that patients were individuals so they needed different kinds of caring. Patients' pain was identified. Representative participant statements and field notes include:

"Actually it happens I would like to see some stuff I can't see (...) the issue in intensive care is that sometimes we focus more on the machines (…) the ventilator, the pump, but we don't see the person, we forget that there is person that has pain, who suffers, who miss, who don't see his/her family … I try to have it mind, it is so hard, because we focus on the technology (…) which is good, but I think we are forgetting the person."

(Participant 11)

A field note support the difficulty nurses have to connect with patients.

When a tracheotomised patient arrives from an abdominal surgery, nurses don't talk to the patient, the patient looks awake. Only a physician talks to the patient. The patient understands what doctor says, they have eye contact.

Participants expressed that there were patients who they connect easier than others; those who they felt more comfortable with.

> "There are patients who with you relate to more than others, that is truth, there are patients who with you have affinity, and you like caring for them more than others, not all the patients are equal."

To summarize the theme individualizing care illustrates the tension between routine practices and meeting personal patient's needs. Technology and some nurses' personal characteristics appeared to play important roles in meeting those patient individual needs. Nurses were aware they had trouble to individualize care. Even though they did not feel like getting along with all the patients, they made efforts to connect with the person; they recognized that every person was different and they tried to meet patients' particular needs.

THEME 5. CARING

Caring was a theme comprised by the categories of compassion, empathising with the patient and detachment. Participants' perspective of caring meant the recognition of the patient as *other,* different of the *self,* as an individual person who was experiencing an illness. The patient's pain and sorrow was identified and approached compassionately.

> "What I do ... how I would like to be treated (...) to make the patient feel comfortable, he/she may feel embarrassment ... the age, the situation they live."

Nurses identified patient misfortune. They wished to give the patient the best, because they would like to receive the best, if they were patients. This made them reflect on the way they performed as expressed by a participant.

"I think if we put in the place of that person (...) I often think that is how I like to be treated (...) if everybody realized why they studied, why they are in health to do this specialty and if they were in the place of the patient ... I think without doubts that they would give their best (…)"

<div align="right">(Participant 4)</div>

Nurses considered meeting patient needs a complex intervention to perform. They seemed to see caring as a continuum; on the one end, commitment, compassion and empathy could be located. On the other end, detachment non-compassionate actions, non-empathic behaviours and detachment could be placed. Even when nurses tried to empathise with the patient, detachment was evident as quoted by an interviewee.

"I try to ... that not be touched ... if he is a young person ... if he is very sick, or if he has not many chances to live…. I try to make them feel I give the best."

<div align="right">(Participant 4)</div>

Compassion

Participants understanding of compassion involved nurses' sympathetic pity for patients and families suffering and distress provoked by illness. Nurses' sensibility allowed them to help the patient and their families to cope with the situation of illness. Interventions for helping patient and family comprised providing essential care, coaching the patient, improving patient personal image and giving information about procedures to be performed. Nurses tried to be more patient with the patients although they recognized this was not easy for them. Consequently, non-compassionate nursing behaviours, including negative emotions, were also identified. Supporting quotes, observation notes are presented as follows.

"Sometimes you have a coronary care patients (...), they have special needs, their families are distressed, you have to understand, you have to hold them (...) the patient is also distressed (...) I do not know how to explain, you have to be more patient, it is not easy the nursing work."

<div align="right">(Participant 8)</div>

"Here in that bed there was a tracheotomised patient (...) she didn't feel like doing anything for herself (...) I used to brush her, I encouraged her to sit, she saw herself in a little mirror … it gave her a lift."

(Participant 3)

The nurses identifies patient call [patient called twice], the nurse makes a negative comment regarding patient calls. The nurse was annoyed.

(Field note)

Empathizing with the patient

Empathy was viewed as an understanding of patient situation, and an ability to share patients' feelings. Empathy was understood as recognition of the individual, the person. Nurses expressed their empathy by imagining themselves in the patient situation as a participant claimed.

"(...) It is not a factory, it is not doing screws, it is not a peace of brass, it is a person….. empathy is very important (...) you may likely to be there one day, that day you would like to be treated in a given way."

(Participant 6)

Nurses' personal experiences helped them to be more emphatic, to gain a shared feeling of others suffering, to be more human another interviewee said.

"I had a crash car accident, that made me more human, in a given time we became automatic, in nursing and here ... I had my daughter hospitalized (...) that makes you more human with the patient, with the family, I think that we all should be on the other side to know what it feels, what is suffering, it is a hard experience."

(Participant 7)

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Nurses used the sense of humour, inclusion of family and cared of patient's privacy as emphatic interventions as quoted and observed.

"If it is for making him/herself comfortable I don't mind to work with family, if I have to undress the patient or to perform a procedure (...) I ask the family to leave."

(Participant 8)

A patient relative is giving manicure to the patient, the nurse says "*you are doing well, please continue with my hands*"… they all laughed.

(Bedside observation)

Non-empathic nursing behaviours also emerged as an automatic action setting a rift in between. Patient personal needs were missed as registered in a field note.

Another nurse with the doctor prepared a patient who needs to be operated; neither the nurse nor doctor talks to the patient. Patient looks with fear and in concern; nobody explains anything to the patient.

(Field note)

Detachment

Contrary to the categories of compassion and empathising with the patient, detachment was expressed by participants as a desire of avoiding a connection with the patient. The lack of connection was depicted by performing automatically, avoiding listening and talking to the patient. Communication and recognition of the patient individuality and intimacy was missing. Field notes and a participant quotes representing detachment next.

"Sometimes closed wards/units [talking about the intensive care with scheduled visit times] dehumanizes, may be one is looking for that, there might be a reason for me to look for most complex patients …. I try to no to get in touch (...) do you understand? Intensive care practitioners have a little of that .... he/she comes

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... do this… do that .... invading, monitoring ... but we try to avoid involvement with the patient."

A tracheotomised, ventilated and conscious patient was performed a transesophageal echocardiogram under anaesthesia, the nurse approached to the patient, administered sedation but never explain the procedure to the patient. Doctors did.

(Field note)

Summarising, the caring theme was comprised of the categories of compassion, empathising with the patient and detachment, Participants understood the patients needed different kinds of approaches to caring. Caring practices were influenced by technology, nurse's personal experience and the level of connection or affinity with the patient. Understanding and sharing patient emotions was seemed to be a compassionate and emphatic care intervention. Avoiding communication with the patient and performing mechanically could be interpreted as non-compassionate, non-emphatic and non-caring approaches.

THEME 6. CONTEXTUAL FACTORS THAT INFLUENCE THE PRACTICE

Other serendipity findings, related to *nurses' personal characteristics*, the *institution* and the *professional recognition* were identified as influencing ICU nursing practice; but they were not the essence of that practice. These findings are presented to illustrate how nursing practice is not independent of its context. Because of the focus of this study was on the core of ICU nursing practice, the contextual factors emerged were not explored explicitly. Further studies may be necessary to gain a clear picture around the issue.

Nurses' personal characteristics

Factors related to nurse's personal characteristic such as being a good and honest person, and being tired and fatigued influenced the provision of care. Participants

expressed honesty meant to do the right thing for the patient, doing the best they could. They gained a sense of wellbeing when they did the right thing as a participant said.

> "I care for my patient the best as I can (...) I get home and I can sleep easily (...) at work you must be honest... to be honest means to do what is right to do (...) to do the right thing for the patient."
>
> (Participant 6)

Moderation in nurses' expectations considering all possible patient outcomes was recommended according to a participant opinion.

> "The intensive care is a very strong atmosphere, in that sense … the patient is not always discharged (...) so you should certainly have a balanced mind…. to think it is a critical place it can happen the good or the contrary."
>
> (Participant 3)

Another participant stressed that personal and professional qualities were equally significant.

> "You can't be better professional than a person ... I think we grow (...) the person and the professional is one (…)"
>
> (Participant 8)

Some personal characteristics related to social background influenced nursing practice. Most of the participants said they worked two full time jobs or reported being in a full time training program. Nurses expressed they had struggled to perform when being tired and fatigued. Constant tiredness and fatigue influenced their well-being, caused them distress and made them difficult to have an enjoyable life. A participant's quote, observation and field notes are presented.

> "How I would say, when you work at night and you also come to work in the afternoon... you come tired, you feel drowsy, your mood changes, I didn't like that .. do you understand? … having to fight against tiredness and work at the same time."

"The nurse talks about his another job; he is under a residency program in another hospital during the week, he works all the week full time; he also works on weekends in this unit."

(Nursing station observation)

"During the tea time nurses share some personal experiences, their difficulties due to the double job ... they try to articulate their personal and professional life seeking more time to enjoy their lives."

(Field note)

The excessive working hour made them struggle to devote some time for other activities such as professional development. Nurses tried to organize their time between work and rest as expressed by an interviewee.

"Then .... I didn't do courses, I do not attend to conferences; because the little time I have ... I want to rest."

(Participant 6)

Factors related to the institution

Factors related to the institution that influence the practice comprised the environment for clinical learning and adequate equipment and staffing. The intensive care unit was seen as an appropriate environment for learning. Nurses expressed they lived challenging situations every day. They learned by being challenged in practice. Nurses perceived they could achieve professional development in intensive care. They expressed their wish "to belong" to intensive care, as was expressed by participants.

"It is an environment within you grow permanently (...) I think every day I live new experiences, even the learned and skilled person is surprised."

(Participant 4)

"I was working in the general ward… until finally was transferred to ICU; this is the unit where I learned most."

(Participant 2)

Participants stated that having the appropriate equipment and having a proper nurse/patient ratio helped them to provide a good care. Technology and a supportive team facilitated the work a participant reported.

"Well here we have an adequate nurse/patient ratio, one nurse two patients; the equipment is also important, it makes the work easier (...) for providing a good care first two patients and then a group of supportive people."

(Participant 2)

Nurses remembered their past, when they had to figure it out how to get some equipment for basic monitoring for potential admissions. Nurses described how shortages of equipment made them creative in procurement what they needed. Visiting their peers was an occasion to explore the resources they may potentially use in the future. They learned how to solve it, as reported by an interviewee.

"I remember a peer who has given to me a good advice (...) you have your patients here, you have to look for ... when you go to other units, there used to be 3 intensive areas, … we always needed cuff pressure, suction containers, pulse oximetry devices, … when you go to other places you have to see what they have … you never know when you will need it. Thus every time I went to greet my fellows I knew where the monitor or pulse oximetry was … I keep this advice with me since."

(Participant 2)

Participant reported good communication with their managers played an important role in the provision of essential supplies for their work, as claimed by an interviewee.

"To have a good boss, he/she make [sure] you are provided all you need, so you don't have to run looking for something (...)"

(Participant 9)

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Professional recognition

With respects to professional recognition, rewarding work and insufficient wages arose as important issues for the nurses. They felt rewarded when a critically ill person recovered and come back to visit them. They felt acknowledged and recognized by the patient.

> "The most satisfying is that a very sick patient recovered and ... then ….. come back to visit us."
>
> (Participant 5)

Nurses' expressed that turnover influenced their practice. They had to train the new comers; then, the new comers left the institution for a better wage. Nurses stated a better wage would allow them to hold one work position, and that this would result in a better patient care as exemplified by these participants.

> "It would be vital to have a good wage .... that allow us to have only one job ... we make the most with only one job, we can offer a better quality not only in the technical care but also helping patients and their families to cope."
>
> (Participant 2)

> "The problem we currently have is the nursing turnover, we have to train them, it was not seen before … this turnover .... wages are low ... they go to a place that pays better."
>
> (Participant 5)

Participants stated it was important to be acknowledged in their needs for professional development.

> "It is important for a group in an intensive care to feel supported (...) especially when you have interest in future professional development."
>
> (Participant 1)

During data collection it was observed that patient's family were received by security guards and they were also asked to leave the unit at the end of visiting hours by guards. When asked, nurses said they were not respected by the family. It appeared nurses were not perceived by patient's families as having professional position. For a particular reason (beyond the scope of this study) patients' relatives didn't seem to recognize the nurse's authority. Security guards appeared to be more respected than nurses. A supporting field note and a quote are provided next.

> Patient's family is invited to the unit and asked to leave the unit by the security guard.
>
> (Field note)

> "For us it was a great help, because... the family respects more the security guard... before they said the nurse was bad (...) because they were not allow getting into the unit …. But they came any way. We feel relief today."
>
> (Participant 8)

Some participants may not have perceived themselves as professionals, which may have influenced their professional position within the community. A poor professional perception may result in lack of recognition on behalf of patient's family and the institution. Some, nurses did not behave as professionals an interviewee said.

> "Until we consider and respect ourselves as professionals we will never make the people recognize us as professionals, we should not only be professionals but also we should look like professionals … to see ourselves as professionals. In general terms ... you see nurses, they don't have professional behaviours attitudes."
>
> (Participant 6)

To recap, factors that influence intensive care practice were related to personal characteristics, facility and professional recognition. Being a good an honest person or holding more than one work position influenced positively or negatively the way nurses performed. Adequate equipment and nurse patient ratio was reported influential as well.

Finally, nurses' image is not perceived professional yet. Lack of professional position seemed to make nurses to be in disadvantage at hospital and community level.

SUMMARY

To sum up, 12 interviews and 116 hours of observation were undertaken. Analysis of the data demonstrated two main domains, the core practices of intensive care nurses and contextual factors that influenced this practice. Figure 1 schematically present the five core themes. The context was the sixth theme as identified. These themes are discussed in the next chapter.
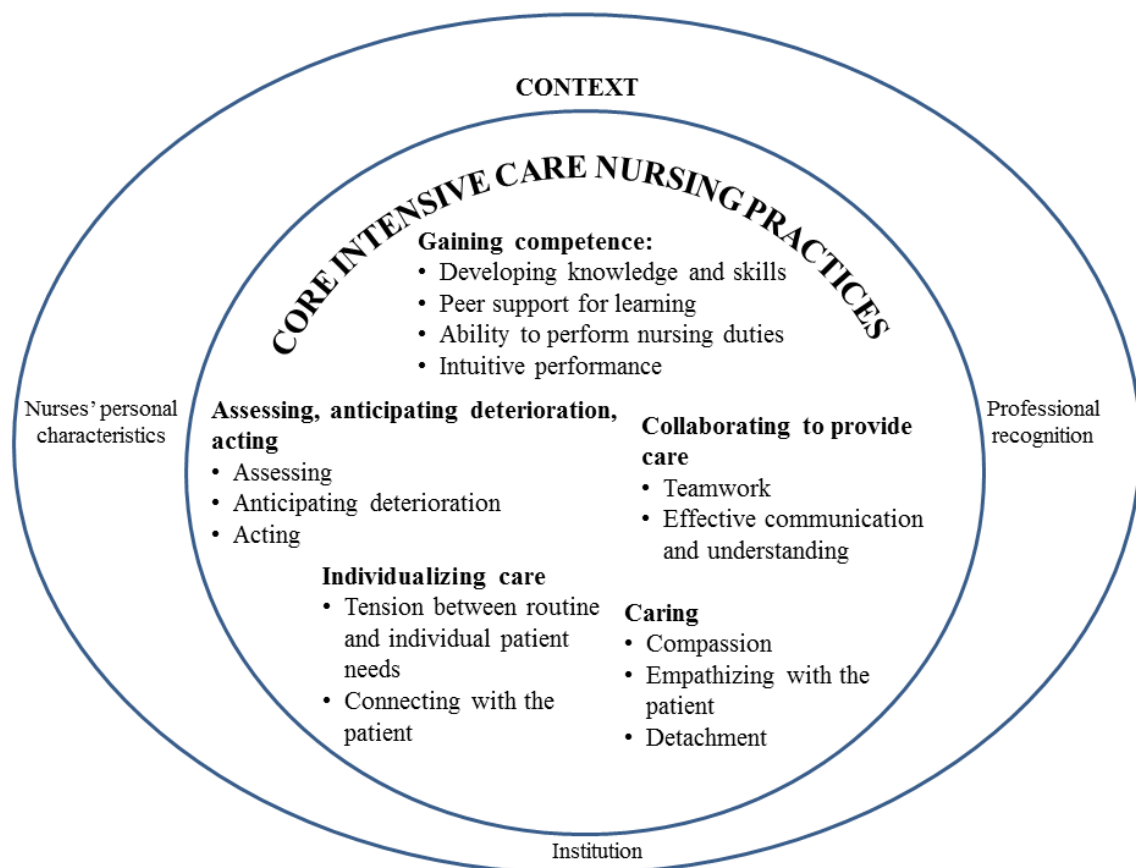
Figure 1. Core and contextual themes.

CHAPTER 5

DISCUSSION

INTRODUCTION

The aim of this study was to describe intensive care nursing practices in two private intensive care units (ICU) in Buenos Aires. More precisely this study sought a better understanding of the knowledge, skills, and attitudes embedded in intensive care nurses' practice. An ethnography was undertaken. Participant observation, interviews and a reflective journal were used to collect data. Thematic data analyses uncovered five themes related to the core intensive care nursing practices and one theme related to the context. This chapter discusses the core study findings, acknowledges the limitations of the research, highlights the implications for intensive care practice and education and suggests future research.

SAMPLE

Twelve nurses were invited to participate in this study. All were registered nurses, some held bachelor's degrees. Purposively, units staffed with all registered nurses as the lowest level of qualification were selected because internationally intensive care nursing is viewed as a specialized practice at the post registration level [47, 48, 87]. There were variation in participants' years of experience, the shifts they worked, and their gender composition. This heterogeneity was sought to try to capture rich data and gain understanding across the participants' experiences [117, 127, 128]. Spradley [111] describes characteristics of informants that will aid in understanding a particular phenomenon. Firstly, they should be enculturated; that is they should have an understanding of the culture, so they no longer have to think about it. Second, they should be currently involved in the culture. Spradley suggests that the participant should have at least one year of involvement to meet the second criteria. Third, participants should have adequate time and availability to provide the information. Lastly;

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participant should be nonanalytic, which is related to the ability of the informant for describing events and actions from his/her perspective. Spradley suggests avoiding those informants who may analyze and think about what the researcher wishes to hear. In this study, participants' experience in intensive care varied widely (1-20 years). To achieve sample enculturation and involvement, ICU nurses with a range of 1-19 years of work experience in the studied settings were recruited. Data collection activities were scheduled according to nurse's rostering times to gather as much information as possible with each participant. And, while attempts were made to ensure participants simply describe their practice there is no real way to know if they tailored their comments to what they though I, the researcher, was interested in hearing. Nevertheless, a combination of data collection strategies were undertaken for gaining meaningful data about the way ICU nurses interpret and understand their practice. Participants' understanding about intensive care nursing practice comprised the main findings of this study. The next section discusses these findings, both in terms of the themes and the categories that emerged from the analysis.

GAINING COMPETENCE

Gaining competence was one of the core themes that emerged in this study. Developing knowledge and skills, peer support for learning, ability to perform nursing duties and intuitive performance are the categories comprising this theme (See Chapter 4). How ICU nurses gain competence and achieve proficient or expert performance has been previously studied. In the 1980's and 1990's, Benner et al. [70, 129, 130] showed ICU nurses gained competence by testing and refining propositions and hypotheses in actual practice situations. Applying Dreyfus's model of skill acquisition, Benner asserted that ICU nurses had five levels of proficiency, novice, advanced beginner, competent, proficient and expert. These levels reflect the change from relying on abstract principles and partial perception of a situation to the use of past concrete experience and understanding of a complete situation. The present study has some commonalities and differences with the Benner's findings. It seems that Argentinian participants test their propositions and hypotheses by being exposed to clinical situations, and as a result they learn to solve clinical problems. Some elements of the proficient level of practice are

consistent with the category of intuitive performance that are discussed later on this chapter.

Argentinian participants understood their competence as to have a "know what" and a "know how" that equipped them, to be ready to perform and to act independently. This findings support Benner's idea of competence. She defines competence as the ability to perform a task with desirable outcomes under the varied circumstances of the real world [131]. In addition, Benner [130] states "knowing that" as a theoretical formulation and "knowing how" as a practical knowledge that not always has a theoretical support. Argentinian nurses described that "to be ready to perform" as their understanding of different circumstances for which they will have to be prepared; while the idea of being equipped implies having the "know what" and "know how" to do so. Intensive care nurses perform in clinical settings; thus, they based their performance on their clinical competence. Recently, Lejonqvist et al. [132] described clinical competence as encountering, knowing and performing. Encountering meant meeting patients and their relatives, doing good and humility. Humility was considered the awareness of the knowledge and skills required. Knowing meant having the latest knowledge and evidence in the care of patients. Lastly performing was described as having the confidence to care and mastering skills and procedures using the latest technology. Similarly, in this study, nurses reported that exposure to clinical situations, allowed them to accumulate experience. But, there is an important difference within the concept of knowing. Although Argentinian participants understood that a specific knowledge was required for a competent practice, they didn't perceive this knowledge to be based on research evidence. This perception of Argentinian participants might be due the lack of local practice based on evidence and the paucity of educators in clinical environments. To perform in intensive care required specialty knowledge and skills. How Argentinian nurses working in ICU develop their knowledge and skills was one category in the current theme, and is discussed next.

Developing knowledge and skills is described as having knowledge of medical conditions, mastering procedures and managing the equipment. This finding supports other studies in Finland, Canada, Australia, USA and UK that described knowledge and skills in intensive care.

ICU nursing knowledge includes normal and altered physiological and biological functions [76, 82, 83], knowing disease and understanding symptoms [132]. The skills were described as having manual skills, procedural knowledge and skills, using technology, having technical ability [76, 77, 132] and managing therapeutics and regimes [66, 84]. Technical skills and management of therapeutics and equipment have been also studied as nursing activities [59, 61, 62].

How nurses develop knowledge and skills have been described in USA and UK. For example, Reising [133] showed that ICU nurses gained knowledge and skills in an early stage of their careers described as early socialization. The early socialization comprised five stages. First, 'the prodrome' meant to gain foundation, knowledge and eagerness to learn. Second, 'welcome to the unit', was characterized by sharing experiences, looking for experiences, and reassuring. Third, 'disengagement/testing', that included increasing responsibility and independence, knowing the basics, what was also a source of stress. Fourth, confidence on care and decision making comprised 'on my own' stage. Finally, 'reconciliation' that comprised consulting, self-doubt resolved and acknowledgment of continual learning process was the last stage. The eagerness to learn, learning the basics, the stressing of becoming independent to work, confidence on care and the idea of lifelong learning are similar to the current study. Argentinian studied nurses acknowledged the learning journey was a difficult process that stressed them as described by Reising. Similar findings of O'Kane [134] mirror the difficulty and stress of the learning journey. She showed that nurses new to intensive care were challenged by performing their tasks and they had good and bad days. Workload, time management, and support were factors that influenced their performing and amount of stress. These factors were also suggested by Argentinian participants. Difficulty in gaining knowledge and skills is consistently reported across the studies.

Argentinian participants learned by taking courses, from their peers and from other health professionals. Learning in a formal course, especially under the umbrella of a higher education institution, is where specialized knowledge should be acquired [87], if it is to be grounded on evidence. Although, Argentinian participants reported they had undertaken courses, they didn't mention a higher education provider. This might be due to the handful accredited program available in the country [11]. The knowledge participants gained, changed and mutated in the interaction with peers and other

professionals. While this interaction may be positive for learning, the knowledge that others shared was accepted without criticism and reflection. The personal knowledge, while rich and valid, is based on individual experiences and assumptions [70, 130, 135, 136]; its use should complement the use of the best available evidence.

The lack of use of evidence in intensive care practice is one of the most relevant differences that emerge from this study when compared with international literature. The use of research evidence for practice has been described in the literature as knowing nursing concepts, basic and health science [76] clinical enquiry [78, 80] evidence/research based practice [82-84], using theory as based for practice, knowing and applying the latest research [51, 132]. As previously mentioned, Argentinian intensive care nurses may not have understanding of evidence based practice because they may lack education about it. In addition, some clinical and educational settings may not be able to equip nurses with this kind of skill. This might be due to the fact that some managers and academics may lack understanding of evidence based practice or the strategies they use are not influential enough to see visible change. The understanding of research as a foundation for evidence based practice has been acknowledged as a component of specialist competent practice by researchers and professional organizations in westernized countries [79, 84] and some non-western [77] where the roles of the nurse researcher and clinical educator are well known. While the use of research is not a common practice in clinical settings; Argentinian participants acknowledged their practice required continuous lifelong learning. This comprehension implies the awareness that there is always something to learn. This finding may mean nurses recognize their own ability and level of professional competency [76, 84]; consequently they feel they should seek professional development [82, 132]. Meanwhile, the research participants continued learning form their peers; the focus of the next section.

Peers support for learning was a category that emerged when ICU nurse participants described they supported their less experienced peers. Participants also reported to have been supported in their learning journeys. Peer support in clinical settings and intensive care is described in the literature as both part of competent practice and as an organized strategy for in-service education.

In terms of competent practice, peer support for leaning is described as an act to enhance the professional development of others. It means teaching and facilitation of learning [51, 78, 80, 84, 132]. It is considered an ability to facilitate learning for staff and other health care team members [80]. Likewise, the current study highlights that nurses support each other in their intensive care learning. They were supported as novices and they provided support when they became more experienced and resourceful. Argentinian participants acknowledged that senior peers made the novice nurses feel more confident since they could rely on their more experienced peers.

Peer support as an education strategy for learning is generally known as mentorship, preceptorship or tutorship [133, 134, 137-141]. It has been recognized as an important element of healthy work environments [142-144] that attracts and retains nurses in those environments [145, 146]. Two ideas about peer support as a strategy are important to acknowledge. First, nurses new to intensive have reported their peers' support helped them to go through the transition towards a new professional practice [139]. Additionally, they made the novice feel welcomed [140] in a positive learning environment [134, 147] and served as role models [148]. Second, providing support to peers, has been considered as part of the carrier progression [149]. It was also reported to positively influence personal practice, personal satisfaction, professional success, and organizational and professional contributions [150]. Most of the understanding of peer support comes from westernized countries. Peer support programs have been developed under an organized mentoring process or program in a clinical setting. Most of the studies report mutual understanding between mentor and mentee as an important foundation for providing support. Whilst the lack of formal recognition of peer support as a strategy is a difference with the Argentinian studied setting, the nurse's ability to support their peers was a commonality. Similar to these studies, nurses that provided peer support were perceived as role models, they had an emphatic understanding of the need of support of their junior colleagues, and they interpreted this practice as part of their role. What seemed to help their peers gain an ability to perform nursing duties is discussed next.

Ability to perform nursing duties is another category in the theme gaining competence. The ability to perform included being able to grasp and perform within a clinical

situation. Nurses recognized that not being able to perform compromised patient care during emergencies.

The international literature suggests the ability to perform is a component of a competent practice and it is referred as technical expertise, management of therapeutics, and performing/confidence. Scribante et al. [77] identified technical expertise as a requirement of nursing competency. It meant not only to master the technology but also included the interpersonal skills that allow nurses to identify other patient's needs. In addition, Dunn et al. [84] considered management of therapeutic interventions and regimes under the competency domain of enabling. While Argentinian participants recognize mastering technology and therapeutic interventions as part of their performance, interpersonal skills were interpreted as part of the collaborative practice, discussed later in this chapter.

Further, a Finish study reports performing and an ability to give total care to patients as a key element of a competent practice [132]. This performing implies handling varying situations, skills of the hand, courage, good routines, having manual skills, and mastering medical calculation and administration. Argentinian nurses interpretation of performing expands the concept reported by Finish authors. Additionally, participants recognized that a technical expertise combined with the ability to act is always important, but it makes a difference for the patient during emergencies. A difference with the Finish results is that Argentinian participants were aware that their less experienced colleagues may not have had the skill to manipulate simple and complex devices even when the patients were under their care. These activities were performed by other nurses or other health professionals. This might be due to the variation in the skill mix in the studied settings, the lack of formal training and the culture of the units. Finally, participants recognized that not having such ability to perform, compromised patient safety; this can be interpreted as self-awareness and concern. Awareness and concern in the clinical setting are considered as part of the concept of advocacy and moral agency in the Synergy Model developed for the USA context [79, 80]. When performing, ICU nurses use technical knowledge. This knowledge allows them to manage therapeutic regimes. When they gain experience they are able to perform intuitively. This issue is approached next.

Intuitive performance was an advanced application of skills and knowledge identified by the study participants. More experienced ICU nurses seemed to use intuitive knowledge and perceptions they gained with experience. Participants reported they could be present in the right moment the patient needed them, even if an alarm didn't sound. Intuition in nursing practice has been widely studied and discussed [72, 129, 136, 151-154]. Intuition has been defined as an understanding without a rationale [155]. Similarly, Argentinian participant couldn't explain how they could be aware the moment a patient clinical condition was changing. But, what made the ICU nurses to be physically present in the right moment?

A different perspective from the ecological psychology termed intuition as 'direct perception'. Direct perception is the 'activity of getting information from the ambient array of light' [156]. Further, McCutcheon and Pincombe [154] identified that intuition is the outcome of the interaction of knowledge, expertise and experience. These elements are mutually dependent and result in a synergy yielding an effect that is greater than their sum. Intuition is the result of knowing the patient, his/her responses as well as knowing the family. McCutcheon and Pincombe [154] also asserted that not all but on some occasions a strong physical and mental feeling experience is associated with moments of intuition. This kind of somatic response has been documented by other researchers. McCraty, Atkinson and Bradley, [157] reported that heart and brain are involved in receiving, processing and decoding intuitive information [157]. These researchers concluded that intuition is a system-wide process in which heart and brain play a predominant role. Likewise, more experienced Argentinian participants seemed to use this kind of process to gather information, process and decode it. They reflected on their past experiences, they acknowledge how different their performance was compared with their beginnings. Participants said they could have a broaden awareness of the unit, paying attention to many events happening in the unit; they could also be aware of their peers and the team members that needed support. Then, they supported them. Participants seemed to improve their intuitive ability and knowledge with experience. This may help them to achieve synergy, what is consistent with McCutcheon and Pincombe's findings [154]. Although, the current study did not support the somatic expressions; the intuition reported by participants might be direct perception plus a complex combination of knowledge, experience and expertise.

To be able to support peers and other team members is an ability participants achieved with experience. This ability is desirable as a component of specialist level of intensive care nursing practice. In Australia, Dunn et al. [84] described this practice as the ability to create a supportive environment for peers and other members of the team. In USA, it is an element of the Synergy Model, defined as the ability to recognize the interrelations of the care environment. This ability is a component of the system thinking competence dimension considered essential to provide appropriate care [78]. In the Argentinian setting, more experienced ICU participants were able to provide expert support to their peers and the team in the complexity of the intensive care environment. This finding is consistent with the international literature on competent practice. But, ICU nursing practice is complex; sometimes nurses perform in an overlapped manner, such as when they asses, anticipate and act. These practices are discussed in the next section.

ASSESSING, ANTICIPATING DETERIORATION, ACTING

The second major theme that emerged in this study was assessing, anticipating deterioration and acting. Participants expressed the three actions were dynamic and overlapped. Assessing, anticipating deterioration and acting, as previously mentioned, are the three categories that comprised this theme (See Chapter 4). It is acknowledged that intensive care implies assessment and actions may be performed quickly [158]. In this context where urgent actions are required, intensive care nurses' ability to assess, anticipate and act has been suggested to be a safety mechanism in the provision of care. This safety mechanism involves identifying patients in deterioration and preventing medical errors.

Nurses' key role in identifying patient deterioration and being the first tier response has been widely acknowledged [159-162]. Among the clinicians, ICU nurses are the ones that stay at patient bedside most [163]. As a result nurses are more likely to rescue patients from complications [164, 165], because recognition of patient clinical deterioration, is identified in a timely manner [161, 162, 166]. Early recognition of deterioration contributes to timely treatment and care intervention.

Nurse's key role in preventing medical error has been described as "recovery of medical errors" [167]. How nurses recover patients from medical errors has been studied in the USA. Identifying, interrupting and correcting are three strategies ICU nurses use to recover patients from medical errors [158]. Identifying means knowing the patients, other professionals, the care plan, the policies/procedures, do double checking and questioning. Interrupting implies offering assistance, clarifying, and verbally interrupting. Correcting involves persevering, reviewing the care plan, offering options, referring standards or experts, and involving another nurses or physician. The key ICU nurse role for safety mechanism in practice is overlapped. While the current study didn't focus on identification of patient deterioration or medical errors, the way nurses perform assessment, anticipation and actions is consistent with the international literature on rescuing patients and preventing medical errors. The specific actions of assessment, anticipation and actions as described by Argentinian participants will be next discussed individually.

Nursing assessment allowed participants to identify patient needs. They also asserted that by assessing they identified potential alterations in patient's condition. In order to do so, they had to recognize and interpret signs and symptoms.

Nursing assessment is a common nursing practice well known as part of the nursing process [168]. This practice is considered a standard of professional practice in intensive care [40], and generally implies evaluation of patient needs, signs[1] and symptoms[2]. How nurses recognize patients' needs, signs and symptoms in intensive care patients was studied in USA by Puntillo et al. [169]. Their findings point out that nurses use physiologic signs, behavioural signs or a combination of both to infer the presence or absence of a symptom. In addition, nurses also infer patient symptoms and needs based on the observation of patient's condition and interaction with patient and family. Then, they elaborate and assume a meaning based on assessing that dimension of the patient's situation. Further, signs and symptoms were frequently gathered collectively. Puntillo et al. pointed that symptoms that were not identified were not treated. Findings of the present study partially support Puntillo et al.'s study. While

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[1] Sign: An objective body manifestation that indicate a body function.
[2] Symptom: Any subjective expression of the patient that could be related to body function and that may indicate the presence of a medical condition.

Argentinian participants understood the importance of identifying signs and symptoms in terms of the prevention of potential complication; their emphasis was based in identifying alterations that were more related to signs than symptoms. This has the potential to undermine other patient needs. The studied settings had a limited 'time policy' for family presence, thus participants may have limited opportunities to assess the interaction between the patient and family. However other findings of this study (individualizing care) suggest some patients' individual needs are recognized and addressed. This will be discussed later on this chapter under the category individualizing care. Intensive care patients can be unconscious, alert or quasi alert, with limitations to mobility and self-expression due to severe injury and the presence of life support devices such as endotracheal tubes, intravenous lines, and other treatment and drugs they receive. A patient's critical condition challenges nurses ability to identify patient's needs and symptoms. It is within this clinical context that the skill of assessment becomes important.

Furthermore, nurses in this study understood assessment as monitoring and ongoing interpretation of their observations for further activation of a collaborative action. This finding supports the international literature on competent practice in intensive care. Monitoring in intensive care has been described as a technical and life support competence [76], vigilance and monitoring [80, 82] and intense observation [163]. The nurses' ability to interpret patient information and decide a course of action has been studied as well. Aitken et al., [170] explored the decision making of expert nurses before and after the implementation of a sedation protocol. These researchers reported that nurses used more attributes related to sedation issues after the intervention and recognized particular patient needs. The researchers acknowledge it was not possible to identify a linear decision making process in terms of sedations practices because nurses were working in multiple components of their practices simultaneously; they were shifting from one priority to another. Findings of the Argentinian study are partially consistent with Aitken et al.'s findings. Argentinian participants perform in an overlapped/multitask manner, which is assessing/anticipating/acting. It is within this multitasking context where they have to identify priorities for deciding to activate a collaborative action. This action means a judgment of patient clinical condition and the anticipation a potential clinical course. Anticipating deterioration is discussed next.

Anticipating deterioration was performed concurrently with assessment. This practice focuses on the identification of early signs of deterioration. Participants stressed that recognition must be done in a timely manner so that clinicians can alter the course of deterioration.

To identify early signs of deterioration is a special skill studied as nurses' use of the available clinical information or clinical judgment when deciding whether a patient is at risk of a critical event such as cardiac or respiratory arrest. Researchers reported findings on clinical judgment in intensive care nurses made in UK, The Netherlands, Canada and Australia. These authors found that assessment of risk varied considerably, since nurses weighed and synthetized information in different ways and in a non-linear fashion to make a proper decision [171]. Participants in the Argentinian context were concern about the risk of deterioration; but it is not possible to say what process they used to weigh the risk. However, they emphasised surveillance with the aim to prevent deterioration. Preventing deterioration as an aim has not previously been identified in international studies. What drives Argentinian participant to act after anticipation is addressed next.

This study identified three kinds of acting. First, once the abnormalities were identified, a course of interventions was carried out. Participants claimed that identifying priorities and acting effectively according to a changing clinical situation was a vital duty. A study of Thompson et al., previously mentioned, on clinical judgment, also describes the nurses decision to intervene or to act under time constraints [171]. Thompson et al. showed that the experience in intensive care was associated with the estimation of risk but it was not associated with the decision to act. Further, it also points that under time constraints nurses may make less appropriate decisions. It is not possible to compare Thompson's findings and the Argentinian findings due to the difference in the nature and aims of the studies. However, Argentinian participants reported an important duty was to identify priorities and to act in changing clinical situations. A changing clinical context implies time constraints as well as the need to prioritize. The studied participants may be aware of their time limits and the potential changes, consequently they recognize this way to act/intervene as a vital duty.

Second, clinical condition more precisely, conscious / unconscious patients determined the kind of nursing actions undertaken. How patients' condition influence intensive care nurses actions was described in the Synergy Model [79]. According to it, resiliency, vulnerability, stability, complexity, resource availability, participation in care, participation in decision making, and predictability are patients' characteristics that drive nurses' action in intensive care. Unconscious patients are usually ventilated, sedated, have important limitations in feeding, movement, and are unable to communicate their needs. This kind of patient is extremely vulnerable, clinically unstable, and unable to participate in their care or to make decisions about their care. Conscious patients can do more in terms of participation, communication and decision making. It seems that Argentinian participants distinguish very well these differences in patient's clinical condition and their actions were altered accordingly. Consequently, it is the patient's clinical condition that drives ICU nurses decisions surrounding some care. This finding is strongly consistent with the principles described in the Synergy Model.

Third, acting also meant "doing" essential care on daily bases. Interventions such as oral care, skin care, infection prevention, control of patient-ventilator synchrony, among others, are duties identified as common practices in the Argentinian setting. This finding supports international studies that have described these nursing actions as "direct care nursing activities" in Australia, UK, and USA [59-62]. For example, Abbey et al. in Australia, considered direct care activities such as admission and assessment, procedures, patient/family interaction, assisting with procedures, hygiene, patient mobility, medication and intravenous administration, nutrition/elimination, transporting patient, specimen collection/testing, computer: data entry/retrieval. Direct care consumed most of ICU nurses time. In the Argentinian context, the purpose was not measuring the time the activities took; instead, these activities were observed and were reported by participants as performed on daily bases. A direct care activity or essential care, performed on daily bases may likely consume an important amount of nurses' time in the Argentinian context as well. Considering the differences in the countries and cultures where these studies were undertaken, and the methods used to identify them, essential care seems to be a common practice in USA, UK, Australia and Argentina.

COLLABORATING TO PROVIDE CARE

The third major theme that arose was collaborating to provide care. This theme is comprised of the categories of teamwork and effective communication and understanding (See Chapter 4). The intensive care environment as a highly specialised area is well known for multi professional close interactions. Interaction means a level of communication and understanding among the professionals. Thus, optimum communication and understanding results in good collaborative work and better patients' outcomes. [172, 173]. However, achieving collaborative work is challenging [174], with some researchers describing the tension between ICU practitioners, especially between doctors and nurses [175]. The expanding/contracting nature of the teams, the degree of collaboration and conflict, and the forces underlying collaborative fluctuations are the main issues ICU teams face in a multi professional relationships [175]. In addition, associations were reported between the variability in communication and development of ventilator associated pneumonia; and timeliness of communication and presence of pressure ulcers [176]. But, when a good level of collaboration is achieved, ICU team performance can be beneficial to patients' outcomes. Researchers from the USA reported that multi-disciplinary rounds, assessment of beds availability, the use of evidence based bundles, and the culture of multidisciplinary decision making had a positive impact on patient outcomes [177]. After the application of the mentioned strategies, nosocomial infection rates declined, adverse event were reduced as well as was the average length of stay in ICU. Similarly, Pronovost et al. [178] concluded that the application of a communication strategy of daily goals of treatment and care among doctors and nurses had a positive influence on patient outcomes. In the Argentinian setting teamwork and communication seems to be an important issue for intensive care nurses as well.

The category teamwork emerged when participants talked about working in a group that had an aim. Nurses, doctors, aid staff, allied health care practitioners were part of the team. Teamwork was vital during emergencies and when the patient was deteriorating.

Teamwork has been well studied from the perspective of organizational/industrial psychology. Teams have been defined as 'a set of individuals interacting adaptively, interdependently and dynamically towards a common and valued goal'[179].

Argentinian participants seemed to have a clear understanding of how they were a team. Participants stated that intensive care milieu was populated by a group of individuals of different professional groups with a common aim. Furthermore, principles characteristic of teamwork include flexible behaviors; members that required monitoring each other and being willing and able to back fellow members up; clear concise communication, coordination of collective and interdependent actions; leadership for direction and planning, and dependency on the task and context [180]. ICU nurses in this study described teamwork consistent with these principles. Participants said they made decisions to support each other and to join their efforts for the patient, which can be interpreted as a flexible and supportive behavior that changes according to patient's condition. If a patient's condition changes, it means the task and context changes. So, it can be assumed that the idea of dependency on the task and context is implicit in participants' narrative. The participants said they contributed to the team, they tried to get along with one another, and they felt responsible to the team. This effort to contribute could be interpreted as a positive attitude that endows the collective action of the team. In addition, studied nurses perceived communication and coordination as an essential element of collaborative work. Lastly, participants said the more skillful members of the team had a leading role when patient was deteriorating. Response to patient deterioration required coordinated decision making and action. Participants asserted that anticipating as a team was part of the provision of good care. This will be discussed later with the category of communication and understanding.

Another aspect of understanding teamwork in the studied setting is exploring the skills required for team working. Flin et al. [181] propose a set of skills that are especially important in high risk settings. The proposed team skills are supporting other team members, conflict resolution, exchanging information and coordination. How ICU participants perceived their team skills was not consistent with the set proposed by Flin et al. Although participants described supporting others and the importance of communication skills, their ability to solve conflicts couldn't be inferred from their narratives. This might be related to the culture of the professions involved in the team, in that Argentinian nurses tended to avoid conflicts with other practitioners by accepting of their authority. In South Africa, Scribante et al. [77] described teamwork and networks as a critical care pattern of interaction, that have a positive influence in the health team. Similarly, in Australia and Canada Dunn et al. [84] and Fitch [76]

respectively identified teamwork as a competence domain that includes be supportive and collaborative with peers and health team. Thus, how Argentinian participants interpreted the concept of teamwork was consistent with the findings in South Africa, Australia and Canada.

Argentinian participants also interpret teamwork as collaborative work. Collaborative work was identified when nurses expressed they work with peers or colleagues from other professional groups. There was a dependency on the other. A lack of collaboration was perceived as a potential to compromise patient safety. To work with others properly it was necessary to have good communication skills.

A collaborative approach for intensive care practice has been acknowledged and recommended [30]. However, collaboration among professional groups and especially between doctors and nurses can be challenging. For example, in USA Stein-Parbury and Liaschenko [182] identified that collaboration worked best when doctors could verified nurses' cues with physiological disruptions. But, when this verification was not possible, nurse's knowledge of the patient was dismissed and collaboration became more distant. The authors claimed both nurses and doctors use different information for decision making and when doctor's cues fails to explain a patient condition, doctors devalued nurses' knowledge. Another study based on a survey of European ICU nurses found that nurse-physician collaboration varied. The perceived effectiveness of collaboration with physicians was significantly lower among nurses from Italy and Greece than among nurses of Nordic countries [183]. In the case of the Argentinian study, participants didn't refer to difficulties with collaborating with doctors. However as described in the USA and European studies, nurses knowledge and unit culture influences the extent of collaboration. The USA and Nordic European countries have long history of development in intensive care nursing higher education, which may help nurses develop confidence and assertiveness. The lack of formal intensive care higher education in Argentina may have a negative influence in nurse's performance in practice. Collaboration means a contribution with specialty knowledge of intensive care nursing as differentiated to medical knowledge. If nurses lack such knowledge, their contribution may be limited. Moreover, culture plays an important role as claimed in the European study [183]. The health care system in Argentina is medically dominated, which has a strong influence on the intensive care culture. Both lack of specialty

knowledge and culture may make nurses unaware of the scope of collaboration and how they can more actively participate in decision making and the provision of a collaborative care.

Finally, collaboration as a skill for a competent practice has been described as both an interpersonal and a team skill by Fitch et al. in South Africa [76]. The Synergy Model in USA, considers collaboration as the ability to work with colleagues both intradisciplinary and interdisciplinary [78]. Finish researchers, Lejonqvist, Eriksson and Meretoja, reported collaboration as cooperation and connection among the ICU team members which was a component of competency [132]. These researchers claimed that competence was founded in professional identity and professional knowledge. Collaboration as interpreted by participants in this study, support the Finish and South African studies and the competence component of the Synergy Model. However, participants in the current study didn't recognize their contribution in terms of knowledge; they interpreted their contribution in terms of mutual support and good communication. Work in intensive care by nature implies participation and collaboration among different professional groups for assisting the critically ill, and to be willing to support and communicate each other is positive and a valued attitude. Although, some variations exist in team compositions according to the countries, doctors and nurses will likely always be indivisible partners. Both nursing and medical knowledge will play a major role in clinical setting. However, in settings like Argentina, to contribute with specialty knowledge might be challenging for ICU nurses, potentially due to the embryonic stage of higher education in intensive care nursing and the difficulties clinical settings face to provide continue in-service education.

Effective communication and understanding was another category in the theme of collaborating to provide care. Communication in intensive care has been the focus of many studies. There is growing body of evidence using the human factor engineering approach, formerly used in the aviation industry, to understand and improve health care communication. Factors that influence team communication and the influence communication has on patient outcomes are two main areas of research particularly important for intensive care practice.

Intensive care units round is a common communication practice. It is important to note that ICU nurses in this study, rarely participated in ICU rounds. Yet it is during these rounds that the patient condition is discussed, potential treatments are debated and a plan of care is developed. The fact that nurses were not involved in this important daily routine meant they missed opportunity to provide and gather patient information. If communication helps to gain understating of patient care goals, the lack of understanding may compromise patient safety. Error may occur when decisions are made based on incomplete information. Donchin et al. in the 1990's investigated the nature and causes of human errors in a medical surgical ICU in Israel using the human factor engineering method [184]. The authors assumed that the errors had a pattern (related to communication) that could be uncovered. After four months of data collection, 554 human errors were reported by the medical staff. Physicians and nurses were about equal contributors to the number of errors, although nurses performed many more interventions per day. The authors reported verbal communication between caregivers in 9% of all activities in the unit; most communications were between nurses and between doctors. Nurses and doctors communication occurred in 2% of all activities, but this was associated with over a third of errors. They concluded the reason for this finding was due to the informal and infrequent communication between doctors and nurses, in addition to the misunderstandings regarding the information they shared. Donchin et al. suggested that nurses should be involved in formal communication such as an ICU round because of their proximity to the patients allows them to build a bridge between patients and doctors. Findings in the Argentinian study show poor participation of nurses in formal communication opportunities. Although, the nature of this study was neither to measure patient incidents nor communication patterns, nurses' rare participation in ICU rounds may ultimately compromise patient safety.

An important issue associated with communication in ICU is that informal and formal communication help ICU clinicians to be aware of patients clinical condition and the potential course of care and treatment. In the current study, participants identified effective communication and understanding as an essential ingredient for team working and collaboration. Participants stated that effective communication meant the "other" who they work with can "interpret" what they want to transmit. This understanding is positive and proactive to build situation awareness (SA). SA has been described by Endsley [185] as an individual perception of the information within a given task

environment and the anticipation of potential future states of the situation. The process of gaining SA is described as sense making or making sense driven by a 'continuous effort to understand connections (which can be among people, places, and events) in order to anticipate their trajectories and act effectively'[186]. When performing as a team, the ability of the team to recognize the situation and to anticipate an actual course of facts and act in consequence properly is called team situation awareness [187]. However, it is not possible to say to what extent the studied nurses helped the team to build SA, or given the interruptions to what extent the sense making process was compromised.

INDIVIDUALIZING CARE

Individualizing care was another theme identified in this study. This theme included the categories of tension between routine and individual patient needs and connecting with the patient (See Chapter 4). Participants expressed individualizing care as a practice focused on meeting individual patient needs in intensive care. To meet patient particular needs, nurses had to know the patient in a way that allowed them to identify patient needs and tailor their care accordingly. Tanner et al. described knowing the patient as knowing the patient's patterns of response and knowing the patient as a person [188]. Knowing also meant the nurse to be culturally involved in the interaction with the patient and advocated on behalf of the patient. These researchers emphasized that 'culturally nurses are given access to private knowledge about care of the body and maintaining integrity and selfhood in the midst of breakdown and vulnerability' [188]. Participants in this study didn't say if they knew the patient as a person, but they acknowledged they tried to see and understand the person as a whole even when the patient was unable to communicate. It is not possible to say if the studied nurses had an advocacy role or to what extent the knowledge of the patient helped to their clinical judgment. However, participants could achieve a level of patient knowledge that helped them to intervene in appropriate manner. Although it was not an explicit finding of this study, nurses' role in maintaining patients' integrity and selfhood was acknowledged when they recognized they were aware of the difficulties in meeting patient particular needs, especially in the high tech environment. The tension between attending to routine and individual patients needs is one category in this theme, and it is discussed next.

Tension between routine and individual patient needs is a category that reflects nurse's effort to meet patient individual needs. They knew that in a particular time in practice they could turn their focus to the equipment only. But education could help to prevent this behaviour a participant said.

Meeting patient's particular needs in a highly complex environment such as today's intensive care is challenging. An Australian qualitative study, by Walters in the 1990's, uncovered two main themes of intensive care nursing practice that reflects this challenge [189]. The first theme, being busy, meant a "concentration on the technical aspects and the fast pace of nursing practice in the intensive care unit". Subthemes were one nurse one patient and pace the work. Similarly, Argentinian participants focused on technical aspects, more precisely the technology. The Walters finding "one nurse one patient" refers to one nurse one patient ratio. He stated that this ratio helped nurse/patient closeness. In Argentina, the national standard is one nurse two patients; this low nurse patient ratio may have the potential to influence the nurse/patient closeness. The pace of work idea, referred to the busy clinical work. In a busy day the same time has to be devoted to two patients; low nurse patient ratio may challenge nurse's ability to focus on patients particular needs. The second theme of Walters' study, balancing, implied 'the recognition that intensive care unit is an environment with objective and subjective dimensions, part of the nurse's role is to unify that dimensions in the process of care'[189]. Subthemes comprised organizing the bed area, caring with technology, and preserving dignity. Findings of the Argentinian study support these findings. Participants in the Argentinian setting had awareness of these subjective and objective dimensions; they seemed to turn their focus from patient to technology at some point in the practice continuum. Participants didn't mention organizing the bed area or preserving dignity. Instead they could be compassionate. Compassion for Argentinian participants could be a way to preserve or respect patients' dignity. Further comments on compassion will be made later on this chapter. Caring with technology was not perceived by Argentinian participants as a caring behavior, instead, it was considered a skill required for providing proper care.

Connecting with the patient was another category that described the effort nurses put into the nurse/patient relationship. Nurses tried to gain understanding about patients

experience and feelings. Participants expressed that there were patients who they connect with easier than others; those who they felt more comfortable with. There was recognition that patients are different so they needed different kinds of caring.

Connecting with the patient occur within a nurse-patient relationship. Using a Heideggerian hermeneutical approach, European researchers, Vouzavali et al., have recently explored the intensive care nurses' perceptions and meaning related to the interpersonal relationship with critically ill patients [190]. These researchers highlighted a core theme named 'syncytium', which represents the nurses' perception of a close connection with the patients. Vouzavali et al. explained syncytium was a concept derived from physiology that means cells network for coordination and function. The closeness between nurses and patients was described as a symbiotic relationship within the syncytium. Argentinian participants made efforts to be close to the patients by understanding patient's experience. Other themes on the nurses-patient relationship uncovered by Vouzavali et al. were the emotive aspects, perceptions of spatiality and temporality. The authors noted that nurses connected with the patients via permanent contact with patients' bodies rather than a conventional interaction. Finally, these researchers asserted that patients provided nurses the opportunity to live 'authentic care' while nurses were involved in the 'being in the world' of the patients. The Argentinian study partially supports Vouzavalli et al.'s findings. The ICU studied nurses seemed to participate in the 'being in the world' of the patients with a grade of difficulty they recognized when they said they tried to connect. Emotions were evident especially when they identified patient suffering. They seemed to connect by understanding patient illness and suffering, which could be also interpreted as a way of being in the world of the patient. It seemed participants were pursuing the syncytium as an aim, more than an actual live experience. Participants didn't identify space and time as issues within the nurse-patient relationship; instead, they recognized patients were different, thus care to provide should be different. Caring is the last core theme emerged from this study, and is approached in the next section.

CARING

Caring was the last core theme that arose from this study (See Chapter 4). Caring meant the recognition of the patient as a person who was experiencing an illness. The patients' pain and sorrow was identified and approached compassionately. In this study, caring was a continuum; on the one end, commitment, compassion and empathy could be located. On the other end, detachment non-compassionate actions, non-empathic behaviors and detachment could be placed.

Caring is a central concept for nursing. It has been defined as intervention nurses performed when treating the person as a whole [191]. Caring or care has a central meaning for nursing discipline that is consistent across research and theory [5]. Caring and care are key component of competent nursing practice in intensive care. The ability for caring was described as a clinical competence in the caring relationship [51], as a skill base nursing intervention [82, 83], a caring practice focused on creating a compassionate, supportive and therapeutic environment [79], as a professional competence trait [76], as a pattern of interaction [77], and as an act to enhance the dignity and integrity of individuals and groups [84]. Preserving the human dignity has been considered a goal of caring in nursing [192]. Although contextual differences can make the caring expressions be different, Argentinian participants considered caring as a component of the ICU nursing practice as well.

Additionally, many researchers have illuminated the concept of caring from the ICU nurses perspective [193-196]. For example, using a qualitative approached Wilkin and Slevin [193] found that care as a concept contains three related themes, nurses' feelings, nurses' knowledge and nurses' skills. Nurses feelings involved comfort, touch, empathy, presence, dignity, holistic care and caring for the careers. Knowledge meant knowing the patient, caring for significant others, technology, prioritizing care and critical situations. Skills implied nurse–patient interaction, physical support, advocacy and barriers to caring. The findings of the current study partially support the Wilkin and Slevin conclusions. The Argentinian nurses studied made comments consistently with these main themes, while the categories in the themes were not fully mirrored. This is explained by the methods of both studies. Wilkin and Slevin specifically studied care in intensive care while the aim in the Argentinian setting was to describe ICU nursing

practices. Yet, caring as an umbrella for specialized knowledge, skills and attitudes for the provision of care is strongly consistent with the findings in the Argentinian setting. However, the Argentinian study identified caring as a continuum with a great variation within the care continuum. This variation was reflected by the categories identified in the theme, compassion, empathizing with the patient and detachment. These issues are approached next.

Compassion represented nurses' sympathetic pity for patients' and families' suffering and distress provoked by illness. Nurses' sensibility allowed them to help the patient and their families to cope with the situation of illness. A study, about ethically difficult situations ICU staff faced, described compassion as an intention [197]. The researchers uncovered a main theme 'tragedy' and subthemes 'consolation, realism, and faithfulness. They found that ICU staff's way to meet the tragedy of ICU patients was through a spirit of compassion. This was translated in an 'intention of compassion'. The intention was the driver for actions when facing the patients' tragedy. The intention of compassion aimed to give consolation. To do so, the ability to endure suffering and maintain confidence in life was necessary. The Argentinian participants seemed to understand the tragedy of their patients, and their intentions were translated in the help they provided to patients and families. Further, Vouzavali et al. [190] identified compassion as an emotive element of the nurses-patient relationship that made nurses to give meaning and direction to their lives. Argentinian participants interpreted compassion as demonstrating patience towards patients although they recognized this was not easy for them. Consequently, non-compassionate nursing behaviors, including negative emotions, were also identified. Some literature suggested explanations of negative emotions of nurses in intensive care. Lack of time, workload, be new in the profession, tiredness are barriers for providing a compassionate care [198]. Nurses' feelings of distress may also influence their compassionate behavior. A study on moral obligations and work responsibilities in intensive care suggests that nurses feel distress and frustration when they mirror themselves in a given patient situation [199]. Additionally, the researchers noted that nurses who were experiencing personal difficulties, find it challenging to support vulnerable patients, such as ICU patients. The pace of work in intensive care does not provide nurses the time to deal with their own needs, a source of moral distress for nurses, the researchers asserted. These studies may help to explore why Argentinian participants demonstrated some negative behavior.

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They may have had awareness of the difficulty to be compassionate and patient when providing care. Some reasons could be the time constraints nurses felt. Other reasons related to nurse as individuals, such as nurse's personal needs left unattended, nurse's tiredness or moral distress may negatively influence a compassionate care. However, more studies are necessary to explore the causes of non-caring behavior in the Argentinian setting.

The current study also identified compassionate interventions for helping patient and family. These interventions were providing essential care, coaching the patient, improving patient personal image and giving information about procedures to be performed. These findings are consistent with the caring practices of the Synergy Model [79], and have been described as part of a competent practice [66, 76, 82, 132]. Caring for the patient's personal image was described as an important comforting action; it also meant the care of the body when the patient was not able to communicate [194]. Findings of the Argentinian setting are consistent with these findings. It seemed that Argentinian participants' understanding of compassionate practice was a component of competent practice in intensive care. To provide a compassionate care it is necessary empathize with the patient. This is the foci of the discussion next.

Empathizing with the patient was another category in the caring theme. Empathy meant an understanding of patient situation and an ability to share patients' feelings. Nurses expressed their empathy by imagining themselves in the patient situation. In the 1990's, using a phenomenological approach, an English researcher, Baillie, described the nature of empathy in intensive care. The main findings of this English study suggested that empathy required nurses to put themselves in the patient's position and to try to understand what the person is living [198]. Additionally, empathy was described as closeness, as active and therapeutic, as an individual and personal experience, as an ability that is developed, as an action 'empathizing' resulting of getting to know the patient. The researcher also identified barriers for empathizing which were lack of time, being busy, fear and anxiety of junior nurses and difficulties in communication [198]. Further, the researcher noted if nurses didn't have a similar experience to the patient, personal or professional, or if the communication was difficult, empathy was harder to achieve. The findings of the Argentinian setting partially support Baillie's conclusions. Participants' understanding of patient feelings and the way nurses gain empathy are

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consistent. Other commonality is that previous personal or professional experience helped nurses to empathize. The previous experience becomes a personal knowledge of the nurses. This knowledge may help them to understand patient situation. Participants in the current study used the sense of humor, the inclusion of family and care of patient's privacy as emphatic interventions. The inclusion of family in the care and preservation of privacy have been described previously [195] as well as the humor as an emphatic intervention [200].

Another study identified empathy within nurse patient relationship. Vouzavali et al. [190] claimed that empathy is gained by communicating, an important element of the relationship. Thus, when verbal communication is not possible, empathy is mediated by the contact with patient' body and gaze. These researchers also noted that empathy mean an intimate relationship with the patient; which was intense and at times painful. While Vouzavali et al. reported pain as a result of an emphatic nurse patient relationship, the Argentinian participants reported painful personal experiences that helped them to empathize with the patient. Conversely they also showed non-empathic behaviors. This might be due to the lack of previous experience, or because it might be too painful for them to share others' misfortune. Thus, non-emphatic behavior could be one way to cope with clinical situations. However, more studies are required to explain this issue.

Contrary to the categories of compassion and empathising with the patient, detachment was a category expressed by participants as a desire to avoid a connection with the patient. The lack of connection is depicted by performing automatically, and avoiding listening and talking to the patient. The concept of detachment was first described by Fox, referring to one point in the physician – patient relationship. He, said the physician is "expected to maintain a dynamic balance between the attitudes of detachment and concern" [200]. The author emphasized that balance was important for an objective clinical judgment and equanimity; while the counterpart attitude was being sufficiently concerned about the patient to provide a compassionate care. The current study proposes caring and non-caring as a continuum. Detachment is an element of one extreme end of the continuum. This continuum reflects the duality of Fox ideas of detachment and compassion.

Other studies have provided evidence on detachment and concern in intensive care. An early qualitative study by Coombs and Goldman [201] described how ICU staff (nurses, doctors, and allied health providers) maintained detachment and concern in an intensive care unit. Humor, focus on the work, language alteration and rationalization were used as coping mechanisms in order to maintain a balance. Humor helped the staff to keep the atmosphere as light as possible. Argentinian participants seemed to navigate with a grade of difficulty in the detach/concern continuum. It seemed that their coping mechanism may have failed as described by Coombs and Goldman. As a result detachment was magnified. However, more research on this regard may expand understanding on the issue.

Finally, a recent qualitative study of intensive care neonatal nurses showed the dual nature of detach/concern in nurses' practice. The researchers found nurses made efforts to keep an emotional distance, but concern was prominent in some specific occasions [202]. Long term patients provided more contact and involvement opportunities, thus more concern were devoted. Patients who surprised nurses for any reason or died were associated with more concern. The authors noted the detach-concern in intensive care had a duality in nature. This duality is also reflected in the Argentinian setting since compassion and detachment practices were identified. As stated by Coombs and Goldman, more experience practitioners cope better and are able to effectively balance the dual nature of detach - concern. Argentinian participants may need competence to manage detach/concern. This balance is required for a proper clinical judgment and care.

Intensive care nurses practice in a highly demanding environment within a hospital organization. The social and organization milieu influence nurses' practices inevitably. Some contextual factors, that serendipitidely were found, are discussed in the next section.

CONTEXTUAL FACTORS THAT INFLUENCE TRAINING AND PRACTICE

This study aimed to describe the intensive care nursing practices in two private ICUs in Buenos Aires. However, other serendipity data emerged from participants' narratives

and fieldwork. These findings, related to *nurses' personal characteristics*, the *institution* and the *professional recognition* were identified as influencing ICU nursing practice; but they were not the essence of that practice. The context here is interpreted as a context of the practices; thus, the context implies other issues such as nurses' personal characteristics, institution and recognition. Because of the focus of this study was on knowledge, skills and attitudes, the contextual factors that emerged were not explored explicitly, thus they should be considered cautiously. A discussion of these findings is presented to illustrate how nursing practice is not independent of its context.

Factors related to nurse's personal characteristic such as being a good and honest person were reported to be important by participants. They gained a sense of wellbeing when doing their job right. This finding is consistent with the international research on competent practice. Personality trait were considered important competence element for intensive care in Canada [76]. Being honest, calmness, self-confident were characteristics of the maturing/becoming dimension of competence in the Finish context [132]. In addition, another Finish study, pointed that intensive care competence had a personal base domain that included humanity and ethicality, way of working and work motivation. Argentinian participants interpret being honest as doing the right thing. This attitude may help them to act based on an ethic principle "doing the right". What seemed to contribute to their wellbeing. Nevertheless, studied participants express their wellbeing was affected. Sometimes they felt tired and fatigue.

Participants expressed they had struggled to perform when being tired and fatigued. Most of the participants said they had a second full time job position. Tiredness, fatigue and errors in nursing have been previously studied. A USA survey of 502 ICU nurses examined 6017 nursing shifts reported by participants [203]. Almost half of the nurses (44%) had 12 hour shifts schedules, but they actually worked more than 12 hours. The longest scheduled shift was 17 hours, and the longest actual shift was almost 24 hours. An important percentage of nurses (65%) reported to have difficulties to stay awake at work at least once during the study. Of those nurses 20% reported to falling asleep at least once in the shift. Drowsiness and actual sleep occurred during day and night shifts. Twenty seven precent of the nurses reported making at least one error; and another 38% reported making at least one near error. The majority of errors and near errors involved administration of medication. It is not possible to compare the USA study and the

Argentinian study since the study aims and methods are different. However, tiredness and fatigue reported in both countries have different reasons. In USA long nursing shifts cause tiredness and fatigue, while Argentinian participants reported a second job position that causes them the same symptoms. Although the current Argentinian study didn't aim to identify errors, the tiredness and fatigue reported by participants had the potential to cause medical errors.

Participants were studied across all shifts, including night shifts. It has been reported that the performance at night is affected by the circadian regulation of sleep/wakefulness [204]. The combination of night shift and fatigue may increase the potential of casualties [205]. Argentinian participants were concerned about the fatigue they experienced. They reported they prioritized their time to rest over the family and education activities. It seemed they had a sense of responsibility or agency towards the work. Further studies may provide a better understanding of tiredness and fatigue and its influence on patient outcomes, as well as the reasons motivate nurses to get a second full time job.

Another important issue on fatigue is the extent to which it affects nurses' ability to care for the patients; Nurses are exposed to permanent suffering, life and death situations permanently. As professionals they should be compassionate and emphatic. Nevertheless, a concept derived from the clinical psychology pointed that being compassionate and emphatic has an extra cost. Figley [206] stated that when trying to understand the world from the point of view of those who suffer, we suffer. As a result the care provider, emotionally affected, is not able to provide the same level of compassion and care. This was described as a kind of secondary traumatic disorder known as compassion fatigue [207]. A study in intensive care setting reported that staff who had higher levels of personal stress, also reported higher levels of compassion fatigue and clinical stress [208]. ICU studied participants reported to have two full time jobs and the majority of them in intensive care. This personal situation may increase the exposure to suffering of others and may result in compassion fatigue. Compassion fatigue may also explain the detachment category previously discussed. However, more research is necessary on this field in the Argentinian setting.

Factors related to the institution that influence the practice comprised the environment for clinical learning and adequate equipment and staffing. Institutional factors that influence nursing practice have been well described in the literature. Research evidence demonstrated that hospitals with a given characteristics named 'magnet' attract and retain more nurses and have better patient outcomes [142-146]. Institutional characteristic such as: working with clinically competent peers, collaborative relationships between nurses and physicians, clinical autonomy, nurse manager support, control over nursing practice, perception that staffing is adequate, leadership, support for education, and a culture in which concern for the patient is paramount were described as essentials for magnetism [209]. Additionally, intensive care units that rated higher the essentials for magnetism also reported higher job satisfaction among nurses and higher quality of care for patients [144]. Contrary, Stone et al. [210] found that 17% of 2,323 ICU nurses reported intention to leave their jobs due to working conditions and organizational factors. Working condition included wages and staffing policies. Organizational factors implied perception of opportunities for professional development and participation in hospital governance, and perception of working with competent peers. The same factors were rated higher by those not intending to leave. Argentinian participants viewed the ICU as a proper environment for learning. Nurses expressed they lived challenging situations every day. They learned overcoming those challenges. Nurses perceived they could achieve professional development in intensive care. There might be some specific magnet characteristic in the studied units that made nurses to perceive the ICU as a potential for professional development. Another explanation might be that intensive care is perceived as a highly specialized milieu; thus, ICU practitioners are perceived as better qualified compare to other areas of the hospital [163]. Participants expressed they wish "to belong" to intensive care, they pursue to be transferred to ICU. Participants might have been looking for recognition based on the special skills they could gain in intensive care.

Professional recognition was the last contextual finding. Rewarding work and insufficient wages arose as important issues related to professional recognition for the studied nurses. Professional recognition was pointed out as an important element of a professional practice model [211]. Hoffart and Woods claimed that recognition could be mediated by salary, by professional development opportunities, such as supporting research initiatives and publication, and by differentiating staff according to their roles

and titles. A difference with the Hoffart and Woods idea of professional recognition is that Argentinian participants felt their work was acknowledged by patients, which made them feel rewarded and valued. Participants also reported they wished to be well paid having one job. This suggests they didn't feel properly rewarded and recognized. Turnover was also reported as an issue in the studied setting. Those nurses that chose to leave the unit may not envision professional development opportunities. Additionally, the World Federation of Critical Care Nurses has stated that intensive care nurses remuneration levels should be competitive with similar professions and should be scaled in order to reward and retain qualified staff [48, 87]. Thus, Argentinian participant's contribution may not be perceived as other professions resulting in a less competitive wage. However, these assumptions require more evidence of how other professions are recognized for an adequate comparison.

Another point about professional recognition as perceived by participants was related to their professional authority and image. During the fieldwork it was observed that patients' relatives were called and invited to leave the unit by security guards during visiting time. When asked nurses said patient's family respected more the security guards than nurses. In addition, a participant said nurses didn't behave as professionals. It is not possible to ascertain what kind of perceptions regarding nurses patient's relatives had. May be patients' relatives seemed to respect the guards because they were afraid of them. So, what seemed to be respect from the nurses perspective could be fear from the relatives' point of view. Yet, these assumptions lack of supporting evidence. On the other hand, it has been suggested that nursing workforce development in Argentina hasn't been supported [14]; this may contribute to the poor social recognition. Additionally, literature has suggested that the more qualified the nurse the more authority is exercised in clinical setting [212]. The lack of formal education may make nurses difficult to empower and view themselves as professionals. However, this finding may be insufficient to support these assumptions. Further studies are necessary to examine factors related to the context and culture that influence intensive care nursing practice in Argentina.

LIMITATIONS

This ethnography of two private ICUs in Ciudad de Buenos Aires provides a beginning understanding of intensive care nursing practice in a particular Argentinian setting. While this study provides a conceptual understanding, many limitations have to be acknowledged.

First, 12 intensive care nurses were purposively invited to participate in the private ICU setting. This was the first nursing study undertaken in those units. Consequently, there were polar reactions by the staff towards the study. Some staff were keen, collaborative and enthusiastic to participate; but there were a few staff that were reluctant and didn't participate. While attempts were made to ensure diversity of experiences in this sample, it is possible that recruiting other nurses may have influenced the findings. However, the participants were able to provide in depth descriptions and there was variety in responses. Only intensive care nurses who had worked a year or more in the setting were recruited. Spradley [111] suggests to avoid participants that potentially may answer what the researcher want to hear. It is not possible to figure out if the enthusiasm or support of the study made participants behave in a favorable way to the study. However, time for observation and interview was schedule for a period of three months, which may meant that it was likely difficult to sustain a rehearsed behavior for such a period of time.

Second, the studied setting belonged to the private Argentinian health care system, a familiar environment for the researcher. Spradley notes that being familiar with the scene has the potential to miss some information. To reduce the potential of missing information a combination of data collection strategies were undertaken. Being familiar with the culture; in the case of this study, helped the researcher to perform a detailed observation about the participant's practices. Besides, being familiar also helped to empathize with the field [112] and gain a rapport with participants. Also, writing of field notes and reflexions helped the researcher gain and etic understanding of taken for granted experiences.

Third, the study was undertaken in a Spanish speaking setting. Data was collected in English and Spanish, and findings are presented in English. Translation may blur the

actual meanings as perceived by natives. Although a carefully process of keeping quotes in both languages, and a tidy process of translation was undertaken, they may not have the same meaning as in the original language.

Lastly, it is possible that a more experience qualitative researcher with more time to undertake additional analysis might have uncovered further understanding. However, a triangulated approach and regular meetings with my supervisor was undertaken during the analysis to interrogate the emerging categories and themes.

IMPLICATIONS FOR PRACTICE AND RECOMMENDATIONS

This study has identified key issues for understanding intensive care nursing practice in Argentina. Although limited to ICU setting of a big urban area of the private health care sector, these findings can help to gain insight of intensive care nursing practices across the Argentinian health care system. The implications and recommendations are the foci of this section.

There are only a handful of Argentinian postgraduate accredited higher education programs in nursing specialist level; and none on intensive care nursing [11]. This study can inform the principles of the curriculum of future intensive care nursing specialty education at the university level. It is recommended the curriculum should emphasize the use of research for providing an evidence based care. Additionally curriculum should also focus on patient assessment, recognition of early signs of clinical deterioration, response to deteriorating conditions and caring behavior. To do so, education institutions will have to ensure both students and teachers have access the body of publish research. International literature is English dominated; therefore a level of English literacy is needed for understanding literature. Further, training of ICU specialty nursing students on non-technical skills such as situation awareness, decision making, communication, team working, leadership, managing stress, coping with fatigue should be considered as key component of the curriculum. These non-technical skills may be as important for patient safety as technical skills.

In clinical settings there is a bundle of actions that may potentially improve the provision of intensive care. First, it is recommended the implementation of in-service training programs at the unit level. These programs should focus on identification and response to clinical deterioration, use of nursing research for the provision of care, acquiring nontechnical skills, team performing and caring behavior. This would likely require an additional staff position. The strategies of implementation may change according to the staff feedback. Staff feedback and involvement should be paramount in any education endeavor. Second, in order to keep competency and encourage the skills transfer from senior to junior staff, formal mentoring/preceptorship/tutorship programs could be implemented. For instance, this structure could be used to put in practice an evidence based protocol, or the introduction of new therapeutic approach, or equipment. Third, a collaborative work with other professional groups should be encouraged. Aitken et al. have suggested that the implementation of nursing rounds in intensive care improve communication with other team members [213]. Further, these researchers claim that nursing rounds have the potential to improve the worklife satisfaction and the perception of the practice environment. Nursing rounds can be implemented as one way for nurses gain confidence for further participation in multidisciplinary rounds. In addition, sharing formal education meetings with other professional groups, mutual support and consultation can promote collaborative attitude in the provision of care. Fourth, the core findings of this study can be used as a minimum competence framework for staff development purposes. Finally, if unit leaders either nurse or physicians can formally recognize good nursing care nurses will likely feel recognized. This intervention has no cost but can be rewarding for the staff and help to build a collaborative and inviting environment.

Further, nurse managers, recruitment agencies, human resource departments and other interested parties can use this evidence for recruitment purposes. If recruiters have an evidence based understanding of what nurses do in intensive care; they will be able to provide to potential applicants a realistic evidence based description of what is required to do in their job. Thus, they may be more successful in recruiting nurses with more suitable profiles to their environments.

Intensive care nursing organizations from westernized countries have developed frameworks for credentialing and certification of competence in the specialty [35, 78,

89]. Although not compulsory, certification of competence is expected for specialty level [86]. Those countries have developed their frameworks based on the local evidence that support their practice in those particular contexts. Although more evidence of Argentinian intensive care nursing practice is necessary for this endeavor, this study provides a preliminary framework to conceptualize Argentinian intensive care nursing competencies. This conceptualization has the potential to inform future credentialing process in intensive care nursing specialty in Argentina.

Lastly, this study provides understanding of intensive care nursing practice in the private sector of Argentinian health care system. Although these findings can help to understand intensive care practice across the system, more research in public and social security ICUs is recommended to fully inform education and clinical practice. Additionally, these findings made evident many questions for further inquiry. Some of these questions are: What factors of the organization and culture influence nursing collaborative and teamwork practice? What skills and competence do nurses need to perform collaboratively? What factor or strategies can help ICU nurses to manage stress and cope with fatigue? To what extent does performance influence patients' outcomes? What studies can be used to improve nurses' performance? Clearly there is room for further inquiry.

CONCLUSION

The current study sought to identify the intensive care nursing practices in two private ICUs in Buenos Aires. Specifically, this study aimed to gain understanding of knowledge, skills and attitudes. Twelve ICU nurses with wide range of experience in the studied settings participated in the study. A combination of ethnographic data collection strategies and thematic analyses uncovered five themes that reflect the core of intensive care nursing practices and one theme related to the context. The main themes were gaining competence; assessing, anticipating deterioration, acting; collaborating to provide care; individualizing care; and caring.

Argentinian participants acquired their competence through a journey of learning. The journey provide them a 'know what' and a 'know how', that is their knowledge and

skills. ICU nurses learn by repetitive exposure to clinical situations, from their peers and other practitioners. The knowledge and skills they acquired change and mute permanently. They have understanding that lifelong learning was vital to perform in intensive care. Experience helped nurses to perform intuitively. A significant skill was the ability of nurses to assess, anticipate deterioration and act in an overlap fashion. Assessment allowed nurses to identify signs of deterioration. Their aim was to identify signs of clinical deterioration in a timely manner. Patient clinical condition was a driver of nursing actions. Nurses were able to perform collaboratively. They understood their contribution to the team in terms of proper communication and understanding.

Caring attitudes were also uncovered. Participants made efforts to identify and meet patient particular needs. They tried to recognize the patient as whole and connect with the patient. Nurses could also provide a compassionate care. They could understand patient suffer, even though it was difficult for them. They empathized with the patient. Sometimes they couldn't be compassionate; as a result detachment was evident. However they acknowledged their difficulty to balance detachment and compassion. Finally, intensive care nursing practice was influenced by the context and by some nurses' personal characteristics.

Understanding intensive care nursing practice is important for many reasons. First, it may inform future postgraduate education in the specialty of intensive care nursing. Second, it may guide in-service training and staff development. Third, it may assist managers in recruitment intensive care nurses. Lastly, it may serve as a foundation for future certification processes. While these findings provide a beginning understanding of intensive care nursing practices in Argentina; they highlight many issues for further inquiry. Additionally, this study provides a view of the gap between intensive care nursing practice in Argentina and its counterpart in developed countries. Thus, it also helps to envision future developments of intensive care nursing as discipline in Argentina.

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APPENDIX 1. EXEMPLARS OF SOME STUDIED CONTEMPORARY NURSING PRACTICES.

The purpose of this Appendix is to provide understanding of the complexity of some contemporary nursing practices, especially those practices based on non-technical skills such as decision making and psychosocial aspects of care. Contemporary nursing literature is inundated of research on individual practices. Some exemplars related to pain management, end of life care, care of patient's privacy, diaries and decision making are presented here. While these practices may be undertaken by nurses in a variety of clinical setting, for the most part, the research has focused on the understanding how the unique intensive care setting influences the enactment of these practices. These studies were conducted in some European countries, USA, Australia and Taiwan. Table 4 summarises these studies.

Pain management is one specific practice that has been studied in ICU context and reflects the complexity among assessment and decision making actions. Treatments, invasive procedures and immobility are some common causes of pain. A Taiwanese study, reported that pain management varies according to the level of nursing education. Nurses find challenging to overcome barriers to improve it; when the practice depends on a collaborative approach [214].

Another study in the European context, described the attitudes and beliefs of nurses towards end of life care [215]. End of life care is a common intensive care practice, with a great variation according to the country and culture. The Latour et al.'s [215] study reflects these complexities. Another example in Europe is the nursing involvement in caring patients' relatives in intensive care. Although family needs are acknowledge by nurses, this knowledge is not translated into practice. [216]

In USA, a study, describes how nurses manage privacy predicaments [217]. The study presents a clear example of how nurses perform simultaneous complex activities. The care of the person privacy is overlap with routine duties. This study shows an example of how nurses manage sensible information as part of their daily practice.

In the Scandinavian countries, patient diaries have become a common practice [218, 219]. These Scandinavian studies, describe the evolution of an intensive care nursing practice that is slowly expanding in Northern Europe. Diaries are records, made by intensive care nurses, of patient condition while in intensive care but not related to clinical and technical information. These diaries are written for patients to help them to understand their condition, and help to recovery.

Finally, in a couple of European countries, Australia and Canada studies on decision making were undertaken. The first study undertook in Australia [170] aimed to explore the decision making of expert nurses on sedation practices before and after the implementation of a protocol. The study reported that nurses used more attributes related to sedation issues after the intervention. Nurses also recognized particular patient needs. The authors acknowledge it was not possible to identify a linear decision making process in terms of sedations practices, because nurses were working in multiple components of their practices, they were shifting from one priority to another. Findings of a second study on decision making published by Hoffman et al. [220] demonstrated the experienced nurses collected and examined more cues than novice nurses. They perceived and collected the cues if clinical situation using the short term memory, then they processed the cues using their knowledge in the long term memory. These two studies, provided understanding of intensive care nurse decision making process in their natural environment. The last study to introduce here is a multinational research undertaken in Dutch, Canada, UK and Australia. [171] This study examined nurses ability to assess the risk of patient deterioration based on the nurses judgement of computer case scenarios. Although the more experienced nurses, synthetized more information and were consistent, their intuitive reasoning didn't allow them to take an accurate decisions. Authors claimed that nurses may be applying strong but wrong decision making strategies.

Table 4. Summary of studies of some specific contemporary nursing practices

Author Country	Focus	Setting and sample	Data collection	Main findings
Aitken et al. [170] Australia	Decision making	7 expert ICU nurses. Unknown number of ICU beds and hospital characteristics.	Think aloud verbal protocol and for two hours of care and interviews, pre- and post-implementation of a sedation guideline.	Decision making processes that nurses use when assessing and managing sedation • Attributes and concepts most frequently used related to sedation and sedatives, anxiety and agitation, pain and comfort, neurological and respiratory status and communication. • On average each participant raised 48 attributes related to sedation assessment and management in the preintervention phase and 57 attributes postintervention. • These attributes related to assessment (pre, 58%; post, 65%), physiology (pre, 10%; post, 9%) and treatment (pre, 31%; post, 26%) aspects of care.
Buckley and Andrews [216] Ireland	Knowledge of families' needs	48 ICU nurses working in a 370 bedded University Teaching Hospital	Self-administered questionnaire.	Nurses' knowledge of critical care family needs • The majority of respondents scored above 70% in their knowledge of the needs of family members, indicating an excellent knowledge of those needs but only 4.2% were able to rank family needs in order of importance. • Whilst nurses reported very good practices in relation to caring for relatives there was no significant statistical relationship found between knowledge scores and self-reported practice indicating that whilst they had the knowledge it is not necessarily translated into clinical practice. • 71.4% of respondents claimed their knowledge came from clinical work in ICU and continuing education courses.
Egerod et al.[218] Denmark, Norway and Sweden	Use of patient diaries	114 ICU nurses from Denmark, Norway and Sweden.	Secondary data analysis of interviews.	Development of patient diaries practice in Scandinavia • Diaries were introduced concurrently in the three Scandinavian countries as a grass-roots initiative by mutual cross-national inspiration. • The concept has evolved from a pragmatic practice to an evidence-based domain of inquiry propelled by academically prepared nurses. • The diary was conceptualized as: a) a therapeutic instrument, b) an act of caring, c) an expression of empathy, and d) a hybrid of the above. • Diaries have the potential to fulfil the existential needs of patients who struggle to make sense of their experiences and construct their own illness narrative.
Gjengedal et al.[219] Norway	Use of patient diaries	All 70 Norwegian ICUs were contacted. Thirty units consented to participate. 30 experienced intensive care nurses were interviewed.	Qualitative descriptive design. Semi-structured telephone interviews.	Nurses writing patient diaries while patient is ventilated • Most of the units have some kind of guidelines for diaries. • Diaries serve dual purposes; one of caring and another of therapy. • Some nurses stress the importance of the diary as a basis for follow-up dialogues. • The writing frequency varies, and the units that reported high activity provided follow-up programs in addition to diary writing.

Table 4. Summary of studies of some specific contemporary nursing practices Continue

Author Country	Focus	Setting and sample	Data collection	Main findings
Hoffman et al. [220] Australia	Decision making	4 novice and 4 expert nurses caring for Abdominal Aortic Surgery of a regional hospital.	Think aloud protocol protocols and interview.	Novice and expert cue collection during decision making Expert nurses collected a wider range of cues than novice nurses. They also clustered more cues together to identify patient status when making decisions and they were more proactive in collecting relevant cues and anticipating problems than novice nurses.
Latour et al. [215] Europe	End of life care	419 delegates attending and international Conference were approached, 164 participated	Survey.	Nurses' attitudes and beliefs towards end-of-life care • The majority of respondents indicated direct involvement in end of life patient care. 73.4% reported active involvement in decision-making process. 78.6% expressed commitment to family involvement in end of life decisions, however only 59.3% of the participants said that this was routinely undertaken. • In decisions to withdraw or withhold therapy, 65% would decrease the flow of inspired oxygen, 98.8% provide continuous pain relief and 91.3% endorsed open visiting.
Petronio and Sargent [217] USA	Privacy	11 ICU, emergency and high dependency nurses of a large urban medical center in Northeast.	Semi-structured interview.	Nurses privacy management of disclosure predicaments • Nurses regulate patient privacy in the role of stakeholder confidants. • Disclosure predicaments occur in three different contexts: during the course of nurses' professional routine; when the nurses created safe terminals or havens for patients to talk; and when family matters became an inseparable part of caring for the patient. The results indicate that there are several specific strategies that nurses use to manage disclosure predicaments they encounter.
Thompson et al. [171] Dutch, UK, Canada and Australia	Risk and decision making	245 registered nurses in surgical, medical, intensive / therapy or high dependency units.	Double system judgment analysis of 50 computer-presented case scenarios.	Nurses risk assessment • Nurses risk assessments vary considerably due to the weighting information. Time and protocol were given more weighting than the clinical information. • Nurses synthetized information in non-linear ways that contributed little to decisional accuracy. • Critical care experience was associated with the assessment of risk but not with the decision to intervene.
Wang and Tsai [214] Taiwan	Pain management	370 intensive care nurses from 16 hospitals.	Questionnaires on nurses' knowledge about pain management, perceived barriers to pain management.	Knowledge and barriers for pain management • Poor knowledge of pain management, the top barrier to managing pain was 'giving proper pain prescription needs doctor's approval; • Knowledge of pain management was significantly and negatively related to perceived barriers to pain management. Knowledge also differed significantly by nurses' education level, clinical competence level (nursing ladder) and hospital accreditation category.

APPENDIX 2. OBSERVATION GUIDE

Observation sheet		
Date .... Hospital .... Unit.......................... Shift		
Bedside	Non beside	Observer comments and insights
Explanation provided during the request of consent: Bedside activities: Nurses patient/family interaction, nurses' intervention with equipment, all activities in the unit of the patient. Physical care. Interaction with other health care providers. Non bedside: Administrative activities, communication with peers and other health care providers, interaction with management actors,		

Example of observation notes in field

Example of observation data transcribed

P	Bedside	Non bedside	Insights/short interviews
x	1. Change patient sheets with the assistance of a colleague 2. Drainage control, fluid balance registry 3. Explains the patient the presence the endotracheal tube 4. Administration of medicines. 5. Increase of insulin infusion. 6. Vital signs and monitoring of ventilator status and fluid balance 7. Handover (pase de guardia) he talk about patient status, drainages and IV lines	8. Talk to the physician on charge regarding the high insulin requirement. 9. Comment: he values to work with experienced nurses, (the ICU was remodeled) while in the old ICU nurses had to take equipment from one side to another, this prevented to manage the emergency, now with the new ICU this is not happening. 10. Register patient status.	• I ask him about why he increased insulin infusion, he says glycemic values remains high and it was necessary to do a different treatment, listen short interview. • Central monitoring alarms sound all the time.
x	1. Patient hygiene, skin care, body care 2. Glucose control and antibiotics infusion 3. Interact with family, explains that the ventilated patient is not sedated but with pain relief infusion, he also says they can touch the patient ant talk to him. 4. Assist family 5. Prepares patient table for tea time (with a non-ventilated patient), assist the patient to gain an upright position 6. Administration of IV medicines 7. He assist another patient to change the position, explains the procedure before moving 8. Nurses talked about their past while bathing a ventilated patient 9. Glucose control 10. Manage IV lines and devices, central lines insertion site healing 11. Mouth care with chlorhexidine 12. A colleague talk about ventilator modes while providing skin care to a ventilated patient	13. Dialogue with colleagues, ask for equipment repair 14. Ask for hot water for a tea. 15. Wash their hands 16. Put in order the patient unit 17. He talk to the anesthesiologist about the patient, ventilator status, urinary output, fluid balance, glucose level, and ask him to let the surgeon know that patient's family is available, (his patient is going to have a surgery) and let the physician on charge the anesthesiologist came. 18. Assist a colleague in providing body care (bath) and changing sheets 19. Nursing records, registry of fluid balance, documenting patient status and changes on the shift 20. Talk about politicians and policies with colleagues 21. Handover (pase de guardia)	• Doctors are in round discussing patient's conditions and treatments, nurses do not participate of the discussion. Doctors are talking about the articles (published in English) they read related to patient clinical condition. Nurses do not approach even when the patients under their care is the focus of the discussion. • Patient's family is invited to the unit and asked to leave the unit by the security guard • HME was pediatric, everybody was using for adult, I've asked why this one was bigger than the one used the day before, he says he didn't know but he ask to respiratory therapist, what he did. (RT says it was used for pediatrics because of a mistake while buying) • Never sound a pump alarm

P: Participant

X: participant pseudonym initial

APPENDIX 3. OBSERVATION SCHEDULE

Diciembre Hospital 1

lu	ma	mi	ju	vi	sa	do
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

Enero de 2011 – Hospital 1

lu	ma	mi	ju	vi	sa	do
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

Febrero de 2011 – Hospital 2

lu	ma	mi	ju	vi	sa	do
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28						

Marzo de 2011 – Hospital 2

lu	ma	mi	ju	vi	sa	do
28	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

TT	Observación turno tarde
TN	Observación turno noche
SDF	Observación turno fines de semana y feriados

APPENDIX 4. INTERVIEW GUIDE:

Interview guide:

Greeting, acknowledgment.

Remind the participant, he/she can stop the interview at any time. Confirm the consent.

Demographic and background collected from nurses to be interviewed:

- Demographic data.

- Level of professional education.

- Number of years working in critical o emergency care.

- Number or years working in the unit.

Open questions

- What do you think ICU nurses do when caring for a critical care patient?

- What skills or abilities do you think nurses need to perform in intensive care?

- What qualities do you think a nurse should have to work in the unit?

- Would you explain what nurses do in intensive care? Or what do you do?

- What else do you think is necessary to provide a good care in intensive care? Or to be a good intensive care nurse?

- Would you please talk about an event you consider important in your professional life?

- Is there something else you would like to share around the issue we've been talking to?

When the interviewee asked for clarification, the following expressions were used:

- I'm interested in your personal opinion around …

- Your point of view about the doing in intensive care is very important

- Your insights about …… are important

- How would you describe, on your own words what nurses do in intensive care?

- What do you think is the core of what intensive care nurses do.

- I like your idea about that, would you explain a little more what you have said

- During the course of this dialogue, was there any opinion or idea you wanted to express? I mean related to what we were talking to?

R: primero te quiero agradecer por dejar que te observe, y por esta entrevista ... también ... explicación de las preguntas que viene

I: cuantos anos tenes, como es tu grupo familiar

I: tengo 44 anos, en mi familia somos 5, mi senora y 3 hijos (14, 10 y 8 años)

R: contame donde estudiaste enfermería

I: estudie enfermería en dos partes, mi primera etapa fue en la escuela de enfermería que dependía de la Universidad de la Plata, en una sede que estaba en Berazategui estudie casi dos años, y mi ultimo año lo hice en la escuela de enfermería del hospital Finoquieto en Avellaneda y después hice la licenciatura en la Universidad de Lomas ...

R: y en que año te recibiste de enfermero y de licenciado

I: de enfermero ... no me acuerdo ... 94, y de licenciado 98... 99 después de varios años de hacer enfermería empecé la licenciatura y por unas cuestiones técnico administrativas deje ... y ... pensando que ya había pasado el lapso para rendir las materias, lo di por perdido hasta que me encontré con una compañera en el subte charlamos y me dijo que todavía estaba a tiempo ... había calculado mal yo .. el tiempo... me dice te queda una para rendir las materias ... me presente .. rendí.. dí la tesis todo

R: cuantos anos hace que trabajas en terapia intensiva y en que lugares has trabajado

I: y en salud ya van ha ser ... 16 anos ... la mayor parte del tiempo fue en área critica

R: y en que instituciones has trabajado ...

I: y la primera institución fue un geriátrico-psiquiátrico un mes trabaje ahí... era porque necesitaba trabajar .... después trabaje en la terapia del Anchorena unos meses .. después trabaje en el Santorio Bernal en unidad coronaria y terapia intensiva dos años ... en el hospital Antartida casi dos anos alli estuve en unidad coronaria mas que nada ... y después estuve cubriendo vacaciones en el Hospital Italiano... Sanatorio Mitre ... y ya después entre al hospital de Clínicas ... allí estuve un ano y medio y casi al mismo tiempo estuve trabajando aca en Bazterrica y ya van 13 .. 14 años ... y hace cinco anos va ha ser en semana santa que estoy trabajando en el Hospital Argerich de la Boca ...

R: Siempre tuviste doble empleo...

I: no mi primer doble empleo fue el Hospital de Clínicas y Bazterrica .. la idea era pagar las deudas y dejar Bazterrica .. y seguir con el hospital el tema del sueldo y las renovaciones de contrato en el Clínicas era muy irregular .. bajo sueldo, entonces opte por la clínica ... y ahora también había buscado el hospital y la idea era dejar la clínica lo mas rápido que se pueda ... pero después surgieron prestamos, arreglos de casa ...

R: la vida ...

I: si .. pero dios mediante a mediados de año dejo …. y me quedo con el hospital...

I: interviewee

R: researcher

Dark shadows are to protect sensitive data.

APPENDIX 6. REFLECTIVE JOURNAL SAMPLES.

I do not know what I should reflect on. I'll just think about some questions I have. Doubts to clarify field work. Central monitoring alarms sound all the time.

(December, 2010)

Doctors are doing discussing patients conditions and treatments, nurses do not participate of the discussion. He (the nurse) makes comments about his personal life while working with the unconscious patient.

(January 2011)

I wonder why a nurse is angry with a patient when the patient calls many times.
It seems to be a kind or role distortion?

(February 2011)

I think I have to think in my aims, and I still do not know what reflexing mean.

(January 2011)

I'm thinking about …. if the nurses are protecting themselves with a kind of detachment behavior, it must difficult to work so much and be well, it seems nurses are trying to cope with their own life.

(February 14, 2011)

They were very fluent in the emergency today, they seem to know what they do, the handover was fluent as well, and they seem to anticipate?

(January 11, 2011)

I'm not sure about my feelings today, it was a long night, I was difficult to observe, I have lost my endurance for working during the night. The interview was so touching, I could see myself working such a long hours, I'm doing my best to think in an objective way. I still can't understand how this guy works so much; I think they do for his family.

(January 22, 2011)

APPENDIX 7. LETTERS OF REQUEST AND APPROVAL.

Buenos Aires, 6 de Octubre de 2010.

Sr Director

Comité de Ética e Investigación

Clínicas Bazterrica y Santa Isabel

De mi mayor consideración

Solicito a Ud. tenga a bien considerar la presente propuesta. Con motivo de mi Candidatura de Maestría en Educación en la Universidad de San Andrés, he desarrollado una propuesta de investigación "Prácticas de enfermería en cuidados críticos en dos unidades de cuidado intensivo privadas de la Ciudad de Buenos Aires" en el marco de la Tesis de Maestría en Educación. Las unidades de cuidado intensivo de las Clínicas Bazterrica y Santa Isabel ofrecen un escenario ideal para este estudio. Por tal motivo le ruego tenga a bien considerar la factibilidad del mismo.

A fin de poner a consideración suya y del Comité de Ética e Investigación, adjunto la siguiente documentación:

1. Protocolo de investigación conteniendo:
- marco teórico y estado del arte,
- metodología e instrumentos de recolección de datos,
- solicitud de consentimiento a participantes.
2. Carta del Director de la Escuela de Educación de la Universidad de San Andrés.
3. Constancia de alumno regular de la misma casa de estudios.

Quedando a disposición para cualquier requerimiento a este respecto, lo saludo muy atentamente.

Lic. Laura Alberto
Especialista en Educación
Candidato de Maestría, Universidad de San Andrés
Becaria George & Jorge Born, Fundación Bunge y Born

Buenos Aires, 01 de Noviembre de 2010.

Lic. Lilia Bracuto
Jefe Departamento de Enfermería
Clínica Bazterrica

De mi mayor consideración

Solicito a Ud. tenga a bien considerar la presente propuesta. Con motivo de mi Candidatura de Maestría en Educación en la Universidad de San Andrés, he desarrollado una propuesta de investigación "Prácticas de enfermería en cuidados críticos en dos unidades de cuidado intensivo privadas de la Ciudad de Buenos Aires" en el marco de la Tesis de Maestría en Educación. La unidad de cuidado intensivo de la Clínica Bazterrica ofrece un escenario ideal para la primera parte de este estudio. Por tal motivo le ruego tenga a bien considerar la factibilidad del mismo.

A fin de poner a consideración adjunto la siguiente documentación:

1.   Protocolo de investigación conteniendo:

-       marco teórico y estado del arte,

-       metodología e instrumentos de recolección de datos,

-       solicitud de consentimiento a participantes.

2.   Carta del Director de la Escuela de Educación de la Universidad de San Andrés (Dirigida al Director del Comité de Ética).

3.   Constancia de alumno regular de la misma casa de estudios.

Quedando a disposición para cualquier requerimiento a este respecto, la saludo muy atentamente.

Lic. Laura Alberto
Especialista en Educación
Candidato de Maestría, Universidad de San Andrés
Becaria George & Jorge Born, Fundación Bunge y Born
Email: lauramalbert@hotmail.com
Teléfono: 154 915 8403

Buenos Aires, 20 de Enero de 2011.

Lic. Walter Piceda
Jefe de Departamento de Enfermería
Clínica Santa Isabel

De mi mayor consideración

Solicito a Ud. tenga a bien considerar la presente propuesta. Con motivo de mi Candidatura de Maestría en Educación en la Universidad de San Andrés, he desarrollado una propuesta de investigación "Prácticas de enfermería en cuidados críticos en dos unidades de cuidado intensivo privadas de la Ciudad de Buenos Aires" en el marco de la Tesis de Maestría en Educación. La unidad de cuidado intensivo de la Clínica Santa Isabel ofrece un escenario ideal para la segunda parte de este estudio. La primera parte se desarrolla en este momento en la Clínica Bazterrica. Por tal motivo, le ruego tenga a bien considerar la factibilidad del mismo.

A fin de poner a consideración adjunto la siguiente documentación:

1.   Protocolo de investigación conteniendo:

-       marco teórico y estado del arte,

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3.   Constancia de alumno regular de la misma casa de estudios.

Quedando a disposición para cualquier requerimiento a este respecto, lo saludo muy atentamente.

Lic. Laura Alberto
Especialista en Educación
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Ethics approval letter.

Lic. Laura Alberto

Especialista en Educación

Candidato de Maestría, Universidad de San Andrés

Ref.: Propuesta de investigación "Prácticas de enfermería en cuidados críticos en dos unidades de cuidado intensivo privadas de la Ciudad de Buenos Aires".

La presente tiene por objetivo informarle que las autoridades de las Clínicas Bazterrica y Santa Isabel han recibido con agrado la propuesta de investigación *"Prácticas de enfermería en cuidados críticos en dos unidades de cuidado intensivo privadas de la Ciudad de Buenos Aires"* y que se ha decidido autorizar la realización de la investigación, dado que la propuesta considera los resguardos éticos requeridos.

La institución enfatiza que la investigación puede hacerse siempre y cuando se guarde la confidencialidad de la información sensible y el anonimato de los participantes y de las instituciones en todos los momentos del proceso investigativo, así como esta establecido en el protocolo propuesto.

También es intención de las autoridades conocer el informe final previo a su publicación.

Sin otro particular, la saludamos muy atentamente.

Dr Fernando PALIZAS
MN 38384
Director UTI
Clinicas: Bazterrica
S. Isabel

APPENDIX 8. SAMPLES OF FIELD NOTES, ENTERING THE FIELD.

Es mi primer día de entrada al campo de investigación, hubo una mezcla de sensaciones y de preguntas hacia mi persona, de donde sos, de donde venís que haces.

En esta primera aproximación vi la recepción de un paciente, compartí la merienda con ellos, contaron y compartieron conmigo expresiones intimas de su vida personal, las dificultades por el doble empleo, poder articular la vida familiar y la vida profesional, la dificultad para lograr momentos de disfrute.

Pude observar el horario de visitas, a la familia, el medico informa del estado del paciente. La familia pregunta sobre el estado del paciente, los dispositivos, los ruidos y monitores y los cambios que pudieron observar desde la última que vieron a su familiar enfermo.

Me presente con todos. Me presenté con todos, fueron muy amables al invitarme al te.

<div align="right">Diciembre 20, 2010</div>

Estoy pensando después de haber salido de la clínica que mi entrada al campo es como el ingreso de un extranjero al que es preciso preguntar una información básica, además del nombre, de donde venís, como si fuera necesaria es información para dejarte entrar y aceptar tu presencia a los demás. Parece un interrogatorio.

Después de esta presentación vino la invitación de un café y un mate, ese mate que se comparte en un momento mas intimo, personal y entre amigos. Rescato de este primer día el haberme ubicado, creo que es posible hacer esto.

<div align="right">Diciembre 21, 2010</div>

My first day in the field work, nurses were busy, at the beginning it was not that easy, I introduced myself. Nurses were providing body care to all the patients, they were organizing their activities. Physicians were doing their medical rounds. There were no enough time to explain my role; I just made a comment saying I was a stranger, if they wanted to ask me I would respond the questions. They asked me personal questions, marital status, aims of the research, etc.

<div align="right">December 26, 2010</div>

APPENDIX 9. DRAFT OF EXAMPLES OF CODING, CATEGORIZING AND DEFINITION OF THEMES.

Piece of interview answer (quotes)	Codes	category	Theme
Gaining competence			
en principio es tener conocimiento en si de las patologías .. de todo el manejo del equipamiento digamos, creo que eso es fundamental en el enfermero de terapia intensiva	To know the disease and management of equipment	gaining knowledge	There is a clear idea about the need to
.. hay momentos en que me costaba ... el paciente ventilado ... hacia el dibujos de los ventiladores, del cateter de Swan Ganz en mi casa memorizaba esto va asi, asi ... (...) yo sentia que me faltaba, me faltaba ... y eso es lo que decia voy ha hacer cursos, voy ha hacer cursos ... pero igual, haces los cursos lo implementas e igual te sigue faltando .. a veces uno nunca termina de aprender..	Struggling with ventilators and central catheters Studying doing tools/draws of procedures and equipment	gaining knowledge	know the disease and equipment and a journey to achieve the knowledge. Some tools are used to figure it out when
a veces también tenemos cosas que .... (...) uno mismo va aprendiendo .. a mi me pasaba que muchas veces tenia que colocar salbutamol por la aerocámara y yo cuando le explicaba a alguien directamente agarra el aerosol y conectaba a la cámara y daba el puff,.... pero veía otras personas que había aprendido al lado mio también.. y saco de otro enfermero que lo removía... dije que bueno eso no lo enseño yo pero ella vio a alguien que lo hacia .. a tratar de que el aerosol este con su dosis homogénea ... por eso te decía que a veces uno aprende también, siempre estamos todos aprendiendo... preguntando al kinesiólogo a los médicos ...	Respiratory therapist and physician as a source of learning	gaining knowledge	struggling with equipment like ventilators. There is also awareness about knowing beyond the technique and a need to focus on non-technical aspects of
por ahi en muchas instituciones o aca mismo uno ve ... colegas como el que tiene mas tecnica o mas manejo de los aparatos es mejor enfermero ... a veces uno confunde el conocimiento con la tecnica ... para mi bueno ... es fundamental la actualizacion en diferentes enfoques	Technical knowledge is not knowledge, it is important education focus on other aspects of care beyond the technique	gaining knowledge	care.
Caring			
lo que yo hago .. como me gustaria a mi que me atiendan (...) que el paciente se sienta confortable, talvez porque tenga verguenza o no .. la edad, la situacion, congeniar con que tu otro colega... o el medico, decirle que estamos dando lo mejor, a veces me ha pasado o me pasa	Make the patient feel comfortable	Compassion	
no te digo de que siempre lo puedas hacer .. pero por lo menos tener conciencia de que si .. de que las personas que estan ahi no estan por gusto .. estan porque tuvieron un accidente en la vida que necesita pasar por esa situacion y ...	Be aware of the patient adversity	Compassion	

Piece of interview answer (quotes)	Codes	category	Theme
aca en esta cama habia una paciente .. traqueostomizada, (...) ya no tenia ganas de hacer nada por ella misma, vos venias y le hacias un peinado, insistias para que se siente y como que ella se miraba en un espejito que tenia y eso le levantaba el animo .. y esas son cosas en las que uno pone su granito de arena y cuando el paciente se va es gratificante	Patient recovery is rewarding Essential care (hair care, encourage mobilisation) to recovery	Helping patients to cope	
Assesing anticipating deteriosation acting			
(...) el enfermero de terapia intensiva para mi es fundamental (...) estamos las 24 hs a lado del paciente y uno detecta todo (...) las alteraciones de los pacientes y poder comunicar a su debido tiempo al medico y de esa manera poder resolverlas	Constant monitoring to identify alterations	Anticipating and assessing	
a mi me parece muy amplio el rol del enfermero en terapia intensiva ... como que todo el tiempo estas organizando .. estas programando que es lo que vas ha hacer ... tenes que trabajar con prioridades, no podes perderte en algo que no te sirva a vos ni al pacientes ... tenes que estar todo el tiempo organizando cual es la prioridad para dedicarte a eso y despues si te queda tiempo te dedicas a lo otro y al mismo tiempo haciendo prevencion porque vos tenes que ver cual es el riego potencial del paciente .. adelantarte a eso para que no llegue ... es una manera de prevenir complicaciones	Identify priorities and constant organization of activities for identifying potential patient risk	Assessing and anticipating	
bueno despues tener una gran capacidad de adaptacion, uno tiene que adaptarse al paciente a la familia, al grupo, al cambio en el paciente ... de repente esta bien y alos dos minutos esta chockado .. tenes que poder adaptarte continuamente a los cambios y despues te decia de la organizacion .. el enfermeor tiene que ser muy organizado muy prolijo ...	Ability to act in changing clinical sceneries	Assessing and anticipating	
el alerta .... bajan la frecuencia cardiaca y tienen saber que te va bajar la presion arterial o te aumenta la frecuencia ... hay muchos enfermeros que lamentablemente no manejan ... no saben que puede estar pasando ... (...) y lo elemental de un electrocardiograma saber leer lo minimo ... arrtimias ... para avisar que hay que ir hacer mientras en un paso una hipotension ir haciendo cosas hasta que venga el medico... o tener las cosas preparados para ir anticipandote	To act according to a clinical situation	Assessing and anticipating	

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APPENDIX 10. MEMOS DURING ANALYSIS

- I'm trying to separate the personal data from the data that answer my research questions.

- There is a noise data about the background of nurses. Nurses background is not part of your study.

- Initial coding is not easy. I'm still confused, I can't find patterns. Should I?

- It seems that there is something on competence, how nurses gain their competence. It seems that can be the first theme.

- I'm still confused.

- I still do not know if the essential care category is part of the gaining competence theme, because nurse's performance is a demonstration of a competency; but it can also be part of the theme assessing, anticipating, and performing theme. Nurses, assess and perform consequently.

- Assessing anticipating performing is a sequence of overlapped activities that are the core of the intensive care practice. I'm trying to describe separately.

- It appears to be a slight difference between the teamwork and collaborative work. While teamwork is referred as a group/team work, the collaborative work is identified as work with somebody else.

- There is a gap between the findings and the literature on competences in terms of the participation in decision making process. Participation is limited to getting information of the patient, not providing information to the team for future decision making. But I didn't study decision making.

- Nurses do not participate in medical rounds, I observed that doctors speak about papers published in English, how nurses will participate, what could be their contribution?

- I'm thinking that nurses do not participate because many issues, social, culture, and formal higher education!

- Fatigue influence patient safety. There might a potential to compromise patient safety … but how nurses can care for the critically ill if he/she can't cope with their own personal and family needs… I don't know if the literature covers this issue. I'll have a look.

- I'm trying to find a pattern in the contextual factors.

- I still don't know if nurse's personal traits should be part of the competency. I don't think so. Professional practice could be influenced by personal nursing issues. There might be too may. It is hard to find a pattern.

- I'm thinking that I don't have enough data form my assumptions on contextual issues. I should suggest it for future research.

- Individualizing care. Tech sets a conflict between what or who should the nurse focus on.

- I'm reflecting on the personal traits of nurses, it seems not being part of the core competency, although some publications include it. What should I do? On one side nurses personal characteristics seems to influence the practice.. but there social issues underlying the practice as well.. and I don't have data of social issues … On the other side, that could go on caring theme? Due to the influence in the caring attitude?

- What seems to be what … gaining competence, assessing/anticipating/acting, and collaborating to provide care are knowledge and skills, I can't say if they can be defined separately. I think it is an embedded knowledge and skill. Individualizing care and caring themes are attitudes, denotes the intention, the emotions underlying the caring actions.

APPENDIX 11. INFORMED CONSENT

Proyecto prácticas de enfermería en cuidados críticos 2010

Solicitud de consentimiento

A: _____(nombre del participante)

Usted ha sido seleccionado/a para participar en el proyecto 'Proyecto prácticas de enfermería en cuidados críticos 2010', parte de la tesis de maestría de la Lic. Laura Alberto, alumna de la Universidad de San Andrés. La presente investigación se realiza con la autorización de las autoridades de la institución y en cumplimiento de los principios éticos de la práctica de la investigación.

Por favor lea la siguiente información previa a dar su consentimiento.

Hay dos métodos de recolección de datos:

1. Observación: El investigador le pedirá observar su práctica por un periodo de aproximadamente 3 a 4 hs, dos a 3 veces. Durante este tiempo el investigador registrará sus observaciones tanto como sea posible sin involucrarse en el cuidado del paciente. Por favor actúe normalmente. El investigador no evalúa su práctica, sino que trata de capturar el rol especifico en el cuidado crítico. Al final de las observaciones el investigador le hará preguntas sobre determinadas situaciones para aclarar sus interpretaciones. El investigador podría también preguntarle información sobre la planificación del cuidado, políticas y procederes.

2. Entrevista: El investigador le pedirá una entrevista de 20 a 30 minutos que versará sobre lo que hace cuando cuida pacientes críticamente enfermos y le pedirá mínima información personal.

3. Confidencialidad: El investigador garantiza la confidencialidad de los datos personales, la información relacionada con su participación se presentará garantizando el anonimato, tanto en el tratamiento como en el análisis y publicación.

_____ (nombre del participante) he leído y comprendido el alcance de mi participación y el trato confidencial de la información relacionada a mi persona y práctica profesional. Elijo participar libremente y entiendo que puedo dejar de hacerlo en cualquier momento.

Nombre y apellido: _____

Firma: _____

Fecha: _____

Investigador: _____

Firma del investigador: _____