

Nurses' Lived Experience of Work Safety

**Factors that support and threaten nurses' safety
in their hospital work environment**

A Phenomenological Study

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Statement of authorship

This dissertation is submitted to the RCN Institute in part fulfilment of the MSc in Nursing and has been conducted and presented solely by myself. I have not made use of other people's work (published or otherwise) and presented it here without acknowledging the source of all such work.

April 2006

A handwritten signature in cursive script, reading 'Aðalbjörg J. Finnbogadóttir'.

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Abstract

This hermeneutic phenomenological study is designed to describe lived experience of nurses' safety in the work place; what factors support their safety and what factors threaten their safety. Its purpose is to examine nurses' safety in their work environment to gain an increased understanding of the phenomenon in order to add to the ongoing discussion of employees' and patients' safety in hospitals in Iceland. The study was carried out with eight participants, all of whom are RNs, working in four hospitals in Iceland and the data were collected by interviews. The interviews were tape recorded with the participant's permission and transcribed. The texts of the transcripts were analysed by using the thematic format described by van Manen (1990) trying to grasp the essential meaning of the participants' lived experience of workplace safety.

Two main themes emerged from the data analyses: 1) Support and threats in the work environment and 2) Trust and distrust. This first theme present how factors in the work environment, such as staffing, workload, work processes, work design and opportunity to stay professional nurse, affect the safety of the nurses. This theme contains three sub-themes for further expression of how the work conditions affect the lived experience of nurses' safety at work. There are several factors which are indicated by the participants who either support or threaten their safety in their work environment. The second theme gives information about how collaboration and trust between co-workers can support or threaten safety. It presents the relations nurses have with those they have to rely on, whether they are fellow nurses, physicians, nurse managers or one self. The main concepts in the relations are trust as a supportive factor to the safety of nurses' work environment and distrust as a threat.

If nurses feel their work environment is supportive to their safety, they feel secure and more likely to reach a professional status, as they will be able to deliver quality patient care. Conversely, if they feel their work environment threatens their safety, they become insecure and behave accordingly. It is more likely that nurses experience their work environment as being supportive where their knowledge, skills and experiences are appreciated and where they gain encouragement from nurse managers. On the other hand, if the nurses feel the work environment is not supportive, it is more likely that they will have difficulties in becoming professional nurses. As van Manen (1999) stated, 'you will become the space you are in.'

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1. Introduction

In this dissertation I will present a phenomenological study of nurses' safety in their own work environment. For the last decade or two, concerns relative to the safety of patients and staff in health care settings have been the major topic in the health care arena (Rowell, 2003). Health care settings worldwide have changed much in recent decades. Parallel to this development, extensive changes have also taken place in the work conditions of nurses including those of Icelandic nurses (Directorate of Health, 2002). High patient acuity levels, coupled with rapid admission and discharge cycles and a shortage of nurses, pose serious challenges for the delivery of safe and effective nursing care for hospitalised patients (Aiken et al., 1996). There is an emphasis on cost efficiency in the health care system, but heedless cutbacks may result in sacrificing safety to productivity (Page, 2004).

Increased concerns have been expressed as to the understaffing of nurses in hospitals and a growing shortage of nurses (Bloutin and Brent, 2000). In many places, nurses' perception is that hospitals are reducing nurse staffing to unsafe levels (Aiken et.al., 1996) and many nurses feel that their patients are in danger (Gordon, 1997). The Nursing Council of the largest hospital in Iceland expressed concerns over patient safety, as too few nurses were caring for too many hospitalised patients. In the opinion of the Nursing Council the level of nursing was inadequate in various parts of the hospital due to a shortage of nurses (Nursing Council of Landspítali University Hospital, 2005).

The International Council of Nurses (ICN) and The European Federation of Nurses Associations (EFN) have highlighted the importance that nurses and their professional associations take the initiative in promoting improved patient and employee safety in health care settings. In times of rapid and wide-ranging change in health care delivery it becomes imperative to make critical assessments of the work environment, conditions

and organization of health care services with a particular view to the safety of patients and employees. Patient safety is the prevention of harm to patients (Aspden et al., 2004). Nightingale was aware of her own moral duty, indeed the moral duty of all health care employees, when she said: 'The very first requirement in a Hospital is that it should do the sick no harm' (Nightingale, 1863, cited in Friesen et al., 2005). Nurses must uphold this requirement and fight to ensure that the safety of hospitalised patients is a priority at all times. An important step towards such a goal is to secure the safety of nurses who are the providers of patient care by creating healthy and safe working environments for nurses as well as other hospital employees.

The purpose of this study is to examine nurses' safety in their work environment to gain an increased understanding of the phenomenon in order to add to the ongoing discussion of employees' and patients' safety in hospitals in Iceland. The research question of this study is: 'What is the nurses' lived experience of their safety in the work environment; what factors support their safety and what factors threaten their safety?'

As a project manager at the Icelandic Nurses' Association (INA), I have become aware of a growing concern among nurses for the safety of patients and nurses' sense of increased probabilities of mistakes by health care employees, including nurses. The nurses believe the work environment may threaten their safety as professionals and feel increased pressure to face situations where it is difficult, or even impossible, for them be responsible for their work. Remarks concerning unsafe work conditions have multiplied, as have queries to the INA regarding nurses' rights and responsibilities towards their patients, for instance the maximum number of patients for whom a nurse may safely be accountable.

According to van Manen (1990) I will state my assumptions in order to reduce my own subjective or private feelings or expectations that would prevent me from coming to terms

with a phenomenon or experience as it is lived through. I am concerned about nurses' safety in the work environment and believe that their safety is the basis for patient safety. I also believe it is a duty of every organizational administrator and nurse manager to make every effort to secure the employees' safety in order to prevent them and their clients from any kind of physical and emotional harm. The same goes for the INA, as one of its principal functions is to promote health in the country by advancing quality nursing and serve as an advocate for nursing and nurses, and protect the professional interests and rights of its members.

The study results will have significance for patients, nurses and nurse manager as well as the INA where the findings of the study might provide a deeper insight and understanding of the workplace safety of nurses. The findings will also be an input into the INA's work on improving nurses' safety at the work place. It will hopefully be an input in to the discussion of safety and work conditions in hospitals and an improvement thereof.

For the purpose of the study the definition of 'Safety in work environment' is as follows: 'Safety in work environment is when conditions and/or circumstances in the work place do not create situations that may physically or emotionally harm employees'.

In Chapter 2, I will present some of the literature regarding safety in health care settings, especially those linked to hospitals, and patient safety as it has a correlation with nurses' safety in the work environment. In Chapter 3 and 4 I will discuss the research approach, the hermeneutic phenomenological paradigm as presented by Max van Manen, data collection methods and data analyses. In Chapter 5 the findings of the study will be presented and finally discussion and the conclusion of the findings along with implications will be present in Chapter 6. The findings will be presented as themes.

2. Literature review

In this chapter I will present some of the literature relevant to my topic. I will present literature regarding work conditions in hospitals such as staffing, workload and work hours as I did expect these factors to be among those which concern nurses' safety in their work environment. I will also look at literature regarding collaborative support and trust as the issue of trust and distrust became one of the outstanding findings of the present study.

2.1. Staffing

Nursing care is essential to providing health care in wide range of settings. Much attention has been paid to levels of nursing staffing and variables necessary to provide safe and effective health care. Studies show that shortage of nurses and reduced staffing in hospitals lower the quality of care. In particular, studies indicate that inpatient hospital nurse staffing is related to patient outcomes in both medical and surgical patients and that these relationships are stronger for registered nurses than for licensed practical nurses or nurses' aids (Buerhaus et al., 2002).

There is no general consensus in the literature as to what safe staffing means. Staffing levels are often related to key indicators such as mortality rates, thus introducing the element of patient safety (International Council of Nurses, 2006). There are few definitions that merge the concept of safe with staffing. One is however, the American Federation of Teachers definition: 'Safe staffing means that an appropriate number of staff, with a suitable mix of skill levels, is available at all times to ensure that patient care needs are met and that hazard-free working conditions are maintained' (American Federation of Teachers, 2006a).

2.2. Appropriate number of staff and skill mix

Appropriate staffing levels in hospitals and other health care facilities are crucial to maintain the highest level of safety and quality patient care. There is a great debate within health care settings as to what constitutes 'appropriate levels' and by whom they should determine (American Federation of Teachers, 2006b). Availability of nurses is a major determinant as to why outcomes differ among hospitalised patients (Clarke and Aiken, 2003). Exactly how nurses affect patient safety and outcomes needs to be established to ensure the need for adequate nursing staff. Patient surveillance is one of the key tasks in the nursing care of patients. Surveillance involves assessing patients frequently, attending to cues, and recognizing complications (Clarke and Aiken, 2003). Aschoff (2004) states that nurses are the hospitals' surveillance system as nurses detect most errors detected in hospitals, or about 85 per cent. Nurses are often the first to detect early signs of possible complications; their vigilance makes timely rescue responses more likely. The quality of nursing surveillance depends largely on nursing staff (Clarke and Aiken, 2003). To be able to monitor and evaluate a patient's condition, the nurses have to have a supportive work environment. A low nurse-patient ratio and a great proportion of RNs relative to other nursing personnel are both crucial to effective surveillance (Clarke and Aiken, 2003). In order to address patient safety hospitals have to focus on nurses, who are the majority of the health-care workforce and are in the position to provide the kind of surveillance and monitoring, as well as interventions that are critical to patient safety (Page, 2004).

Numerous studies have been conducted to describe the relationship between nurse staffing levels and clinical outcomes of patients at both hospital and unit levels. Most authors agree that results uncover a statistically significant relationship between staffing and outcomes, however, more evaluations are necessary (Heinz, 2004).

Aiken et al. (2002) conducted a study of the impact of nurse staffing levels on patient outcomes in 168 hospitals in Pennsylvania. After adjusting for patient and hospital

characteristics, the main results were that each additional patient per nurse was associated with a 7 percent increase in the likelihood of dying within 30 days of admission and a 7 per cent increase in the odds of failure-to-rescue. The findings also showed that in hospitals the difference from 4 to 6 patients per nurse would, respectively, be accompanied by a 14 per cent increase in mortality and the difference from 4 to 8 patients per nurse by a 31 per cent increase in mortality.

Needleman et al. (2002) using administrative data from 799 hospital in 11 states in the United States conducted an extensive analysis of more than 5 million hospital discharges of medical patients and more than 1 million surgical patients. The focus of the study was to examine the relationship between the amount of nursing care provided and patients' outcome. The rates of adverse events were examined as well as hours of nursing care per inpatient day, hospital length of stay for patients and the proportion of hours of nursing care provided by registered nurses (RNs), licensed practical nurses (LPNs) and nurses' aides. The findings of this study showed that a higher proportion of hours of nursing care provided by RNs and a greater number of hours cared by RNs per day were associated with better care for hospitalised patients linked with a shorter length of stay, lower rates of both urinary tract infections and upper gastrointestinal bleeding and lower rates of pneumonia, shock or cardiac arrest and failure to rescue. There was no evidence of an association between lower rates of outcomes and number of hours of care by LPNs or nurses' aides.

A study about nurse staffing and health care outcomes conducted by Lankshear et al. (2005) assessed the evidence for a relationship between the nursing workforce and patient outcomes in acute sectors. The study was a systematic review of twenty-two large and robust international researches conducted since 1990 involving acute hospitals and adjusting for case mix. The findings strongly suggest that higher nurse staffing and richer skill mix, especially of RNs, were associated with improved patient outcomes. In acute

settings, total staffing and LPN staffing tended not to demonstrate a link with improved outcomes. These findings are in congruity with the findings of the study of Needleman et al. (2002).

Tourangeau et al. (2002) investigated the effect of nurse-related variables on risk-adjusted 30-day mortality rates for hospitalised patients using data from nearly 4000 nurses and 46,941 patients in 75 acute care hospitals in the province of Ontario, Canada. The result after adjusting for case mix and patient care need was that a richer skill mix of RNs and the years of experience by RNs on their clinical unit were significantly and inversely related to 30-day mortality whereas the total amount of nurses staffing was not.

2.3. Education and experience

Aiken et al. (2003) examined whether the proportion of hospital RNs educated at the baccalaureate level or higher were associated with risk adjusted mortality and failure to rescue in surgical patients with serious complications. The proportion of hospital RNs holding a bachelor's degree or higher ranged from 0%-77% across hospitals. Each 10% increase in the proportion of nurses with higher degrees decreased the risk of mortality and of failure to rescue by a factor of 0.95 or 5%, after controlling for patient and hospital characteristics. Thus, both lower patient-to-nurse ratios and having a majority of RNs educated at the baccalaureate level appears to be jointly associated with substantially lower mortality and failure-to-rescue for patients undergoing common surgical procedures. On the other hand, mean years of experience did not independently predict mortality or failure to rescue. These findings suggest that nurses' experience is not more important than their educational preparation, but this is not in congruity with the findings of the study of Tourangeau et al. (2002). Experience is certainly important, but, it is not a substitute for education; rather education is the foundation on which experience builds (Long et al., 2004). A study of newly graduated, novice nurses with little work experience showed that it was important for quality and safe patient care to understand and provide

support to novice nurses as health care workers at all levels depended on the knowledge gained from more experienced and expertise co-workers (Ebright et al., 2004).

One of the recommendations of the IOM to increase patient safety is to support nursing staff in their maintenance of knowledge and skills (Page, 2004). Ballard (2003) points out that it is a nurse's professional responsibility to remain safe and competent by being a lifelong learner and the availability of staff development departments is a critical factor in delivering safe and competent care. A study of workload and job satisfaction among practicing nurses registered at the INA was conducted for the Association in the year 2000. Almost 10% (N=219) of practicing nurses in Iceland participated in the study (Biering, 2000). The participants were asked, among other things, about their opportunities at work for seeking continuing and further education. More than half said that they had little or no opportunities.

It appears from many of the studies that the relationship between nurse staffing and patient outcomes is positively associated with higher RN staffing levels and a higher proportion of RNs in the total staff mix. The staffing mix will also increase the quality of patient outcome if the mixing of skills and experience of the staff on each shift is adequate.

2.4. Patient-to-nurse staffing ratio

Consistent findings across multiple recent studies are that lower nurse-to-patient staffing ratios are associated with higher rates of non-fatal adverse events (Page, 2004). On behalf of AFT Healthcare a study was conducted in hospitals nationwide in the United States by Hart (2003). The study examined perspectives among 601 registered nurses who currently provided direct patient care to nurse staffing levels in hospitals. One of the key findings was that medical-surgical nurses cared for more patients than they felt they should. On average, medical-surgical ward nurses cared for eight patients during a shift. More than

two-thirds of the nurses cared for six or more patients on a shift. However, the nurses said they should only be responsible for five patients during a typical shift. The nurses reported that understaffing was contributing to several problems such as nursing leaving due to burnout (62%), nurses not having enough time to assist patients and their families (62%), or to educate patients and their families (62%), patients having to wait for a long period of time for medication/procedures (44%) and frequency of medical errors (26%). One out of five hospital nurses supported a legislation that would establish a maximum number of patients that nurses could be required to care for at one time. According to Biering (2000) it was most common that Icelandic nurses cared for 6-11 patients per nurse on morning shifts, 11-15 patients on evening shifts and 16-25 patients on night shifts. More than 65% of the participants reported that their unit/work place was understaffed with RNs.

Nursing staffing is measured in one of two basic ways, nursing hours per patient per day and the nurse-to-patient ratio (Stanton, 2004). Nurse staffing ratios are now mandatory in the states of Victoria, Australia and California, USA. In Victoria the ratios vary to meet the needs of nurses and patients from 1:4 plus a nurse in charge in a large city hospital to 1:6 plus a nurse in charge in smaller hospitals in general medical-surgical units. In California medical-surgical units have the nurse staffing ratio of 1:5 (Buchan, 2004). The Directorate of Health in Iceland published in 2001 a recommendation that nurse staffing in nursing homes was to be 2.5 RNs and 6 auxiliary nurses on a morning shift at 24-patient units, 2 RNs and 3 auxiliary nurses on an evening shift and 1 RN and 1 auxiliary nurse on a night shift (Directorate of Health, 2001).

Buchan (2004) examined the characteristics and early results of the use of staffing ratios in the states of Victoria and California. In his report he summarises some of the main reported pros and cons of using minimum ratios. The main arguments for its use were that it could halt or reverse reductions in nurse staffing and encourage workforce stability. It

was simple to implement and understand, provided a standard approach and if mandatory, it could ensure compliance from all employers. On the other hand, the main arguments against its use were the danger that minimum staffing became average or maximum, that it was calibrated adequately in relation to workload and other staffing could be reduced. The main weaknesses of the use of nurse-to-patient ratios were their relative inflexibility and their potential inefficiency, if wrongly calibrated. Their strength was their simplicity and their transparency. Their impact will be most pronounced when ratios are mandatory; were they offer a mechanism to improve and then to maintain staffing levels at some pre-determined level (Buchan, 2004). As a consequence of this kind of legislation, hospitals may cut spending for other personnel, such as unlicensed caregivers, housekeepers and other support staff, increasing the non-nursing activities of RNs (Stanton, 2004).

2.5. Work hours

To meet nursing shortages, hospitals, both mandatory and voluntary, have given nurses permission to work longer hours and overtime. Long working hours are considered to be the greatest threat to patient safety (Page, 2004). A study of 393 RNs working in hospitals in the United States revealed that hospital staff nurses worked longer than scheduled daily, and generally worked more than forty hours per week (Rogers et al., 2004b). Half of the shifts worked exceeded ten and half hours and 31% of the scheduled shifts were longer or equal to 12.5 hours but actual shifts where nurses worked at least 12.5 consecutive hours were 39%. During the study period nurses reported leaving work at the end of their scheduled shift less than 20% of the time. During the data gathering period there were reported 199 errors and 213 near errors. More than half the errors (58%) and near errors (56%) involved medication administration. The analyses showed that work duration, overtime and number of hours worked per week had significant effects on errors and the likelihood of making errors increased with longer work hours and was three times higher when nurses worked shifts lasting 12.5 hours or more. The odds of making at least one error increased when working overtime regardless of how long the shift was

originally scheduled. The long and unpredictable hours documented in the study suggest a link between poor working conditions and threats to patient safety (Rogers et al., 2004b).

Berney et al. (2005) looked at nurses' overtime in acute care general hospitals in New York State for a five-year period, 1995-2000. The findings showed that the average weekly overtime RNs worked was 4.5% of total hours (span 1-16.6%) and nurses working in non-governmental hospitals worked more overtime than did those in governmental hospitals. Nurses in unionized hospitals worked slightly more overtime than those in non-unionized hospitals. According to Biering (2000) 39% of the Icelandic participants worked full time (40 hours per week) when the study was conducted and 54% held an 80-90% position. Icelandic nurses worked 38.5 hours per week (span of 16-72 hours) and average overtime was 5.8 hours. Of the nurses working more than 35 hours per week 63% worked 35-45 hours; 27% worked 46-50 hours and 10% worked more than 51 hours. Head nurses had a significantly longer working week than staff nurses. Overtime hours increased with higher job proportions. Those in 75% positions worked less than 4 hours of overtime as those with full-time jobs worked on average 7.5 hours overtime per week. Sixty percent of the participants found staffing at their workplace insufficient at the time of study and they worked significantly longer hours per week than the other nurses who did not claim there was shortage of nurses at their units.

Nurses are increasingly working overtime and this has been used as a measure to reduce the impact of a critical shortage of nurses and the downsizing of nursing departments. The increased overtime, mandatory or voluntary, threatens nurses' ability to provide safe and individualized patient care (International Council of Nurses, 2005). In the United States a large number of hospital nurses report the existence of a documented policy that imposes mandatory overtime. In Europe nurses within the EU are protected by law from being forced to work overtime, but it is still common practice in almost all countries that nurses work overtime. The ICN (2005) points out that if no guidelines exist for overtime work

and no limits are set, the burden of these physical and mental demands will have a negative effect on patients as well as nurses and may put patients and nurses to risk. According to Roger et al. (2004b) mandatory overtime to cover shortage or staffing vacancies is a controversial and potentially dangerous practice. Most of the nurses work overtime, both because they were not able to finish their work before leaving and because of the workload and nurse shortage.

2.6. Workload

Numbers of studies have addressed the growing nurse workload and rising rates of burnout and job dissatisfaction. One study, conducted in Pennsylvania hospitals, examined the relationship between nurse staffing and hospital patient acuity. The results were that hospital patient acuity increased by 21% between 1991 and 1996 while at the same time there was no net change in the number of employed licensed nurses. In addition, the skill mix of the nursing staff shifted as hospitals increased the numbers of nurses' aids, resulting in more supervisory responsibilities of RNs taking them away from bedside nursing care (Stanton, 2004).

Aiken et al. (2001) conducted a study on 43,000 nurses at 711 hospitals in five countries. In this study only 30-40% of the participants felt nurse staffing good enough to provide quality nursing care and to finish their work during the shift. A report by the Directorate of Health (2002) in Iceland states that one-third of the employees at a major hospital in Reykjavik found it more difficult than before to finish their work in time and more than 40% claimed they often or always had a list of unfinished jobs at the end of the day.

According to Biering (2000) nurses found their work very stressful. The stress was partially due to increased demand to work overtime and they were often asked to work on their days off. Often they could not leave work when scheduled (60%) and could not take earned meal breaks (23%). A majority of the participants felt that patient admissions had

increased and length of stay was shorter than before. They also felt that there was not enough staff on their units and there were vacant nurses' positions. This is congruent with information on patient acuity and workload at a major hospital in Iceland (Directorate of Health, 2002).

2.7. Non-nursing activities

It has been documented that, in addition to providing nursing care, RNs spend a significant proportion of their time performing non-nursing activities (Page, 2004). In addition to increased patient acuity, nurses' perceptions of inadequate staffing levels were probably related to increased amounts of non-nursing tasks such as delivering and retrieving food trays; housekeeping duties; transporting patients; and ordering, coordinating or performing ancillary services (Stanton, 2004). Excessive paperwork, inefficient communication systems, outdated patterns of care delivery and other difficulties not only contributed to low job satisfaction levels and frustrating work environments but were major barriers to providing efficient and appropriate nursing care (Buerhaus et al., 2002) and ensuring patient safety. As early as 1954, when the first work sampling study of nursing in three general hospitals in Michigan was conducted, 11-22% of nursing time was spent on activities typically the responsibility of departments such as housekeeping, dietary functions and more of that kind (Page, 2004). Nurses continued to perform tasks that could be delegated to non-nursing personnel, including ancillary services (83%), vena-punctures (64.8%), housekeeping (55.1%), delivering trays (55.1%) and starting intravenous sites (51%) (O'Brien-Pallas et al., 2004). Many nurses in Iceland are dissatisfied having to spend their limited time doing jobs not benefiting their patients and want to utilise their time and knowledge to provide patient care (Biering, 2000). According to Aiken et al. (2001) many nurses in three countries, the United States, Canada and Germany, reported spending time performing functions that did not call upon their professional training, such as cleaning rooms or transporting food trays or patients.

Meanwhile, care activities requiring their skills and professional training, such as oral hygiene and skin care, were often left undone.

2.8. Collaborative trust

Trust is a complex phenomenon; however, it is an essential element in anyone's sense of safety and security in given circumstances. Trust involves some level of dependency on another party so that the outcomes of one individual are influenced by the actions of another. Dependency means that one's outcomes are contingent on the trustworthy or untrustworthy behaviour of another (Wells and Kipnis, 2001). Trust evolves from a mutual understanding based on shared values and is essential for employee loyalty and commitment (Laschinger et al., 2000). Trust is strongest when parties believe each other to be competent and to have one another's interest at heart. When trust links people, groups and organizations, leaders can rely on workers to have the organization's interest at heart and vice versa (Page, 2004) as trust refers to the employees' faith in the organizational leaders and the belief that ultimately organizational actions will benefit the employees (Laschinger et al., 2000).

As organizations restructure and re-engineer in the name of efficiency and effectiveness, organizational trust is an increasingly important element in determining the organizational culture, employee performance and commitment to the organization. Laschinger et al. (2000) examined the effects of organizational trust and empowerment on organizational commitment in a random sample of 412 Canadian staff nurses. The strongest relationship was found between trust in management and nurses' perceived access to information and support. Mistrust resulted when information was withheld, allocation of resources was inconsistent and employees had no support from management. When staff believed they had sufficient access to support, resources and information to get their work done, they were more likely to have faith in their managers and believe that organizational policies were intended to benefit employees. Support from

managers that leads to successful decision making or safe work environment benefits the trusted and fosters trust in management.

Gunnarsdóttir (2005) conducted a study of work environments, job outcomes and assessment of the quality of care among nurses and midwives working in clinical roles (N=930) at a major hospital in Iceland in 2002. In that study and in the study of Biering (2000) findings showed that RNs were most dissatisfied when nurse managers did not consult with staff on daily problems and procedures. These findings are supported by the findings of another staff survey at LSH indicating dissatisfaction with the level of staff influence on decision-making at the hospital (Directorate of Health, 2002). Visibility of nurse managers at all levels in the clinical setting is an important indicator of support and gives clinical nurses the opportunity to demonstrate their clinical expertise and be recognized for their skills. By talking to nurses, asking questions and listening to the staff nurses' perspectives of their work setting, nurse managers can gain a valuable insight into the current reality of nursing practice environments (Laschinger and Havens, 1996).

Employees seem to focus either on personal or job-related factors when they describe the reason for trusting or not trusting their manager. According to Biering (2000) the dissatisfaction of nurses with their nurse managers was connected to job-related factors and not personal factors. However, the majority of both managers and employees focused on personal rather than job-related explanations when describing reasons for not trusting each other in a research conducted by Wells and Kipnis (2001). They found the sources and consequences of trust were located in the day-to-day interactions of managers and employees. They suggested that over time, people experience discomfort (i.e. anxiety, fear or anger) when they must depend on persons whom they do not trust. One way of dealing with that is leaving the job.

As mentioned above, several recent studies have explored the links between the adequacy of nursing staff and patient morbidity and mortality. Work conditions like work hours and workload as well as collaborative trust also matter. Nurses seem to have a strong sense of professional identity and loyalty to patients. They chose patient care as their highest value while they see the employing institutions and executives enact finances as the primary value (Brown, 2002). Loss of trust in administration by nursing staff is frequently reported in studies of health care organizations' redesign and reorganization initiatives that have taken place in the last two decades (Page, 2004).

3. Methodology

In this chapter I will discuss the research approach, the hermeneutic phenomenological paradigm as presented by van Manen, data collection, trustworthiness of phenomenological studies, reduction as described by van Manen and ethical issues.

The study was a qualitative research, involving a naturalistic approach to its subject matter (Denzin and Lincoln, 1994). It is designed as a hermeneutic phenomenological paradigm as presented by van Manen (1990, 2002). I believe phenomenology is the optimal philosophical perspective to approach the subjective knowledge and understanding of the participants' lived experience and has the possibility of giving the phenomenon a fair presentation. As the purpose of the research is to discover meaning and not to measure and quantify or establish a causal relationship, the naturalist paradigm suits my type of study. The description and the meaning of experience will be the focus of the research. The outcome will not be generalized to any other nurses than those participating in the study, as phenomenology does not offer us the possibility of effective theory but rather offers us a plausible insight that brings more direct contact with the world of nurses' safety at their workplace (van Manen, 1990).

3.1 Philosophy and the hermeneutic phenomenological approach

Phenomenology is both philosophy and a research approach (Omery, 1983; Cohen, 1987; van Manen, 1990). It is a philosophic attitude which comes from asking the essential questions of ontology, i.e. the nature of being and epistemology, the nature of knowledge (Thorne, 1991).

A common core of phenomenology is to study the world of everyday life from the perspective of the people who have experienced it. The focus is on the perceived world of 'lived experience', a central concept in phenomenology. The purpose of a phenomenological study is to describe experiences as lived by the participants in their own circumstances and from their own point of view (Omery, 1983) and to identify the essence of an experience to gain understanding (Jasper, 1994). Rather than creating knowledge, the aim of hermeneutic inquiry is understanding (Koch, 1999). 'The generalization is not the aim of such work, reaching a new or better understanding is' (Koch, 1998, p. 1186). It is precisely through the accumulation of knowledge about the phenomenon that we gain a renewed, deeper or fuller understanding. Interpretive inquiry, such as hermeneutic phenomenology, does not prescribe action for use in clinical practice but it does influence practice by revealing the meaning of human experience (Van der Zalm and Bergum, 2000).

Through time, phenomenology has had a variable meaning and has been described as a "phenomenological movement" to show how dynamic this philosophy is (Spiegelberg, 1982). Through the years the philosophy has changed significantly, both across different philosophers and within each philosopher (Cohen, 1987). Immanuel Kant, in the late 18th century, was the first to describe phenomenology in a scientific context as the study of phenomena or the appearance of things (Cohen, 1987).

The German philosopher Edmund Husserl is generally acknowledged as the founder of the phenomenological movement (Omery, 1983; Cohen, 1987). His focus was on 'lived experiences', a central concept in phenomenology, which has become the catchphrase of the phenomenological method (Omery 1983; Cohen 1987; Koch, 1995). According to Koch (1995), Husserl's phenomenology comprises three components, which are intentionality, essence and bracketing. Through the process of bracketing the Husserlian phenomenology protects the objectivity of interpretation against the inner self of the researcher. His orientation was, above all, epistemological.

Phenomenology was further developed by other philosophers such as Martin Heidegger who was Husserl's student. By extending Husserl's philosophy, Heidegger shifted the philosophical debate from epistemology to ontology (Koch, 1995). Heidegger, among other philosophers, developed further the method to discover the experience of the phenomena. He did not agree with Husserl that the observer or the researcher could stand outside the situation and be objective and therefore bracketing is disproved by Heidegger (Koch, 1995). Heidegger's hermeneutics has been described as interpretative phenomenology or 'hermeneutics' concentrating on understanding, ontology (being in the world) and existence (van Manen, 1990; Pascoe, 1996).

Hans-Georg Gadamer, a German philosopher and Heidegger's pupil, took up Heidegger's work and developed it further. According to Koch (1996), Gadamer is the crucial figure in philosophical hermeneutics. His philosophy extended Heidegger's existential ontological exploration of understanding by providing an emphasis on language. Like Gadamer, van Manen places an emphasis on language and text. He claims that the aim of phenomenology is to transfer lived experience into a textual expression of its essence. According to van Manen 'to *do* research in a phenomenological sense is already and immediately and always a *bringing to speech* of something' (van Manen, 1990, p.32) and bringing to speech is most commonly a written activity. Thus, describing the phenomenon through the art of writing and re-writing is one of the methodical structures of human science research (van Manen, 1990). Phenomenological research is a study of lived experiences, the lifeworld. It differs from almost any other science in that it attempts to gain insightful descriptions of the way we experience the world pre-reflectively, without taxonomizing, classifying or abstracting it (van Manen, 1990).

3.2. Data collection

In this chapter, access and sampling, data gathering and data analyses will be discussed.

3.2.1. Access and sampling

Access involves gaining permission to do research in a particular social setting or set of institutions as well as gaining access to participants working at these institutions for making up the sample. Before going into the settings where data are collected, permission has to be gained from respective agents.

A purposeful sample is common in phenomenological research for gaining rich and in-depth information (Sandelowski, 1995; Holloway and Wheeler, 1996). In purposeful sampling, individuals who can best inform and increase the researcher's understanding of the study phenomena are consciously recruited. Usually the sample size in qualitative research is relatively small. A size of about six to ten participants has been recommended for the researcher to be able to gain the essence of experiences (Sandelowski, 1995) or until the saturation has been reached, i.e. a new participant does not add anything new to the description of the phenomenon. According to van Manen (1990) there is a preferred criterion of chosen participants who are not in the middle of the experience, as a person can not reflect on lived experience while living through it. Those who have achieved some distance from the experience are believed to reflect more fully as the reflection is retrospective.

3.2.2. Data gathering

Interviewing is the traditional way or technique used in hermeneutic phenomenological human science to obtain data from the subjects. One way of using interviews is to gather material or information which can be used as a resource for developing a richer and deeper understanding of a human phenomenon (van Manen, 1990). Interviews and conversations are non-directive so that participants are able to tell their stories in whichever way they wish (Koch, 1996). According to Kvale (1996) the virtue of qualitative interviews is their openness. Using the open-ended interview method for gathering information demands that the researcher is oriented about the research question and focuses on questions about the lived experience. Kvale (1996) states that open

questions can be asked about concrete situations and using question words like ‘what’ and ‘how’ is more helpful than ‘why’ questions. In-depth interviewing is one type of interviews which seeks full information and understanding of lived experience. It is often an appropriate method to use in qualitative research (Johnson, 2002).

Keeping a journal or reflective diary can be helpful for the researcher, since keeping a record of insights gained as well as feelings and experience during the research process can supplement the data gathered. Using a notebook during the interviews can also help for writing down remarks as one proceeds (van Manen, 1990; Price, 2002).

3.2.3. Data analyses

Seeking meaning or the essence of lived experience is the purpose of phenomenological reflection. As the meaning or essence of a phenomenon is never simple or one-dimensional, the meaning of safety can never be grasped in a single definition (van Manen, 1990).

One way of analysing the data and trying to grasp the essence of the nurses’ lived experience of workplace safety is to follow the thematic structure described by van Manen (1990). According to van Manen (1990), phenomenological themes might be understood as the structure of experience. When seeking meanings we try to determine the themes by analysing the phenomenon, the experiential structure that makes up the experience.

By studying the fundamental thematic structure of human existence we may explore the structure of the human life world, our lived experiences and structures of themes in terms of which these lived experiences can be described and interpreted (van Manen, 1990).

To isolate thematic statements, Van Manen (1990) points out that generally there are three approaches toward uncovering or isolating thematic aspects of a phenomenon in the text: Firstly, the holistic or sententious approach where we try to find the sententious phrase that may capture the fundamental meaning or main significance of the text as a whole. Secondly selective or highlighting approach where we try to find what

statement(s) or phrase(s) seem particularly essential or revealing about the phenomenon or experience being described by reading or listening to the text. Finally the detailed or line-by-line approach where we ask what does this sentence or sentence cluster reveal about the phenomenon or experience described. As the themes begin to emerge we may note that certain themes recur as commonality or possible commonalities and the task is to hold on to these themes by lifting appropriate phrases or by capturing in singular statements the main thrust of meaning of the themes.

Another way of analysing data according to van Manen (1990) is to identify four fundamental existential themes: 'lived space (spatiality), lived body (corporeality), lived time (temporality) and lived human relation (relationality or communicationality) (van Manen, 1990, p.101) These four categories are considered as belonging to a fundamental structure of the lifeworld and in order not to confuse them with the more practical themes of certain human phenomena, they are referred to as 'existential'. 'Therefore, spatiality, corporeality, temporality and relationality are productive categories for the process of phenomenological question posing, reflecting and writing' (van Manen, 1990, p. 102).

3.3. Trustworthiness

To establish trustworthiness in qualitative inquiry Lincoln and Guba have set criteria of credibility, transferability, dependability and conformability (Koch and Harrington, 1998). In an effort to satisfy the demand for rigour within naturalistic research, the promotion of 'credibility' and 'dependability' are the two major criteria upon which qualitative research should stand to meet 'rigorous standards' (Koch, 1998; Maggs-Rapport, 2001).

3.3.1. Credibility

A study is credible when it presents faithful descriptions. In order to demonstrate credibility it is important to show that multiple constructions are represented adequately

(Koch, 1998). It is considered credible when participants or readers confronted with the experience can recognise it (Sandelowski, 1986). Presenting the findings to respondents and asking them to verify whether or not they agree with them is a way of verifying qualitative studies and research findings (Cutcliffe and McKenna, 1999). Van Manen (1990) describes this as the 'phenomenological nod' as participants nod when recognising the phenomenological description as an experience that they have had or could have had.

3.3.2. Dependability

The process of auditing is one of the ways in which the dependability of the study may be shown (Koch 1998). Auditability is a criterion of truth in quality research and has to include a clear documentation of the various decisions made during different stages of analysis (Fleming et al., 2003). Auditability is achieved when the researcher leaves a clear decision trail concerning the study from its beginning to its end for other researchers or any readers to follow the progression of events in the study and understand their logic (Sandelowski, 1986).

3.4. Reduction

Van Manen (1990) believes that bracketing is impossible but uses the technical term 'reduction' to describe the phenomenological device, which permits us to discover and to come to an understanding of the essential structure of lived experience. Prejudice determines the nature of perspectives and our judgement about the world and it is important to be aware of this during the research process.

Gadamer believes that it is impossible to bracket preconceived ideas and leave them behind and it is impossible not to take them into the process of interpretation (Gadamer, 1986). In fact he argues that it is only through our prejudices that we can begin to understand (Koch, 1999). He presents a positive conception for prejudice and argues for its need and assistance for understanding (Gadamer, 1986).

3.5. Ethical issues

Ethical issues in nursing research are not fundamentally different from those involved in the research of other disciplines where human beings participate. When research involves human subjects, approved professional ethical principles and standards are to be respected (Northern Nurses Federation (NNF), 2003). Both NNF and ICN have published ethical guidelines for nursing research where ethical principles and rights of subjects are presented. Nursing research is guided by ethical principles of 'doing good', 'doing no harm', 'being fair', 'trust', 'telling the truth', and 'safeguarding' as well as rights of subjects; the right not to be harmed, the right of full disclosure, the right of self-determination and the right of privacy, anonymity and confidentiality (International Council of Nurses, 2003).

4. Methods

In this chapter I will discuss my collection and analysis of the data. I will also discuss the ethical issues concerning the study.

4.1. Access and sampling

The study was carried out with participants from four hospitals in Iceland. Due to the nature of my study, I found it necessary to select the participants from the group of nurses who are currently working and experiencing workplace safety since nurses no longer working as such will have a different view. I believe the participants were not reflecting on their safety while feeling safe or insecure, rather they were reflecting on lived experience of workplace safety that has already passed or been lived through.

To access my sample I started with one advertisement in the Icelandic nursing journal where I asked for participants. No one answered my call, so I had to find another way of getting my sample. The hospitals selected were located in different parts of the country. The hospitals vary in size, and all of them have medical and surgical floors with active patient treatment and acute admissions. Having received the necessary permission for my research, I contacted the chairs of the district sections of the Icelandic Nurses'

Association covering these hospitals and asked them to supply me with the names of three nurses currently employed in either surgical or medical wards in their local hospital. I selected one nurse out of three named from each of these four hospitals as potential participants, or a total of four to begin with. Following, I used a snowball or chain referral sample (Coyne, 1997) asking each and every one of my participants to suggest three other nurses for the research. I then selected one participant from these groups of nominees and then from further referrals. The main criteria for my choice of participants was that the nurses had to have at least two years of working experience, because it was important that

the nurses' lack of knowledge or experience would not affect their lived experience of workplace safety.

When selecting the sample I had in mind variation in age and period of employment of the participants. The sample size was eight nurses, as I then felt that that saturation had been obtained since the last participant did not add anything new to the description of the phenomenon. My sample is fairly heterogeneous, consisting of bedside nurses working in either medical or surgical units at four hospitals in Iceland, with work experience of 5-24 years and an age range from 30-47 years. At least one participant came from each of the four hospitals.

4.2. Pilot work

Before I started the data collection, two pilot interviews were taken with two nurses I know personally. The interviews took place at my office and were transcribed. The purpose of the pilot interviews was, in the first place, to find out whether I should ask the participants to think of a specific instance or situation while reflecting on their lived experience of workplace safety as van Manen (1990) points out can be helpful, or to reflect on their lived experience of elements supporting and threatening their safety in their working environment. Secondly, the interviews were intended as a kind of training for me. From the pilot work I learned that asking the nurses to tell me about their lived experiences in general was much easier for them and gave me a better insight into their lived experiences of the phenomenon. I also learned from listening to myself that I had to be more precise with my questions and give the participants more time to reflect on their lived experiences.

4.3. Data collection

Each participant was interviewed once. The interviews were conducted during September and October 2005. Four of the interviews took place at the participant's home, three at my

office and one at my home. The interviews lasted from 35 to 75 minutes and were transcribed verbatim. All the participants were interested in the research project and thus it was easy to get them to reflect and communicate their experiences. I noticed that they cared about the subject and about the research question. Their interest and concern made me feel a certain moral obligation to the participants, which according to van Manen (1990) should prevent a sheer exploitative situation from my side.

Johnson (2002) recommends that the researcher should begin the interview slowly with small talk and then ask a simple planned question to break the ice and get the ball rolling. I had this in mind when I began the interviews, but soon realized that this was unnecessary. My participants were all deeply interested in the research question and most of them had prepared for the interview, so there was no need for me to encourage them to talk about their experiences. I used open questions like, "Can you tell me about your experience?" "How did you feel when ...?" "What was it like ...?" to help me while interviewing my participants.

I kept a reflective diary through the research process where I wrote down my thoughts, feelings, beliefs and values during the research, bringing my own perceptions into view. As I believe it is impossible to bracket oneself in any human-to-human situation, including the research context, it is important to make one's own prejudgement clear to oneself and the readers. I also wrote down my reflections on my participants' feelings, their interests and concerns, as some of them showed strong signs of feelings by their body-language. I did not write down any comments during the interviews.

4.4. Data analyses

As the interviews were taken over a two-month period of time, I spent some time working on each interview before I took the next one. I started by listening to the interview several times and then I had it transcribed. After having all of the interviews transcribed, the texts of the transcripts were analysed by using the thematic format described by van Manen

(1990). I read the entire text over several times, trying to grasp the essential meaning of the participants' lived experience of workplace safety. In my search for the essence of the participants' lived experiences, I started with identifying the themes and key statements. As I read the interviews, I identified and marked in green every element that supported my participants' safety at their workplace and then I identified and marked with a yellow colour every element that threatened their safety. Then I looked at all the supportive elements, trying to find out if there were any structures or themes and the same thing was done with the text including the elements that threatened my participants' safety. For the purpose of finding the study the best way of presentation, I decided to look for the essence of the lived experience of the participants using van Manen's four existential themes; lived space, lived body, lived time and lived relation. I then classified my participants' lived experience into these four existential themes. It was sometimes tricky to find out where the lived experience could be categorised, because I felt the same experience could belong to more than one theme. Sometimes it was difficult to break up a participant's account because of the contextual interdependency of the items. After a carefully analysis of the data and advisement I turned back to the theme analyses I started with as I believed that will suit the study better. I then isolated from the transcribed texts two main themes and some sub-themes within both main themes. In determining the themes, I was concerned to discover aspects or qualities that make the phenomenon of workplace safety what it is and without which the phenomenon could not be what it is. In order to do so, I asked myself if the phenomenon would still be the same if I changed or deleted each theme from the phenomenon or whether the phenomenon would lose its fundamental meaning without each theme present (van Manen, 1990).

The final step was writing up the findings. In my effort to do justice to the fullness and complexity of the lived experiences, I wrote and rewrote the text many times. Rewriting turned out to be a process of re-thinking, reflecting and re-cognizing the experience of the participants (van Manen, 1990). In the end I constructed a multi-voice text where

everyone involved has a voice, quoting the participants as needed. Thus I tried to emphasize the variation of the participants' experiences.

4.5. Trustworthiness

To establish credibility, I tried to ensure that the perspectives of the participants were represented as clearly as possible. To do so, I use direct quotations from the texts to help the reader make a judgement in this matter (Fleming, 2003). I returned to one participant for verification of the research findings and she confirmed my understanding of the phenomenon. That participant speaks and reads English very well, has a deep understanding of the phenomenon and has shown a great interest in the study. I had planned to present the study to nurses in an open meeting and look for the 'nodding' to see whether the audience recognized their own experience in the analytic description. However, an unexpected opportunity of verification turned up as nurses at one of the hospitals announced an open meeting on the issue of nurse shortage. I still plan to present my study for verification.

In order to establish the dependability of the study, I tried through my documentation to clarify and describe the philosophical and methodological approach of the study. The research procedure and decision trail is described clearly for other readers to follow and evaluate the decisions taken about the theoretical, methodological and analytical choices throughout the study.

4.6. Ethical issues

Before data collection I asked for written permission to interview nurses from the directors of nursing in the hospitals concerned. I also applied for permission to the ethics board of administrative research at Landspítali-University Hospital. Finally, the Icelandic Data Protection Authority was notified of the proposed research.

I contacted the nurses I had selected from the tips I received from the chairs of the district sections of the INA by telephone and asked them if they would be willing to participate in this study. All of them agreed without hesitation. Before starting the data collection, I sent all the participants a letter (see Appendix 7) inviting them to participate. They were informed about the study and their rights as participants. A special emphasis was placed on their right to withdraw from the study at any time. The participants gave their signed informed consent before the interviews took place. Confidentiality was promised on my behalf and to ensure anonymity. Since working nurses in Iceland are fewer than 3000 and the hospitals that met the criteria of this study were relatively few, there was always the chance that the participants might be recognized if the data was not handled with caution. Therefore, the participants were not named. Since it is also easy to trace specialized hospital units because of their scarcity, I tried to conceal their identity by giving as general a description as possible instead of mentioning them specifically. I hired a typist to transcribe the interviews and she was bound to confidentiality.

I obtained the participants' permission to tape record the interviews. The taped recordings were subsequently typed. The tapes and the transcripts were stored in a closed locker in my office and I will personally delete them after I have finished my study. I labelled the tapes by numbers and keep the list where I match the names and the numbers in a different locker.

As my participants were very willing to share their lived experiences with me and no one withdrew from the study, I felt that the nurses believed that their participation in the study was an opportunity to share their experiences and worries about their safety at work and express their hopes that their participation in the study would help improve the safety of nurses and patients in hospitals.

In my opinion, the greatest advantage of participation is to become more aware of the phenomenon, which in turn may lead to increased discussions with co-workers on issues of nurse and patient safety in hospitals.

I think the risk for my co-researchers is minimal provided anonymity is respected. They might learn about some unpleasant feelings of their own, but I believe that this will not turn out to be a problem they will not be able to handle by themselves.

5. Findings

In this chapter the main findings will be presented.

The following two main themes emerged from the data analyses: 1) Support and threats in the work environment and 2) Trust and distrust. The two themes each have sub themes.

5.1. Support and threats in the work environment

5.1.1. Staffing

5.1.2. Workload

5.1.3. Work conditions

5.2. Trust and distrust

5.2.1. Trust in oneself

5.2.2. Trust in co-workers

5.1. Support and threats in the work environment

This theme presents how factors in the work environment, such as staffing, workload, work processes, work design and opportunity to stay professional as a nurse, affect the safety of the nurses. This theme contains three sub-themes for further expression of how the work conditions affect the lived experience of nurses' safety at work. There are several factors which are indicated by the participants as either supporting or threatening their safety in their work environment.

5.1.1. Staffing

Staffing was a fundamental factor in supporting nurses' safety. Every participant expressed his/her feelings that adequate staffing was important to make them feel more

secure in the workplace and shortage of staff threatened their safety. Safe staffing was described in various ways:

- Adequate number of nurses to meet safety levels.
- Skill-mix of experienced and inexperienced nurses on duty.
- Auxiliary staff to assist with nursing care and non-nursing activities.

Throughout their professional time participants had witnessed both increase and decrease in the number of nurses in their hospitals. Everyone expressed their experience of feeling more secure if they felt the number of nurses were adequate as well as the right skill mix. Despite of improved staffing levels at some hospitals, the participants experienced that there was still an inadequate number of nurses especially when acute situations arise, particularly on the evening- and nightshifts, which affected their feelings of safety. Some participants said staffing levels had dropped or stayed the same despite increased admissions and patient acuity. Even though hospitals or odd units were having a shortage of nurses, some organizations neither hired nursing staff to fill vacant positions nor replacements during the summer holidays.

One participant said:

‘I feel safer now than five years ago, not just because my knowledge has improved and I have acquired more experience but because there are more nurses working on each shift. I feel this supports my safety.’

Another participant said:

‘Some years ago we used to care for three or four patients each, but now we are responsible for five to six seriously ill patients each.’

Another participant said:

‘We are too few – there is a heavy workload – there is a shortage of nurses – we are understaffed and at the moment we have many and seriously ill patients. And nothing is done about it.’

Constant understaffing is particularly detrimental on specialized wards where it takes a long time to train new staff. One participant was particularly worried about this shortage of nurses and how few of them were employed on the ward and, as a result, that normal turn-over was practically non-existent. This imposed the risk of losing valuable specialist knowledge and experience because the nurses felt so overworked that they gave up and left. Constant understaffing was a threat to the nurses’ safety as it encouraged nurses to think about seeking employment elsewhere.

One of the participants describes the impact of severe and constant staff shortages on her ward as follows:

‘Often we are quite prepared to leave for good. The situation has been bad for a long time – it has been gradually deteriorating and last spring we lost, I think, three or four nurses, just because of the heavy workload due to shortage of nurses.’

The expertise and skill mix of the nurses was no less important than having an adequate number of nurses on duty. Organizing the shift with nurses who had various levels of experience was more effective than having many inexperienced nurses on duty together. The participants agreed that skill mix was the rule rather than the exception and this mixing of skills, abilities and experience helped support their safety.

One participant said:

‘They try to organize the night shifts so that one of the nurses on duty is more experienced than the other one, not two inexperienced ones together. This is a safety issue. Also in the summertime the nurse students are coupled on the shift with the nurses who have the most experience. This is respected on all shifts.’

Interestingly, one of the participants in the study was the most experienced of the nurses on the ward (five years). Her experience, as the most skilled nurse on the ward, was that it could be stressful always having to rely on herself and having to respond to the queries of less experienced staff. Sometimes she had difficulties coping with the responsibility as the most senior nurse and that was a threat to her own safety as well as that of the other nurses.

When working with inexperienced nurses, contingent nurses from outside the hospital and nurse students for some period of time or many at the same time could be experienced as a threat to participants’ safety. Attempts to combat nurse shortage by hiring nursing students was not experienced as supportive to nurses’ safety.

One participant said:

‘We had to load too much responsibility on to the nurse students, which was of course unsafe for them and they all left. We lost them all because they could not face up to this responsibility.’

Another participant said:

‘Lately it has frequently occurred that on the morning shift there is only one experienced nurse and up to three inexperienced ones and during the night shift there are sometimes only nurses from the

recruitment agency. When there are so many inexperienced contingent nurses working at the ward, who do not know the ward or the patients, the regular staff feel like their safety is threatened as well as that of our patients.’

In addition to the shortage of nurses, there is more need for auxiliaries and nurses’ aids. In some hospitals there is also a shortage of auxiliaries and in other hospitals supportive staffing has been cut back in recent years. Adequate numbers of experienced auxiliaries and nurses’ aids supported participants’ safety and inadequate numbers of supportive staff threatened it. Despite an increase in the number of patients as well as higher patient acuity, the nurses were being handed a wide range of non-nursing activities. Examples were given of supportive staff being laid-off and tasks added on to the nurses’ duties. These included all kinds of housekeeping activities like delivering and retrieving food trays, handling computer registration, such as admissions and discharges of patients which formerly had been carried out by secretaries, and ordering tests, which required a great deal of time.

One participant said:

‘There are various non-nursing activities that the nurses are required to do without being asked. It is just the hospital administration or nurse managers who make the decisions.’

Another one said:

‘They are always giving us more to do. It is not just that we care for more seriously ill patients who need increased care from a specialized nurse – where I can apply my knowledge and skills – but I also have to mop the floors, register patients like a secretary, organize the linen cupboard, etc. And on top of that you have to keep making sure that

the physicians do their job properly, for instance giving orders. I often ask myself if I am supposed to be the mother here, or what?’

One participant believed that the only way to support safety due to nurses’ shortage was to hire more nurses as patient acuity and the number of patients kept growing. She felt there was also a need for more nurses’ aids who could be trained for various tasks and thus take the strain off the nurses.

5.1.2. Workload

In this sub-theme the many faces of high workload and long work-hours is described. Workload could manifest itself in too many patients to care for or not enough time to do so; two facets of the same coin. The consequences were unsatisfactory job performance and lack of job satisfaction possibly resulting in burn-out and resignation.

Concepts like ‘lack of time’, ‘running out of time’, ‘always in a hurry’, ‘at the last minute’ came up frequently in participants’ descriptions of their work environment. Workload and lack of time, in association with an inadequate number of nurses, were factors they believed was a great threat to their safety. Clock hours and workload did not fit and this lead to a constant conflict. Time was thus rather a complicated matter for nurses. They have to follow a strict time schedule concerning, for example, their patients’ medication and must have all their jobs done by the end of the shift. At the same time they have to respond to every acute situation which may arise and be prepared to reschedule their plans all the time, giving them the feeling of no control of time. This lack of control over their own time made the nurses feel frustrated and in constant conflict or struggle with time and workload which they experienced as a threat to their safety.

One participant said:

‘The nurses are always in a hurry and we are not able to care for our patients as we should and we are not able to be the surveillance we should be. Our patients have to wait for our assistance for a long time, ten minutes or even longer, and this leads to a failure to rescue situation on the ward.’

Endless battles with time were experienced by the participants and they described the workload and work demands as too heavy. They were always in a hurry and their whole time was used up for the most urgent tasks and there was no time for quality work or some kind of developmental projects in nursing. If they were to finish all their work during the shift they had to hurry all the time as they are supposed to leave on time and not to leave things behind for the nurses on the next shift.

One participant said:

‘The speed makes you worried and insecure. You no longer have time to care for your patients the way you should and therefore you feel unhappy about your professional approach at the end of the shift. You experience dissatisfaction in your work. It has become like a wheel that keeps spinning faster and faster – and the staff must spin with it – take part in this development – and you cannot reduce the speed.’

Another participant said:

‘You gradually stop noticing. I forget that things used to be better and shouldn’t be as they are – and that is too bad.’

When participants experienced the workload as normal it was sensed as supportive, improvement for job satisfaction and professional work which benefited the patients.

Instead of delivering task-oriented patient care, they were able to shift to more primary care nursing which in turn brought nurses closer to their patients and their needs. These changes brought participants a new and improved self image as professional nurses as well as safer care for their patients. The job satisfaction improved and none of them mentioned anything about moving or changing their workplaces.

One participant said:

‘I feel a great difference since the workload decreased. Work is more enjoyable. I feel I can deliver better patient care and I can communicate with every patient on the shift, and I am informed about their condition – I am not just running around and attending to whatever I can manage. A year ago we introduced ‘primary nursing’ and I feel that the staff nurses are more satisfied with that. You get to know your patients much better. You manage to complete all your tasks during the shift, the patients are more satisfied and so are the nurses.’

On the other hand, when the workload is experienced as heavy the participants described it as a threat to their safety, their professional work and their patients’ safety. Over the past five years or so, increased workload became more of a threat to some of them than before. Unlike before, they often have to prioritise their jobs as they felt like they were not able to care for their patients as they would like to do. This situation was stressful and did not support their safety. The nurses prioritised the patients and because of lack of time some other professional work was left behind or skipped completely.

One participant said:

‘In the past we occasionally had shifts that were total bedlam and then we would talk about how difficult the shift had been and you couldn’t

finish half of what you had to do – but now this seems to happen all the time.’

As the nurses were dissatisfied with the present situation, their job satisfaction decreased and some even gave in and quit their jobs. They could not see the situation improving in the near future and must, therefore, decide whether to continue working under the present conditions or whether they should seek employment elsewhere. Extensive changes which span long periods of time had the same effect. The future becomes indistinct and nurses begin to leave the workplace.

Long working hours and overtime work was felt like a threat to the nurses’ safety at work. The participants felt that long shifts, i.e. ten hours or longer, increased the risk of errors and near errors and thus they experienced those as a threat to their safety. Frequent extra shifts and long working weeks also tended to create similar insecurity.

One participant said:

‘We have had twelve-hour shifts every third weekend. People make more mistakes then – this is a demanding job and more mistakes are made when we work such long hours. Such long shifts are simply a recipe for errors.’

Another participant said:

‘We are having a severe shortage of nurses at the unit so there is a heavy pressure on us to work overtime. You just have to work overtime and sometimes you are not able to leave work on time because you haven’t finished your work and sometimes you just have to stand the next shift too.’

In the opinion of all the participants, sound documentation supports safety as they could rely on having all the information they needed for safe patient care written down. They agreed that most hospitals had adequate documentation procedures, although there was always room for improvement. They also pointed out that whenever staffing levels drop, important documentation does too, which can create various problems and decrease the safety of patients and staff.

One participant said:

‘We try to keep up with documentation, but when we are busy this is the first thing we put aside. The patients are our top priority and then you can’t spend time on paperwork.’

Another participant said:

‘The documentation is often not secure enough. Once I gave a patient medication he had already got because the nurse who gave it to him did not write it down on the medication sheet. This is awful – in that case I made the error because another nurse did not document as she was supposed to do. This is how the errors occur.’

5.1.3. Work conditions

Poor and cramped work conditions impose the risk of mistakes being made. Most of the participants had a negative experience of their wards’ design as being supportive of their own and their patients’ safety. Most of them experienced the space as being too small and both staff and patients felt cramped and work facilities tended to be lacking in quality. As an example, a ward that had beds for eleven patients often had almost twice as many patients passing through in one day. On account of this lack of space, the patients sometimes were discharged earlier than recommended by quality standards. The lack of space resulted in insufficient work facilities for nurses, which in turn threatened their

safety and increased the risk of mistakes. Insufficient facilities on the wards for patients, families and staff, such as lack of private space, stepped up the stress and tension on the ward. On the other hand, good work conditions supported security.

One participant said:

‘When the shifts are very hectic, which happens rather too often these days, it is very easy to confuse patients as their papers are all piled up and with all this crowd and hurry it is bound to happen. As I say, the lack of space is crushing us and the work conditions for the nurses are pathetic.’

Another participant said:

‘Some time ago the ward moved to another location. There they put isolating panels on the ceiling so the noise dampened down and it is so nice to work there since, even though the patients keep rolling through as fast as ever. I didn’t realize until this got better how tiring the noise has been.’

Facilities for preparing and giving medication were, according to the participants, more often than not insufficient and tended to increase rather than decrease the risk of errors. The participants mentioned crowded spaces, and bad locations, which meant nurses got little privacy to prepare the medication, were constantly interrupted and had to leave what they were doing in order to answer the telephone or take care of other things and were therefore always in a hurry. One participant said conditions on her ward, as well as for the preparation of medication, were good and she was content with it as the dispensary was lockable and easy to work in. There was, however, more to this than just the quality of the physical facilities. The participants pointed out that the use of same-name drugs and the design of containers were important when it comes to preparing medication.

One participant said:

‘We are constantly seeing new names for the same drug, even up to five different names for the same medication. It is very easy to mix them up, especially for those who have limited experience. When I am preparing medication I get questions all the time – ‘Do you remember what this is called? Do you know what this is?’ – even from the doctors because they don’t always know about these same-name drugs and when they give their orders for medication they do not write the name of the drug in use.’

Another thing regarding medication is that different drugs were often packaged in similar containers so it was easy to take the wrong medication by mistake when there was a call for quick reactions, for instance in an emergency.

One participant said:

‘We have incidents where morphine was administered instead of atropine and vice versa because the ampoules are too similar.’

Various factors concerning hygiene, disinfection and antisepsis were seen as a threat to safety. Disinfecting and antiseptic procedures were sometimes poor and one participant mentioned that facilities like specialized isolation rooms were not functioning properly. There were instances of malfunctions in important safety equipment and other equipment failing to work when needed.

The participants believed, on the other hand, that it supports safety if sound and reliable equipment is available and the staff knows how to operate it. Most of the participants said that the situation was good in this respect and that conditions were generally improving.

One participant said:

‘Now the manufacturer or the vendor is responsible for teaching us how to manage the equipment before we start using it – they must organize courses or come to the ward to show us how it works – and this of course increases the work safety of nurses.’

Factors such as noise, light and air-conditioning must be adequate in order to support the nurses’ safety. Similarly, it is important to ensure that the materials and substances they use are easy to handle and not likely to cause harm in any way. Frequent changes in supplies may reduce safety since the nurses have to keep familiarizing themselves with new materials. In some places the nurses are consulted before new goods are ordered, which is a positive development.

Lack of space increases the risk of injury and makes it hard to pay attention to ergonomics and correct posture which, in their opinion, increases the possibility of various ailments and skeletal disorders. The participants worried about their bodily health and wellness. They stated that various physical ailments, such as pains in the back, hands and hips as well as muscular rheumatism, were common among their colleagues and confirmed that they had at some time or other experienced back pains and fibrosis. Some of them pointed out incidents of staff being physically hurt or injured at work and nurses even becoming infected with serious diseases such as tuberculosis.

Stress or tension can also cause physical symptoms. This is how one of the participants described the way stress had affected her physically.

She said:

‘If there is a heavy workload, I feel stressed and experience physical pains which I attribute to stress. My shoulders hurt. Now I work out

regularly and try to relax in various ways to get the stress out of my system, but sometimes it is a bit too much.'

Both mentally ill patients and outsiders have threatened the physical safety of nurses.

A participant said:

'There is not enough attention paid to locking up the building, and that gives me a tremendous sense of insecurity. I have had someone appearing in the middle of the corridor – a mysterious person.'

Work procedures helped to increase a sense of safety. They were particularly useful to new members of staff, but experienced staff also found it helpful to be able to look things up and review certain topics, particularly infrequent processes. Quality control manuals and procedures supported safety whereas outdated manuals and procedures did not. When the number of nurses dropped or the workload increased, the participants stated that quality control work was the first to be cut as there was little time left for professional work of this nature.

One participant said:

'There is a shortage of nurses. We need more staff so that we can carry out professional development work, like the quality control manual and procedures. We did some work on this two or three years ago but now we have no time for this, not even to update what we already have – let alone develop something new.'

As computerization was generally good, the participants regarded it as supportive, especially when they had a reliable access to the Internet and information concerning patients and the treatment they were receiving. Computer registration, however, turned

out to be time-consuming and not conducive to safety with the result that what was meant to be professionally supportive was not felt that way. More computers were needed on the wards to facilitate information retrieval and ever-growing registration duties. The nurses appeared to be active in seeking information on a range of issues concerning their work, both on the Internet and the institutions' intranets, which in many instances were a source of valuable education materials and information. Levels of computerizations did, however, vary between institutions and some participants saw it as an encumbrance at present although they appreciated the advantages it might bring them eventually.

One participant said:

'We are getting more computers on the ward. Having computers near the patients improves our professionalism and supports safety because then we don't have to leave the patients while we are looking things up or doing other kind of work on the computer. I can use the computer to find information on all kinds of things concerning my patients and the hospital's intranet is very good. It gives us access to the patient files, we can order blood tests and view x-ray results – this is all on the computer and I can access it without leaving the patient. They are trying to make our jobs easier, but then the patients are so seriously ill that I simply can't just sit in front of the computer. Entering information and all this computer work takes a lot of time, at least under the present conditions. You must key in a whole lot of commands when your are, for example, ordering a blood test and this takes an incredible amount of time.'

The continuous education of staff was an important factor in supporting safety at work. All participants agreed that life-long learning was vital and increased their safety. Course availability and accessibility for nurses varied, however.

One participant said:

‘I like refresher courses of all kinds – it is good to have attended a course in ACLS – it makes me feel safer. I feel secure in knowing that I can react correctly in acute situations and that I have what is needed – staff, equipment and know-how.’

5.2. Trust and distrust

This theme gives information about how collaboration and trust between co-workers can support or threaten safety. It presents the relations nurses have with those they must rely on, whether they are fellow nurses, physicians, nurse managers or oneself. The main concepts in the relations are trust as a supportive factor to the safety of nurses’ work environment and distrust as a threat.

5.2.1. Trust in one self

This sub-theme reflects the participants’ experience of being able to trust them selves to ensure their patients’ safety. They reflected strongly on their responsibility for their patients’ safety and in order to be able to ensure that they have to have confidence in themselves. None of the participants feared not being able to handle a possible situation in their workplace due to lack of knowledge. What worried them, however, was not being able to handle a situation because of lack of support from the work environment, including co-workers and themselves. The participants worried about their memory lapses due to workload as they tended to forget to perform parts of the nursing process, or to enter records or report on their actions during the shift. They experience this as emotional stress and exhaustion, which threatens their safety as well as that of their patients.

One participant describes how her thoughts were always geared towards the workplace.

‘I am always tired. I never get to clear my mind of work – these are difficult conditions and I must get a break – to clear my head – but I

never manage – I get home and I think – did I forget this? – did I remember that? It is worst when I am on the evening shift and morning shift the day after, I don't sleep at night – or I wake up at two or three in the morning and start thinking about things I might have forgotten.'

Due to workload and long work hours the nurses worry about not being mentally present. Mental discomfort, irritation and hopelessness were factors which the participants believed to have a negative impact on their performance at work. In order to ensure safety, it was vital to feel mentally balanced and focused on the work at hand. Participants described how different situations at work evoked feelings of well-being or discomfort. They experienced mental well-being when they felt they were doing a good job and were in charge of their circumstances. Feelings of discomfort were, on the other hand, perceived when they felt unable to deliver quality nursing care to their patients. They believed their own well-being supported their safety but their discomfort and fatigue threatened their safety as they could not concentrate on their work.

One participant said:

'I am not happy with what I am doing. I don't have time to do my job as well as I would like to and I see myself as a very bad nurse and feel displeased with my professional approach at the end of the shift.'

Staff morale on the ward also seemed to affect the emotional well-being of the participants. A good morale encouraged a sense of safety, in their opinion, and they thought it was important to feel the support of colleagues if something untoward happened. On the other hand confrontations, tension and lack of understanding between colleagues and between departments created a sense of distress and insecurity.

One participant said:

‘I am frustrated. I am so tired of my work because I am so dissatisfied with my inability to do my job properly. You just want to throw in the towel – I must admit that I have been on my way out for a few months now; I simply cannot do this anymore. What keeps me in this ward is the positive staff morale – we work really well together. Somehow – despite all the negativity – people try to cling to the positive and make use of it to keep them selves afloat. I want to show my solidarity with these people – not let them down.’

In my diary I wrote:

It is interesting to witness the participants’ bodily expressions during the interviews. Their body expressions reflect their emotional feelings and are in harmony with the lived experience they express in the interviews. I witnessed body-language of sadness, frustration, anger and desperation of those who were not satisfied or felt more threats to their safety. One participant who experienced job satisfaction and safety at work was relaxed and happy. The others were balanced.

5.2.2. Trust in co-workers

This sub-theme describes trust in fellow nurses, physicians and nurse managers. Being able to trust nursing colleagues and co-workers was imperative to feeling safe and secure at work. Mutual assistance and support under stressful conditions was a key factor to support the participants’ safety.

5.2.2.1. Trust in fellow nurses

Participants experiencing that they could trust a nursing colleague to assist if needed to secure the safety of their patients was important for their patients' and their own safety. If busy with one patient, they felt it supportive to know and trust that their fellow nurses on the shift would take care of these patients in the meanwhile.

One participant said:

‘One night I was occupied almost the whole time with a seriously ill patient who had been admitted to my ward. He was in such a bad state that he should have been in intensive care. Caring for the patient did not threat my safety; not being able to tend to my other patients did. What saved me that night was the fact that I could trust my fellow nurse at the ward – that she would take care of my patients and make sure they were all right while I was busy with this one patient.’

Always having a fellow nurse close, one who could be trusted, was a great support to the participants' safety. The support involved not having to rely solely upon oneself during the shift but having a colleague to turn to with questions, assistance or cross-check when needed. In most places cross-check was a part of specific nursing procedure and was experienced as a threat to safety when they were unable to perform it. It supported the participants' safety when being able to trust the auxiliary nurses on their ward.

One participant said:

‘In this shortage of nurses there is great security for us in knowing how experienced the auxiliary nurses are – they have been on the ward for a number of years and know exactly what they are doing.’

A great threat to the participants' safety was not being able to trust their nursing colleagues. This applied when the shifts needed to be staffed with inexperienced nurses. The participants also experienced a threat to their safety if they were not able to depend on receiving assistance from other nurses if required, both on their own ward or nearby units. This applied in particular during weekends and nightshifts when staffing was at a minimum. It was also a threat to participants' safety if they failed to meet understanding or support from nurses in other wards when they looked for assistance, which lead to lack of trust in times of need.

One participant said:

‘One night I had a patient in an anaphylactic shock. As I was the only nurse on the ward, I was lucky because the nurse on the floor below had worked for us before and was prepared to help me, which was very good. If there had been a different nurse on the shift, she might not have been as ready to assist me.’

5.2.2.2. Trust in physicians

Participants needed good relations with physicians. Every participant mentioned that having an easy and secure access to doctors was an important factor in supporting their safety. A relationship of mutual professional trust between physicians and nurses was vital to ensure secure and flawless collaboration. It was imperative to the nurses' sense of security that the physicians responded quickly to their request for assistance and arrived on the spot quickly.

One nurse said:

‘Distances here are not long – neither inside the building nor between buildings – which is a big support to my safety.’

It supported safety when participants could trust that co-working physicians had faith in the nurses' professional assessment of a patient's condition, took note of their professional opinion and showed respect for their knowledge, skills and experience. Most participants felt that the physicians trusted them when they had gained work experience on the ward and were then more likely to seek their opinion and respect their contributions. This applies in particular to specialists with many years of experience who were more likely to 'respect what I have to say,' as one of the participants put it. Thus it is not only a question of professional trust, but also personal trust based on long-standing acquaintance and collaboration.

One participant said:

'It might sound strange, but one of the factors I think supports my safety the most is reliable collaboration with the physicians. When I can rely on them to answer my call for assistance right away and I know that they trust my clinical assessment of the patients.'

On the other hand, it was a threat to the participants' safety when the physicians were not available when needed. Nurses were unhappy about such conditions and believed it put their own safety as well as that of their patients in jeopardy. It was also a threat to their safety if they could not trust the professional knowledge of co-working physicians, especially when the nurses were inexperienced and insecure themselves. Another factor that did not support the participants' safety was their communication with certain physicians and the fact that they could not trust the orders physicians gave. Participants spoke of carelessness on behalf of some physicians and felt they needed to monitor their compliance with medication procedures. One participant described the way in which she kept a record of those physicians who were not doing their job properly in this respect and how often they forgot or neglected to register or give instructions. It was not until she presented this to the head physician that action was taken.

5.2.2.3. Trust in nurse managers

Participants experienced generally that they got little professional support from their superiors, except perhaps the head nurse. Only one participant saw the cooperation between nurses and nurse managers in her hospital as being very good. This participant felt there was mutual trust, respect and understanding between all parties concerned. Other participants frequently mentioned their head nurse as the only superior who provided them with support, professionally and in matters of safety.

One participant said:

‘The head nurse has worked hard at improving staffing during the morning shifts and changing the nurse-to-auxiliary nurses ratio so that the proportion of nurses is now growing and that of auxiliary nurse is decreasing.’

Another said:

‘The head nurse enhances our senses of security – she has been incredibly supportive – she listens to our complaints and works systematically towards making change and improvements.’

One participant voiced her concern over the fact that head nurses were increasingly being moved away from the wards and into financial management, as indeed all nurse managers, and that soon they would no longer be professional leaders and pillars of support. Participants described the need for the head nurse to be strong enough to face up to the demands of the nurse manager. Some felt that the head nurses had this power but some felt that head nurses did not support their staff in protesting against the demands and unrealistic ideas of the nurse manager and that was experienced as a threat to their safety.

Nurse managers were generally not regarded as being supportive of either nursing or the nurses in the ward. They were, above all, seen as the spokespersons of the hospital management with the sole purpose of cutting costs. If they found ways to economise, they would do so to the detriment of professionalism and quality of care as well as work conditions in general.

One participant said:

‘The nurse manager is only concerned with finances and the operations of the division, not the professional aspect. That is all. If the nurse manager were a business expert or an economist this would not hurt so much – but she is a nurse and one of your colleagues who thinks like that and isn’t concerned any more about the patients, their needs and their safety, and us, the nurses.’

Another participant said:

‘We had a head nurse who had a very professional attitude and introduced most of the quality work at the unit. She took a firm stand by us and we could rely on her to support us and the patients. One obviously needs to be assertive to face up to the nurse manager. She just arrives and says: ‘economise – economise – you must not spend money, not organise extra shifts – not do this and not do that, and if the head nurse does not resist then it has bad consequences for the rest of the staff. The present head nurse is not as assertive and the nurses feel that professionalism as well as staff and patient safety on the ward has deteriorated considerably. Someone has to rise and say this has gone far enough – I want this to change. It really matters for the ward and the staff who is in the head nurse position.’

The participants spoke at length about constant and extensive changes in their workplaces. Being left out of the decision-making process and preparation of change in the ward was experienced as a threat to their safety and interpreted as lack of trust from their upper managers. They felt as if their voices were not heard and that their experience and ideas were totally dismissed. They wanted to be part of a team creating a space in which they worked instead of having to obey the whimsical commands of managers who often were oblivious to the real situation. Managing through authoritative directives from above rather than collaborating with the staff was seen by the participants as posing a threat to their safety; it reduced levels of job satisfaction and professional approach which in turn would have a negative impact on the patients.

One participant said:

‘The nurse manager has not familiarized herself with the operations of the ward. She has had one meeting with us where she asked if we could simply not work a bit faster in the mornings. We felt this sentence summed it all up – the ward would be like a conveyor belt in a fish processing plant.’

Participants felt that their superiors did not pay enough attention to the main factors that supported or threatened their safety at work. They believed nurse managers did not work hard enough to hold on to experienced staff as well as providing incentives for those nurses who indeed formed the backbone of the ward. No action seemed to be taken even though the nurses had submitted their concerns in writing to the nurse manager.

Participants mentioned the ban on calling out extra staff, which is one of the cutback measures, and felt it decreased safety on their wards. They felt it was unnecessary and interpreted this as if the management did not trust them to assess the need for extra staff, because requests for extra shifts were generally met with approval. If nurses were

entrusted with staffing decisions, it would save both time and effort and the nurses would not experience this as distrust and threat to their safety.

A large meeting of nurses at one of the hospitals where the issue of nurses' shortage was addressed gave the findings unexpected verification.

In my diary I wrote:

The nurses who described their experience of the consequences of nurses' shortage at their wards got a phenomenological 'nodding' and a great applause from their fellow audience. Their experience was in such harmony with the participants experience that my supervisor, who also attended the meeting, asked if I had interviewed some of them but I had not.

5.3. Factors that support or threaten safety at the workplace

The factors that supported the participants' safety at work were having adequate, experienced and reliable co-workers, nurses and physicians, reasonable workload, work hours and work conditions. Collaboration is seen as an important factor and trust and support received from co-workers and nurse managers at all levels are viewed as important. Efficient design of the work place is supportive to their job as well as having access to resources necessary to deliver safe and quality patient care. Also having updated work guidance and documentation as well as an opportunity to learn and grow in their work. The factors that threaten safety are factors opposite to those supporting security. Having to depend on contingent and inexperienced co-workers and spending time on non-nursing activities at the price of caring for the patient, heavy workload and long work hours which make them both physically and emotionally exhausted threaten their safety. A great threat is the inability to trust their co-workers and nurse managers and unreliable collaboration.

6. Discussion and Conclusions

In this chapter I will discuss the findings of the present study in the context of the literature presented in Chapter 2. The findings will be discussed according to the two main themes and in the end I will present conclusions and implications.

6.1. Support and threats in the work environment

The findings of the present study indicate that increased nurses' shortage, workload and work hours are perceived by nurses as stressful and make them worry about their own safety as well as the safety of their patients'. Nurses' shortage seems to be a concerning issue in Iceland as in many other Western countries. Many studies that have been conducted lately add to our understanding of the linkage between staffing and outcomes. Most of them report that organisations with higher staffing levels or a richer mix of staff also have better outcomes or reported quality of patient care (Buchan, 2004).

The report of the Institute of Medicine (IOM), *To Err is Human; Building a Safer Health Care System*, implies that that up to 98,000 patients in American hospitals die each year as a result of medical errors (Kohn et al., 2003). Prevalence of adverse events or errors is estimated at 3.2%-16.6% in some Western countries and one can estimate that the prevalence is similar in Iceland (Thorsteinsson, 2005). According to the Directorate of Health (2005) in Iceland, complaints about adverse events and errors in the health care service have increased in the last couple of years, counting 244 in the year 2004 and 290 in the year 2005.

It is known that medical errors are more prevalent than recorded, but they cannot be addressed if they are not documented. The participants of the present study stated that as workload increases the documentation of any kind decreases, including recording errors

at the unit. These findings are supported by other studies where nurses perceive a great underreporting of errors (Friesen et al., 2005). According to the findings of the present study, adequate staffing, staff mix, where the staff is mixed according to skills and experience as well as reasonable work demand, are essential to increase nurses' chances of avoiding errors.

About ten to twenty per cent of all reported hospital injuries have been attributed to medication errors. My participants experienced that inadequate facilities for preparing and giving medications, such as small rooms, disturbance, similar drug containers and insufficient work processes tended to increase the risk of errors. A study of one thousand RNs in the USA supports this as it shows that the most common causes of medication errors as perceived by the participating RNs occurred when the physician's handwriting was illegible, when nurses were distracted by other patients, co-workers or events on the unit, when the nurses were tired and exhausted, when there was confusion between two drugs with similar names, when the nurse miscalculated the dose, when physicians prescribed the wrong dose, and when nurses gave medicine to the wrong patient (Mayo and Duncan, 2004). Another study shows the causes of medication errors and near errors to be wrong patient, wrong drug, wrong dose, wrong route, wrong time and omission (Balas et al., 2004). Several factors were the same as described by the participants of the present study. Medication errors strike at the heart of being a nurse; the responsibility to do well and avoid harm was intensive. The participants of the present study highlighted their need of a supportive work environment and work conditions to help escape medication errors as well as medical ones. Everyone concerned about nurses' safety equates medication errors with serious risks to nurses. The consequences of medication errors are the leading cause of death and disability (Kohn et al., 2003).

Both the physical and psychological well-being of the nurses seem to affect their safety at work. Most of the participants in present study expressed anxiety and physical symptoms

like back pain, chronic fibrosis and sleep-disorders. This is in harmony with other studies presenting factors concerning work conditions and safety in the workplace, feelings of not being in control, difficulties in collaboration and relationships with nurse manager create more stress than factors related directly to caring for patients (Biering, 2000; Sveinsdóttir et al., 2003; Bégat et al., 2005). Emotional exhaustion was also widespread among nurses. According to Biering (2000) more than half the participants felt they were emotionally exhausted. Staffing is shown to be the strongest predictor for emotional exhaustion (Gunnarsdóttir, 2005) and less staffing brings greater emotional exhaustion. The RN workforce is predominantly female (94.6%) and in Iceland 99% of RNs are women. The high proportion of women in the nursing workforce has a number of implications. Responsibilities at home may contribute to the commission of errors as family obligations may add to the long hours worked by many nurses in their professional workplace and contribute to the sleep disorders and fatigue that is associated with the commission of errors (Page, 2004).

Short rest breaks and meal periods free of responsibility are not taken for granted by hospital staff nurses. Nurses reported having a break or meal period free of patient care responsibility on less than half of the shifts they worked (Biering, 2000). Although skipping breaks and meal periods was not associated with a statistically significant increase in the risk of making an error, other studies, however, have shown that regular rest breaks and tea breaks can decrease fatigue but not necessarily decrease accident risks (Rogers et al., 2004a).

The findings indicate that the participants experience workload due to shortage of nurses. At the same time they complain about having to perform all kinds of non-nursing activities because they do not have enough assistants. The participants viewed that as threat to their safety as they have to spend time performing activities other people can do instead of caring for their patients. These findings are supported by studies conducted in other countries like the United States, Canada and Germany (Aiken et. al., 2001).

The findings of the present study show that nurses are leaving or thinking about leaving their jobs because of nurse shortage and workload. Nurses' job satisfaction and level of burnout are especially important in the current context of nurse shortages. They are also notable because of the potential impact of a large number of dissatisfied and emotionally exhausted nurses on the quality of patient care and patient outcomes and safety. There are problems in the hospital nurse workforce and low morale among hospital nurses is well known in many countries and many of the nurses plan on leaving their jobs within the coming year (Aiken et al., 2001). Losing specialised and qualified nurses from the bedside is a great loss for the patients, the hospitals and society as a whole.

6.2. Trust and distrust

Trust is an important feature regarding nurses' safety according to the participants of the present study. To be able to ensure patient safety participants have to cooperate with nurses, nurse-managers, physicians and other co-workers. Collaboration reflects trust, both personal and professional. Trustworthy persons support safety, but persons who the participants experience as untrustworthy threaten their safety and the safety of their patients.

Most of the participants experienced trust and support from their co-workers. This is supported by Biering's study (2000) where that the great majority (78.5%) of the participants said that they received support from other nurses and more than half of the participants said that they received support from head nurses. Participants working at understaffed workplaces felt they got more support from other staff nurses than in workplaces which were not understaffed. This is in harmony with the findings of Gunnarsdóttir (2005) whose study findings highlight the importance of good collaboration between nurses for better patient outcomes and cooperation and trust in working relationships as well as co-ordinated care supports the nurses in providing quality patient care.

On the other hand a great threat to the nurses' safety in the present study was the inability to trust their nursing colleagues. This applied in particular when the participants were working with inexperienced nurses and nurse students who were less familiar with the nursing units and the patients. Although use of temporary employees can increase the number of nurses available to care for patients, it can also represent a threat to patient safety. IOM points out that permanent nursing staff in hospitals describes the use of agency nurses as hindering continuity of care and reducing quality of care. Medical errors have been shown to increase with the number of shifts worked by temporary nursing staff and care by 'float' RNs increases the risk for central line-associated blood-stream infections (Page, 2004). The importance of reducing reliance on staff which goes from one place to another is also stressed in a survey conducted by the ICN Workforce Forum (2004) as well as the importance that the majority of positions be full-time for the continuity of care and increased quality of care and patient safety. This is congruent with the findings of the present study as the participants experienced that many of the nurses coming from the temporary service agent threatened the safety and added a workload and job stress to the permanent staff on the ward.

The importance of good and supportive relations and collaboration with physicians and a mutual respect and trust between nurses and physicians was strongly expressed by the participants as important component in nurses' safety. The limited existing evidence indicated that most nurses experience positive relationships with their physician colleagues but there were also indications that not all nurses experience positive relationships with physicians (Page, 2004). Aiken et al. (2001) reported that nurse-physician relationships do not appear to be as problematic as popular opinion might suggest. A vast majority of the nurses in the five countries participating in their study believed that they work with physicians who provide high-quality care and with nurses who are clinically competent. According to Biering (2000) more than half of the participants said that they received support in their work from the physicians and

Gunnarsdóttir (2005) indicates the existence of good working relationships between nurses and physicians in general. Only 7.4% of the participants expressed some dissatisfaction and none was very dissatisfied. These findings were in concordance with the lived experiences of the participants in the present study as good nurse-doctor relationship, and support and fast and secure access to doctors when needed increased their safety and enhanced nurses' ability to provide safe patient care. The nurses' status within a hospital matters also as does their credibility and power when they need to mobilize hospital resources quickly, including the ability to bring physicians to the bedside (Clarke and Aiken, 2003). The comments of the participants in the present study also support this.

The findings of the present study express the nurses' lived experience of lack of support from nurse managers. As prescribed by law, the director of nursing is reliable for nursing care provided at a health care organization and therefore only nurses have permission to manage the nursing care. It is interesting to observe how strongly the participants of the present study felt the lack of support, trust and professionalism among nurse managers. In their opinion, the nurse managers were mostly concerned with the financial management of the nursing division and focused above all on saving money to the detriment of nursing quality and patient and staff security. In studies conducted by Gunnarsdóttir (2005) and Biering (2000) the managerial behaviour at the unit level was generally received as supportive, but limited support from nurse managers is viewed as a gap between senior management and staff. One reason for the loss of trust on behalf of the nursing staff is believed to be the change in the roles of nurse managers which affects their relationships with staff nurses. These changes result in less communication and increased distance between staff nurses and nurse managers. The nurses need to trust that someone who understands their practice is advocating at the highest level of the organization for what they are doing and what they stand for, safe and quality patient care (Page, 2004).

Some of the participants expressed their disappointment by the lack of support from nurse managers when implicating large changes in the activity and design of their units and the inefficiency of the managers in change management. They expressed their worries about not being consulted on daily routines in their units, especially when implicating changes, and not being heard when trying to explain their safety needs to the nurse management. In the studies of Biering (2000) and Gunnarsdóttir (2005) the findings show that RNs were most dissatisfied when nurse managers did not consult with staff on daily problems and procedures. These findings are supported by the findings of another staff survey at the largest hospital in Iceland, indicating dissatisfaction with the level of staff influence on decision-making at the hospital (Directorate of Health, 2002). Nurses want and need to have an active voice in decisions that affect their practice and environment (Rogers, 2005). Mutual trust is a critical component of any change process. The sharing of perceptions and feelings and greater worker involvement in decisions enhance trust in the organizations. Trust must be an integral and coherent part of the organizational culture if change is to be implemented effectively and sustained (Laschinger et al., 2000).

My participants stressed that they did not feel evaluated or trusted by nurse managers. Distrust is demonstrated by the nurse managers when their permission has to be obtained before extra staff is called out, when staff nurses believe that staffing has reached the bottom line of safety. According to Brown (2002) this has to do with the managers' assumptions about people as the nurses are trusted with decisions affecting the lives of patients but are distrusted when it comes to valuing the need for extra staff to secure patient as well as their own, safety.

Trust between staff and management is a crucial ingredient of safety and quality. Staff nurses and their managers must cooperate to provide care for patients. Staff nurses are responsible for providing expertise in patient care and managers are responsible for furnishing the resources needed for this care. If managers cannot provide these resources

as a result of staff shortages, fiscal restraint or inadequate supplies, staff nurses may not be able to keep their side of the agreement (Laschinger et al., 2000). Generally speaking, the participants of the present study experience that nurse managers are not furnishing their work environment with the resources needed for their safety and that of their patients. They also miss the support and the care that nurse managers used to provide and feel like they have abandoned them by taking the stand with the financial administration instead of the profession, nursing and the nurses as their obligations demands. Nurse managers' relationships with nursing staff need to be characterized by care, concern and a sincere regard for their welfare as benevolent nurse managers see the potential in their staff and help them grow professionally. When managers notice and express appreciation for the contributions of staff, these RNs are much more likely to reciprocate and 'go the extra mile' (Rogers, 2005).

6.3. Conclusions

The findings of the present study highlight how the nurses in the present study defined their safety in direct connection to their patient's safety. The participants reflected strongly their responsibility for their patients' safety and in order to be able to do so they realised that they have to depend upon a supportive work environment. None of the participants feared not being able to handle a possible situation due to lack of knowledge. What worried them, however, was not being in charge of their own environment. The participants readily considered themselves as patient advocates and their surveillance. Their main duty, both ethically and professionally, was to protect the patient from any harm and to be able to do so factors like staffing, workload and work environment had to support this duty. Participants experienced safety when they got support from the working environment to deliver safe patient care. They wanted to be able to monitor and evaluate the patients' condition around the clock and act instantly if there were life-threatening changes to protect their patients from any harm. The participants also realized that if

something bad happened to the patient, their professional life could be in danger as well as their personal life and welfare.

If nurses experience their work environment as supportive to their safety, they will feel secure and more likely to reach a professional status, as they will be able to deliver quality patient care. Conversely, if they see their work environment as threatening their safety, they become insecure and behave accordingly. It was more likely that nurses would experience their work environment as supportive where their knowledge, skills and experiences were appreciated and where they gained encouragement from nurse managers. On the other hand, if the nurses felt the work environment was not supportive, they were more likely to have difficulties in becoming professional nurses or as van Manen (1999) states 'you will become the space you are in.'

6.4. Implications

This study has implications for nurses, patients, nurses' associations, nursing management, and nursing research.

A deeper understanding of the factors that support and threaten safety in nurses' environment can contribute to ongoing discussions about patient safety. The study can also be an input into the INA's effort to increase nurses' safety in their workplace. Now that there is evidence for the relationship between certain patient outcomes and nursing staffing, one can argue that this study can give RNs in Iceland credibility and increase their negotiating power to achieve long-sought-after improvements in their workplaces. Nurse administrators can use the results to support the nursing profession at the health care organizations and make demands on behalf of their staff nurses for a safer workplace.

For further research, it would be interesting to examine the lived experiences of nurse managers of patient and nurse safety in their work environment as well as their lived experience about trust and distrust by their staff nurses.

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Auðna Ágústsdóttir
Division of Nursing Education and Science
Landspítali – University Hospital
Fossvogur

Reykjavík, 7 October 2005
Ref 16 EE/ks

Re: Request 14/2005 to the Ethics Board for Administrative Research at
“Nurses Lived Experience of Workplace Security;
What Factors in the Work Environment Threaten or Support their Security”

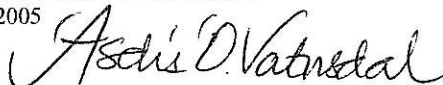
We have received the accompanying documents dated 15 September last and find that they adequately fulfil the Board's requirements.

We wish you every success in your research.

Respectfully, on behalf of the Ethics Board for Administrative Research,

, chair

Translated from the Icelandic by
Ásdís Ó. Vatnsdal, MA (Hon.s), M.Litt.
Department of English
Kópavogur Grammar School, Iceland
28 March 2005



DATA PROTECTION AGENCY

Rauðarárstígur 10 * 105 Reykjavík

Tel: 510 9600 Fax: 510 9606

E-mail: postur@personuvernd.is

Website: personuvernd.is

Aðalbjörg J Finnbogadóttir
Melabraut 54
170 Seltjarnarnes

Reykjavík, 5 September 2005

Ref: S2587/2005 ISE/-

This is to confirm that the Data Protection agency has received a notification in your name regarding the processing of personal information. The notification has been given the number S2587/2005 and a copy of it is enclosed.

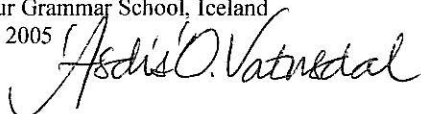
All notifications forwarded to the Data Protection Agency are automatically published on the Agency's website. It should be noted that the reception and publication of notifications does not mean that the Data Protection Agency has reached a conclusion on their contents.

Respectfully,

Ingvi Snær Einarsson

Enclosed: Notification No. S2587/2005 on the processing of personal information.

Translated from the Icelandic by
Ásdís Ó. Vatnsdal, MA (Hon.s), M.Litt.
Department of English
Kópavogur Grammar School, Iceland
28 March 2005



Aðalbjörg Finnbogadóttir
Nurse
Melabraut 54
170 Seltjarnarnes

, 15 September 2005
Ref: 16

Re: Research project: "Nurses' Lived Experience of Workplace Safety; What Factors in the Work Environment Threaten or Support their Safety"

This is with reference to your letter of 28 August last where you apply for permission for three to four nurses, currently employed by _____ to provide patient care, to participate in the research project "Nurses' Lived Experience of Workplace Safety; What Factors in the Work Environment Threaten or Support their Safety": This research is your final project for the Master's degree in nursing from the Royal College of Nursing Institute, University of Manchester. The objective of the research is to deepen the understanding of the way in which nurses experience their own workplace safety. The research is qualitative and its findings are intended to bring to light nurses' experience of safety and threats to their safety in their own environment.

The undersigned hereby grants her permission for the above mentioned participation of three to four nurses working at _____ in the research project in accordance with the enclosed research plan and sample introductory letter to participants, provided the conditions of the Ethics Board of _____ have been met and the Board has granted its permission. At the same time, the strictest confidentiality must be exercised concerning all research-related data.

The outcome of your research might be of importance to safety issues at _____. Therefore, you are kindly requested to present your findings at the Hospital once your project has been completed.

Wishing you all the best in your work.

Respectfully,

Director of Nursing

Copy: _____, secretary of the Ethics Board for Administrative Research,

Translated from the Icelandic by
Ásdís Ó. Vatnsdal, MA (Hon.s), M.Litt.
Department of English
Kópavogur Grammar School, Iceland
28 March 2005



Appendix 4

, 4 October 2005

Aðalbjörg J. Finnbogadóttir
Melabraut 54
170 Seltjarnarnes

Re: Application for permission for nurses to participate in research

Good day!

Thank you for your application for permission for one or two nurses employed in patient care at the _____ to participate in your research:
Nurses' Lived Experience of Workplace Safety; What Factors in the Work Environment Threaten or Support their Safety.

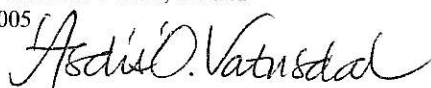
I have familiarised myself with the research objective, methods and the theories underlying the gathering of data and its analysis as well as the handling of the data obtained. I hereby permit the research.

Wishing you success in your final project towards the Master's degree in nursing.

, Chief Nursing Executive

Copy: _____, chair of the _____ Ethics Board
_____, Chief Medical Executive

Translated from the Icelandic by
Ásdís Ó. Vatnsdal, MA (Hon.s), M.Litt.
Department of English
Kópavogur Grammar School, Iceland
28 March 2005



Aðalbjörg J. Finnbogadóttir
Melabraut 54
170 Seltjarnarnes

, 3 September 2005

Re: Reply to your application for permission for nurses to participate in the research "Nurses' Lived Experience of Workplace Safety; What Factors in the Work Environment Threaten or Support their Safety"

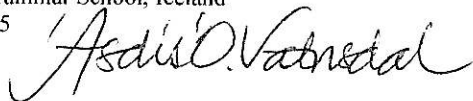
On behalf of the _____ I hereby grant
_____, student at the Master's level in nursing at the RCNI, University of
Manchester, permission to contact nurses employed by the
_____ in order to request their participation in the above research.

The project is both exciting and important and it will be interesting to follow up on the results and the conclusions reached by the Master's student.

Best regards,

_____, Director of Nursing

Translated from the Icelandic by
Ásdís Ó. Vatnsdal, MA (Hon.s), M.Litt.
Department of English
Kópavogur Grammar School, Iceland
28 March 2005



Appendix 6

Madame Nurse
Aðalbjörg J. Finnbogadóttir
Melabraut 54
170 Seltjarnarnes

, 2 September 2005

Regarding your letter of 28 August last on the participation of nurses currently employed at in research which you intend to conduct as part of your Master's studies.

Your request was submitted to the executive board of yesterday and it was decided that nurses in the employment of should be allowed to participate in the research you have planned with the proviso that their participation will not be traceable.

With regards,

Director of Nursing,

Translated from the Icelandic by
Ásdís Ó. Vatnsdal, MA (Hon.s), M.Litt.
Department of English
Kópavogur Grammar School, Iceland
28 March 2005



Introductory letter to participants on the scientific research

“Nurses’ Lived Experience of Workplace Safety”

Dear nurse,

Following our conversation, you are hereby invited to take part in the research on “*Nurses’ Lived Experience of Workplace Safety*” which is my Master’s degree dissertation. My supervisor in this work is Ms Auðna Ágústsdóttir.

The aim of this research is to describe the way in which nurses experience safety in their places of work, i.e. which factors in their work environment either threaten or support/enhance their safety.

Selection of participants

In order to obtain the most reliable data, I am looking for participants who are capable of sharing their experiences of workplace safety (purposeful sampling) in such a manner that it deepens the researcher’s understanding of the phenomenon.

The participants I am looking for as potential interviewees are nurses currently involved in providing patient care in four Icelandic hospitals. The chairs of the district sections to which these hospitals belong have nominated at least three nurses who meet certain criteria concerning workplace, age and experience. From the group nominated by each of the four hospitals, one nurse has been selected for participation in the research. In order to collect further participants, I make use of a “chain referral sample” – i.e. each participant suggests at least three nurses and a further selection will be made from that group. Thus it is possible to protect the anonymity of participants and their places of employment. Efforts are made to ensure a wide span in biological age, years of actual employment and places of employment.

What is involved?

Your participation means giving me an interview which will take about one hour. We will decide together on the time and the place for our talk about your experience of workplace safety. The interview will be recorded on a magnetic tape, provided you give your consent. The interview will then be transcribed on to paper without any distinguishing marks. If we touch on issues in the interview that you would like to keep confidential, your wish will be respected. *It should be made perfectly clear that although you have agreed to participate in this research you have every right to change your mind and terminate your participation even though the interview has begun.* You are free to refuse to answer individual questions or discuss particular issues. I also wish to stress that I will observe the strictest confidentiality on participants in this research and all information given in the interviews will be treated in confidence. The ethics board of Landspítali University Hospital has authorised this research as well as the directors of nursing in the hospitals concerned.

Access to recordings and interview transcripts

Each participant will be given a pseudonym and all research data, including the tape cassettes, labelled with this pseudonym in order to secure the anonymity of participants. All research data will be stored in a locked cupboard in my home while I am working on this study. When the work has been completed, these recordings will be destroyed.

Appendix 7

Risks and advantages

In my opinion, the principal advantage of participating in this research is the opportunity for nurses to express themselves about their experiences concerning safety in their own places of work so that they may possibly become better aware of the phenomenon and thus contribute towards increased patient and nurse safety in hospitals.

There is very little risk, in my opinion, since anonymity will be strictly observed.

Please contact me when you have made up your mind your participation in this research or if you wish further information or clarifications of the research and/or your participation.

With regards,

Aðalbjörg J. Finnbogadóttir, nurse
Icelandic Nurses' Association
Suðurlandsbraut 22
108 Reykjavík
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If you have questions concerning your rights as participant in this scientific research or should you wish to withdraw from it, you may turn to the Ethics Board for Administrative Research and Landspítali University Hospital, Eiríksgata 5, 101 Reykjavík. E-mail: karolins@landspitali.is

Appendix 8

Place and date

Informed consent for participation in scientific research

“Nurses’ Lived Experience of Workplace Safety”

I, the undersigned, agree to participate in the research stated above.

The introductory letter and informed consent form exist in duplicate. The participant keeps one copy of each document for information on the details of his/her part in the research.

Date:

Participant

I declare that the above consent has been obtained in the appropriate manner.

Aðalbjörg J. Finnbogadóttir
Researcher