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Family members' perceptions
of nurse caring behaviours in the intensive care unit

par

Lisa-Ann Connell

Faculté des sciences infirmières

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présenté par
Lisa-Ann Connell

a été évalué par un jury composé des personnes suivantes:

Josée Côté, inf. Ph.D., présidente du jury
Judith Ritchie, inf. Ph.D., membre du jury
Sylvie Cossette, inf. Ph.D., directrice de recherche

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Résumé

La présence de membres de la famille dans les milieux de soins critiques a augmentée graduellement au cours des dernières années. La présente recherche visait à décrire la perception que les membres de la famille avaient eu à l'égard des comportements de *caring* des infirmières lors de leur visite aux soins intensifs. Plus spécifiquement, ce projet avait pour but d'explorer les différences entre les perceptions de membres de la famille dont le proche était hospitalisé pour une blessure traumatique versus une maladie grave non-traumatique. Les différences ont aussi été examinées selon certaines caractéristiques personnelles d'un membre de la famille soit leur genre, leur expérience antérieure de visites aux soins intensifs, leur âge et leur perception de la gravité du problème de santé de leur proche. Le cadre de référence de cette étude était basé sur les facteurs caratifs proposés par Watson (1985). L'importance et la satisfaction des membres de la famille à l'égard des comportements de *caring* de la part des infirmières ont été mesurées par les versions française et anglaise adaptées du Caring Behaviors Assessment (CBA) (Cronin & Harrison, 1988). Les données ont été analysées en utilisant les techniques d'analyse MANOVA et des tests de corrélation de Pearson. En général, les résultats indiquent que les membres de la famille rapportent des degrés d'importance et de satisfaction similaires selon que leur proche était hospitalisé pour une blessure traumatique ou une maladie grave non-traumatique. Peu de différences émergent selon les caractéristiques personnelles des membres de la famille. Un coefficient de corrélation significatif (0.36, $p = 0.012$) existe entre la perception des membres de la famille de la gravité du problème de santé, et l'importance de la dimension 'réponses aux besoins'. Par ailleurs, les comportements de *caring* regroupés dans la

dimension 'réponses aux besoins' ont été perçus comme étant les plus importants et les membres de familles étaient très satisfaits des comportements de *caring* des infirmières. Cette étude fournit des pistes pour l'enseignement, la clinique et la recherche et met en lumière la perception des membres de la famille des soins infirmiers humains chez des proches hospitalisés dans une unité de soins intensifs.

Mots-clés: *Caring*, famille, soins intensifs, trauma, satisfaction

Abstract

Family member presence in critical care environments has been gradually increasing over recent years. The aim of this study was to evaluate family members' perceptions with regard to nurse caring behaviours while in the intensive care unit (ICU). Of particular interest were the perceptions of family members of different diagnostic groupings (critically injured "trauma" versus other critical illnesses), and socio-demographic characteristics (gender, previous experience in an ICU, age and perception of illness severity). The conceptual framework was based on Watson's 'carative' factors. Family members rated the importance with nurses' caring behaviours using English and French versions of The Caring Behaviors Assessment (CBA) (Cronin & Harrison, 1988). The data were analyzed using MANOVA and Pearson Correlation Coefficients. Family members from both groups reported similar degrees of importance and satisfaction with nurse caring behaviours. Few differences emerged based on socio-demographic characteristics. Similar to studies using the CBA on patients, behaviours belonging to the 'human needs assistance' dimension were perceived as most important indicators of caring. A significant positive correlation (0.36, $p = .012$) was found between family members' perception of illness severity and the importance of the 'human needs assistance' dimension . This study provides some indications for critical care nursing (education, training, research) from the unique perspective of the family member, and sheds light on the particular nurse caring behaviours that are important to them during a time of crisis.

Key words: Caring, family, intensive care, trauma, satisfaction

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Dedication

This thesis is dedicated to the many family members who have the difficult task of accompanying a loved one through an admission and stay in an intensive care unit.

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Chapter I – Research Problem

Trauma is a major cause of hospitalization of people under 45 years of age worldwide. In 2000-2001 almost 9,000 injuries in Canada were classified as severe and required hospital admission. These injuries were from such causes as motor vehicle collisions, unintentional falls, electrocutions and purposely inflicted injuries or other incidents (National Trauma Registry, Canadian Institute for Health Information [CIHI], 2001). Many of these injuries required patients to be admitted to an Intensive Care Unit (ICU) for up to 2 weeks (CIHI). This represents a considerable length time for family members to be in interaction with the ICU caring team, and provides an opportunity for nurses to interact in ways that are meaningful to family members during this time of crisis (Johansson, Hildingh & Fridlund, 2002). With the increased opportunities for nurses to interact with the family, it is important to better understand how and what nurses say and do that could enhance the family satisfaction with nursing care. The perspective of the family can guide us to attitudes and behaviours that are beneficial and positive from their perspective.

There are particularities of traumatic (trauma) injuries versus other critical illnesses for the people and families involved. For instance, the primary cause of the trauma is often violent, and in some cases may be related to crime. The specific events surrounding the traumatic injury may lead to intense emotional reactions, such as perceived threats to a person's physical and psychological well-being (Ergh, Rapport, Coleman, & Hanks, 2002; Everstine & Everstine, 1993). Other variables may contribute to the experience of trauma patients' family members as well. These include the lack of a concrete prognosis, multiple treating teams and terminologies used between health care professionals, and the appearance of a 'stable' patient (cardiovascular stability on monitor, patients who appear un-injured and appear 'to

be sleeping’) versus their understanding of very serious or potentially life-threatening injuries (Leske, 2003). It has been said that the more severely a trauma patient is injured, the more their family members become patients as well (Hopkins, 1994).

A large body of research has been developed pertaining to the family presence in the critical care environment (Meyers et al., 2000, Pochard et al., 2001). Elements such as family needs, stressors, and functioning (Kosco & Warren, 2000; Lange, 2001; Leske, 2003; Johansson, Hildingh, & Fridlund, 2002) have been studied, as well as the family response, and caregiver and family support (Ergh, Rapport, Coleman, & Hanks, 2002; Gardner & Sibthorpe, 2002; Grossman, 1995). Though family members experience a degree of emotional upheaval when their loved one is admitted to an intensive care unit, little is known about what would convey a sense of caring to them. However, given that professionals see the family members in a time of severe stress and disorganization, there is often a high need for reassurance, information, visitation, and emotional support (Halm, Myers & Bennets, 2000; Henneman & Cardin, 2002; McClowry, 1992; Wilkinson, 1995). Some authors (Marck, 2000; Nussbaum, 2003) have advocated that a humanistic approach and positive interactions with nurses in the critical care setting are particularly important in order to counterbalance the technologies that are present and the complex care required. We know from existing studies that a holistic and caring approach is in fact what ICU nurses aspire to provide when caring for their patients and families (Wilkin & Slevin, 2004). However, research concerning the trauma patients’ family response to a caring approach is not abundant. What has been particularly overlooked, except for a few studies, are comparisons of family

members of trauma patients to family members of non-trauma groups. Such comparisons could highlight whether there are in fact particularities of this population that warrant special consideration in their care. In the investigator's critical care clinical experience, family members of trauma patients seemed to rate differently the importance of their priorities for their care, and to have differing degrees of satisfaction with their interactions with nurses than did family members of non-trauma patients.

In addition to the hypothesized differences between family members of the two patient groups, previous researchers have suggested that differences in socio-demographic characteristics may have an effect on the variables of interest (importance and satisfaction) for the current project. For instance, previous researchers reported that factors such as older patients (Chang et al., 2003; Spooner, 2003), gender and experience with hospitalization (Cronin & Harrison, 1988; Marini, 1999) might impact perceptions of importance or satisfaction with care elements. Therefore, along with the types of patient diagnosis (trauma vs non-trauma groups), the family members' gender, previous experience in an ICU, age, and perception of injury or illness severity were also examined in the present study.

Theoretical orientation

Caring has been widely accepted as a central concept to the discipline of nursing (Leininger, 1988; Wallis, 1997; Watson, 2002). There has been an overall consensus in nursing literature about the need to include and prioritize caring (Harrison, 1995; Larrabee & Bolden, 2001), and patient and family-centered care (Powers & al., 2000) when evaluating and planning how health care is provided. For Watson (1985) caring was defined as an interpersonal process that involves

concern and the desire to assist another to achieve mental, physical, socio-cultural and spiritual well-being. Therefore, patient and family members would feel that the nurse was interacting in ways that relate a sense of concern and care to assist him or her in achieving these goals. As an essential component of the relationship between caregiver and care recipient, many researchers focused on *patient* perceptions of importance and satisfaction with caring attributes (Larrabee & Bolden, 2001; Larson & Ferketich, 1993; Von Essen & Sjoden, 2004). The amount of research that has looked at the caring relationship between nurse and family member has been evolving more slowly. For the present study, the variables of ‘importance’ and ‘satisfaction’ with caring attitudes and behaviours were both assessed from the family member perspective as an evaluation of specific caring interactions. A better understanding of what indicates caring to family members, and with which behaviours of caring they are satisfied, will enrich the sphere of nursing literature that incorporates the perspective family members in the intensive care unit.

Purpose of the study

The purpose of this study was to evaluate perceptions of importance and satisfaction of nurse caring behaviours from the perspective of family members in the Intensive Care unit (ICU). Of particular interest was whether the family members of trauma versus non-trauma patients had different perceptions of nursing behaviours that indicate a sense of caring for them. The study also sought to describe the role of personal characteristics on the family members perceptions with care related to the seven dimensions of caring of the Caring Behaviors Assessment (CBA) Tool (Cronin & Harrison, 1988).

Research Questions

1. Do family members of critically injured (trauma) vs. critically ill patients differ in their perceptions of importance and satisfaction with nurse caring behaviours?
2. Do family members' gender, prior experience in ICU, age and perception of patient illness severity modify their perceptions of importance and satisfaction with nurse caring behaviours?

Chapter II - Literature Review

This chapter begins with a review of literature most pertinent to the current study. First will be research related to families of patients in the critical care setting, and different diagnostic groups (trauma vs. non-trauma) that may have particular requirements in ICU. Following this, the conceptual framework, including Watson's Theory of Human Caring (1985), is presented, and followed by previous studies that have used the CBA to evaluate caring. Lastly, research pertaining to the impact of socio-demographic characteristics will be presented. The review covers the literature up to 2004 that contributed to the design and data collection of the present study that lasted from late summer to the end of 2004. Circumstances dictated that the final writing of the thesis was completed in 2009, with an update to the literature for the discussion chapter.

Family Presence in Critical Care

Patients in the ICU have reported that the presence of their loved one has provided great relief, comfort, and security to them. Some have even attributed their recovery partly to their families being with them during this critical phase of their hospitalization (McKinley, Nagy, Stein-Parbury, Bramwell, & Hudson, 2002). Indeed, the increased presence of family members has been accepted as a positive evolution in care practices in a clinical area that used to be highly restricted and controlled (Chow, 1999; Giuliano et al., 2000).

In the past two decades, the body of literature surrounding increased family presence and involvement in ICU has increased considerably. Some of the major themes have involved the impact on the patient's family including stress, functioning and coping strategies (Hauber & Testani-Dufour, 2000; Johansson, Hildingh, & Fridlund, 2002; Leske, 2003; McLowry, 1992), and ethical questions

surrounding their decision-making capacity during a time of crisis (Pochard et al., 2001). There are common stressors that have been established in a number of studies pertaining to family members in general in the ICU. These include sudden role changes, disruption in routines, financial concerns, fear of loss of their loved one, and an uncertain outcome (Bournes & Mitchel, 2002; Gardner & Sibthorpe, 2002). There have also been a large number of studies since the 1980s that have focused on articulating the needs of family members in the ICU (Lee, Chien, & MacKenzie, 2000; Mathis, 1984; Takman & Severinsson, 2003; Wilkinson 1995). These studies have reported that families' needs include accurate and prompt information, remaining near their loved one, and their need to visit their loved one as quickly as possible. Also, frequent visitation of the caring team to provide emotional support, comfort and hope was reported.

Research on family presence in the ICU has focused to a great extent on the above themes. Less research was found that looked at the perceptions of family members of different diagnostic groups within the ICU setting. It is possible that the health problem for a patient's admission to an ICU could have an effect on the family members' needs, priorities and perceptions of care.

Family Members of Critically Injured (Trauma) Patients

There is reason to believe that the family members of trauma patients may have different perceptions and priorities for their care than family members of patients in other diagnostic groups. A review of the literature to illuminate these hypothesized differences revealed some possible explanations. Hopkins (1994) suggested that the circumstances of traumatic injuries and death often generate in the patients' family members a review of their own sense of mortality, and may lead to

strong feelings of guilt or anger stemming from the circumstances surrounding the injury. Such differences between family groups may also exist because of the complexity of injuries (patients are often multiply-injured) and the treating teams' difficulties in giving a concrete prognosis (Gardner & Sibthorpe, 2002; Leske, 1992). Because of multiple-system injuries, multiple teams interacting with the family may make it difficult to obtain consistent information (Bond, Draeger, Mandelco, & Donnelly, 2003). Additionally, trauma patients are susceptible to complications of their injuries associated with high morbidity such as systemic inflammatory response syndrome (SIRS), sepsis, and adult respiratory distress syndrome (ARDS) (Keenan, 1995) as well as poor outcomes associated with the injuries (traumatic brain injury or TBI). Other factors that may differ in association with traumatic events include the suddenness of the event, and the unexpected losses felt by the patient's family (Leske, 1998). These may be direct (loss of life or limb) or perceived (loss of role, vulnerability). Although the clinical realities of trauma and non-trauma patients and families may differ, there are very few research reports comparing the needs or experiences of family members of these two groups.

In a Canadian study, Engli and Kirsivali-Farmer (1993) compared eight family members of patients with an acute brain injury (including patients with cerebral vascular accident (n = 1) / evacuation of cerebral blood clot (n = 2) / aneurysm (n = 3) or closed head injury (n = 2)), with six family members of patients without an acute brain injury (including heart failure (n = 1), chest pain (n = 1), neck surgery (n = 1) and pneumonia (n = 3)). The purpose was to evaluate differences in the degree of importance of needs of family members in the two groups. They reported this study to be a replication of the original study by Mathis (1984) as well

as expanding the study by examining whether the needs were perceived as being met, and by whom. Family members were asked to establish the degree of importance attributed to personal needs, defined as biopsychosocial requirements that may be perceived by them during the time spent in the ICU. When ranking the ten most important need statements of the two groups, the authors found a significant difference in the degree of importance of the personal needs. The top three need statements for the 'with acute brain injury' family members group were 'to know the prognosis', 'to have questions answered honestly' and 'to be assured that the best possible care is being given to the patient'. The three top need statements for the 'without acute brain injury' group were 'to know how the patient is being treated medically', 'to have someone be concerned with the relative's health', and 'to have explanations that are understandable'. However, in both groups all three top needs related to the provision / acquisition of information. The remaining seven need statements were similar for both groups, and were also related to the need for information. It was suggested that family members of patients with an acute brain injury perceived different personal needs, perhaps due to the unexpected nature of the injury or the uncertainty in outcomes. The authors cautioned that, although the differences found between the family groups were important, most of the needs were similar and related to 'information'. Family members also reported that it was most often the doctor who fulfilled these needs. The authors suggested that this could have been due to a societal perception of the (in)-ability of nurses to fulfill these needs. Although this study had limitations including a very small sample size, the authors concluded that the role of the nurse

as a patient and family educator, including the knowledge of the needs and priorities of family members in this setting, should be facilitated.

Leske's (2003) descriptive study compared three groups of family members (n = 127) after either a traumatic injury (motor vehicle collision (MVC) or gunshot wound (GSW)) or a surgical intervention (coronary artery bypass graft (CABG)) to their loved one. Family members were surveyed within two days of their admission to an ICU to compare stresses, hardiness, and outcomes. Overall, the family members' hardiness, well-being, and adaptation were similar among the three groups. However, family members of patients who had experienced a GSW reported significantly more prior stress (evaluated as stress in the year before the event) and fewer coping strategies than the two other family groups. Leske suggested that prior stress may influence family adaptation as reflected by a smaller range of coping strategies. Therefore information about prior family stresses could be an important indicator of the amount of assistance a family would need. She further suggested that the families in this sample seemed initially to be managing the stressful event of ICU hospitalization well, given that the overall coping scores were higher than the national average. As this is the only study comparing family members of traumatically injured patients with other critical care groups, it seems necessary to further investigate the potential differences in experiences, needs and outcomes of critically injured (trauma) and critically ill (non-trauma) family members.

In summary, existing research has begun to clarify that family members in general experience role changes, disruption in routines, financial concerns, fear of loss of their loved one, and uncertain outcomes when in the critical care unit. The

few studies related to the family members of diverse diagnostic groups in the ICU have found that family members of patients may experience different ranges of coping strategies, and rank their personal needs differently. Therefore, family members of separate groups may have experiences that could influence their perceptions and priorities of health care services and in particular, nursing care.

Conceptual Framework

Watson's Perspective on Caring

The conceptual framework for this study is based on Watson's 'carative' factors (1985). Watson (1985) views caring as an interpersonal process involving concern and the desire to assist the other person to achieve mental, physical, socio-cultural and spiritual well-being. She has put forth that caring is a moral imperative for nursing, and is therefore an essential component in the professional relationship between nurse and patient that allows therapeutic goals to be achieved. The major conceptual elements of her model include the 'carative factors' (ten principles that aided in defining the 'core' aspects of nursing), the 'transpersonal caring relationship', which stresses the concern for the subjective meaning of another, seeking to connect with the spirit/soul through the process of caring, and the opportunities or occasions for caring, defined as the 'caring moment'. Through attitudes and behaviours that are felt to be beneficial and positive, nurses can convey their caring and concern for the well-being of the patient and family. These conceptual elements are incorporated into the instrument, the CBA, used for the study (Cronin & Harrison, 1988) which measures the importance attributed to nurse caring behaviours. Watson (2002) also indicated that nursing instruments developed to measure satisfaction may serve as quality indicators for caring, thereby providing

the empirical evidence necessary in an era of evidenced-based practice and outcome demands.

Satisfaction has been established as an outcome indicator of the quality of health care services, and is increasingly used and evaluated as an indicator of quality care in the literature (Grenier, 1998; Harrison, 1995; Larrson & Larrson, 1999; Spooner, 2003).

Satisfaction reflects the opinion or value attributed to the interaction from the patient or family member's perspective. Since satisfaction with nursing interactions or behaviours often reflects the patients' or family members' opinion of the entire hospital experience, its evaluation occurs regularly in research on care quality.

Authors such as Yellen, Davis and Ricard (2002) support the position that patient satisfaction is the ultimate validation of quality of care. They argued that interpersonal care is a process that must meet individual or societal expectations. In a study of 130 ambulatory surgical patients, they found three components of nursing interactions that contributed to patient satisfaction: professionally competent nursing care, availability of the nurse in the interpersonal relationship, and humaneness of the nurse in the interpersonal relationship.

Research on Caring

There has been a vast amount of research on the many aspects of caring throughout the literature over the last three decades, much of which began in earnest with theories and concepts of caring put forth by various scholars (Leininger, 1988; Watson, 1988). The large body of nursing literature on caring includes assessments and commentary on the theoretical backing, clinical application, and ways to evaluate caring. More recently, various studies have also looked at the different

perspectives of caring (from patients, family members and health care professional) with differing results (Baldursdottir & Jonsdottir, 2002; Gagnon, 1992; Lynn & McMillen, 1999; Valcourt, 2000; Wolf, Miller & Devine, 2003). Studies that have evaluated the importance of caring behaviours with nurses and the family members were few, and comparative in nature (Harrison, 1995).

The following section has incorporated research that was most pertinent to the current study. Particularly, this section includes studies that used the Caring Behaviors Assessment (CBA) (Cronin & Harrison, 1988) which was the first tool assessing nurse caring reported in the literature. The CBA consists of 63 items that are grouped into seven sub-scales (dimensions) of caring based on Watson's carative factors. The dimensions of caring appraised are 1) humanism / faith / hope / sensitivity, 2) helping/trust, 3) expression of positive or negative emotions, 4) teaching/learning, 5) supportive / protective environment, 6) human needs assistance and 7) existential / spiritually supportive nurse caring behaviours.

Research on Caring using the Caring Behaviors Assessment tool

The original study using the CBA was by Cronin and Harrison (1988). The purpose of their study was to identify nursing behaviours that were perceived as indicators of caring in a population of coronary care unit (CCU) patients. At the time of their study, little was known about what behaviours communicated caring, and the perspective of patients was largely unknown. Using the CBA, the authors surveyed 22 patients who had had a myocardial infarction, and had been in the hospital for between 24 hours and seven days. Socio-demographic data was also obtained in order to evaluate whether perceptions of nurse caring behaviours differed according to sex, age, educational level, experience with hospitalization

(number of CCU admissions), and length of stay. Generally, their results showed that nursing care behaviours that focused on physical care and monitoring of patients were more important to indicate caring. The highest-ranking subscale was 'human needs assistance', which includes items such as 'know how to handle equipment', 'checks my condition very closely' and 'lets my family visit as much as possible'. Teaching activities were also important, whereas the behaviours related to more individualized components of care, such as 'asks me how I like things to be done' or 'tries to see things from my point of view' were less important. Only one significant difference was found on the basis of socio-demographic characteristics. The dimension 'Expression of positive / negative feelings', including items like 'encourage me to talk about how I feel' and 'help me understand my feelings' was given a higher rating by patients who had previous experience in the CCU. The authors theorized that this result could be due to either 1) patients with prior experience recognizing their need to ventilate feelings, or having stronger emotions due to repeated hospitalizations, or 2) the small size of this group (n=9). Thematically, the top items in this study show the concerns related to technical and professional competence, which is similar to one of the top need statements from the Engli and Kirsivali-Farmer (1993) study, where family members needed to be assured that 'the best possible care' was being given to their loved one. Limitations of the Cronin and Harrison study were reported as the small overall sample size and the relative homogeneity of the sample. They also suggested a limitation of the CBA tool included its length and the variability in the number of items per subscale.

A more recent study using the CBA by Baldursdottir and Jonsdottir (2002) included 182 patients who had been treated in an emergency department (ED) in

Iceland. The purpose of the study was to identify which nurse caring behaviours were perceived as important indicators of caring in this setting. Two items of the CBA were removed that were deemed by the authors to not be appropriate for the Icelandic culture. Also, the effects of socio-demographic characteristics were analyzed. The surveys were mailed to patients two weeks after their discharge. Their results showed that overall, all of the 61 caring behaviours had generally high scores (above 3.15 on a 1-5 Likert scale), with the 'human needs assistance dimension' items ranked highest. Similar to the original study by Cronin and Harrison (1988), behaviours related to physical care and monitoring of patients were prioritized over those that addressed emotional or spiritual needs. There were significant differences in results with regard to age, gender, and educational level of the patient. Women scored significantly higher on all of the dimensions except 'teaching / learning' and 'existential / phenomenological / spiritual forces'. Results showed 1) older patients found caring behaviours more important for all of the seven dimensions of the CBA, 2) people with lower educational levels scored significantly higher on the dimensions 'humanism / faith / hope', 'expression of positive / negative feelings', 'teaching / learning' and 'existential / phenomenological', and 3) no significant differences existed with respect to the patients' perception of illness severity. The results suggest that the items of the CBA are appropriate indicators of caring to be measured in emergency departments, due to the overall high scores for all items. Also, results suggest differences in the perceptions of important caring behaviours in ED patients with regard to gender, age and educational level. These differences were not apparent in the study by Cronin and Harrison and may be to the small sample size (n = 22) of the study.

Alternatively, findings that the women, older patients and patients with lower educational levels of the study gave different scores for importance for each behaviour, may be due to generational, cultural, or societal differences in each groups' expectations of care from emergency nurses. For instance, Icelandic women in treated in emergency departments may have different expectations from the nurses caring for them, and so scored certain behaviours more highly than did their male counterparts. These results, where socio-demographic characteristics played a role in the importance scores attributed by certain groups, differ from Kimble's findings in a study with an ED clientele.

An unpublished Masters' study done by Kimble (2003) also used the CBA in the ED, with a sample of 59 individuals. Using a descriptive design, the purpose of her study was to establish 1) which set of caring behaviours were perceived as most important by ED patients and parents of patients, and 2) which specific nurse caring behaviours were perceived as most or least important. She also examined whether age or perception of illness were related to the perceptions of caring behaviours. Her sample included adult women, and a small number of parents of children seen in the ED. Respondents were asked to fill out the survey before their discharge. The results of her study showed the 'human needs assistance' dimension ranked highest overall as the most important set of nursing behaviours. The two single behaviours that ranked highest were 'be kind and considerate' and 'treat me as an individual', which both belong to the 'humanism / faith / hope' dimension. In contrast to Baldursdottir and Jonsdottir (2002), no significant correlations were found between the age and perception of illness variables and the importance of caring of the dimensions of the CBA. Apart from the smaller sample size (n=59), the sampling

methodology was different in that respondents filled in the surveys before their departure from the ED. This would mean that their recollections of care were still fresh, and were less influenced by feelings that could modify the perceptions, such as a discharge home. Kimble's study was the only study found using the CBA that incorporated the perspective of family members, though not exclusively, in a critical care setting.

A study that used the CBA and compared patient groups was by Dorsey, Phillips, and Williams (2001). Their descriptive, correlational study was to establish 1) whether differences existed in the perceptions of adults with Sickle Cell Disease (SCD) versus other medical conditions, and 2) whether gender differences existed in the perceptions of nurse caring behaviours for patients with SCD. Their sample included 29 adults with SCD and 34 adults with other medical conditions, all of whom were African-American and had been hospitalized within the previous year. The CBA was modified for their study to measure patient *satisfaction* (not importance as in previous study) with nursing care by changing the wording. To test the differences in perceptions of nurse caring between the two groups based on medical condition (SCD versus other medical conditions), an independent t-test was used. It was found that adults with SCD reported a significantly lower satisfaction with nurses' caring behaviours than the patients with other medical conditions. There were also significant differences in perceptions of nurse caring based on gender; the 11 male respondents with SCD reported greater satisfaction with caring behaviours than did the 18 female respondents with SCD. The authors suggested that the differences in satisfaction levels with the different medical groups could be due to SCD patients having a greater number of hospitalizations per year, which

could lead to greater expectations of care of this group resulting in a lower satisfaction. With regards to gender, the authors suggested that women may have greater expectations of nursing care, resulting in lower satisfaction. Gender-related differences in perceptions of nursing care have also been found in other studies (Foss, 2002), in which women have given significantly lower satisfaction scores. An important limitation of the Dorsey, et al. study was that the participants may not have been able to distinguish nursing personnel from other health care professionals in the various settings, and the timing of the retrospective surveys (within one year of hospitalization).

In summary, a small number of studies have been done to evaluate the importance and satisfaction of caring behaviours using the CBA. Most of the participants have been patients in high-acuity areas, such as the CCU (Cronin & Harrison, 1988), or emergency departments (Baldursdottir & Jonsdottir, 2002; Huggins, Gandy & Kohut, 1993). To a lesser extent, it has been used in other populations such as geriatric (Marini, 1999) or medical out-patients (Dorsey, Phillips & Williams, 2001). From these studies, the highest scores are consistently in the domain of 'human needs assistance'. Common behaviours that relayed a sense of caring to the respondents were those that demonstrated technical and professional competence, providing information, and showing concern for the patient. Most of the studies also took into consideration various socio-demographic characteristics. Only one study was found that included the perspective of family members.

Satisfaction with Health Care Services

Apart from the caring literature, the present literature review included particular studies on “satisfaction with health care services” and brought useful insight. Some authors have suggested that, in order for satisfaction questionnaires to reflect quality in nursing care, it is important that there be a standardization of the definition of satisfaction between the providers and recipients of care (Yellen, Davis & Ricard, 2002). However, a disparity exists in the literature when looking at satisfaction with caring from the perspective of the family versus the perspective of the patient. Studies looking at patient satisfaction are more prevalent, despite the importance of satisfaction in the quality of care literature.

Family Satisfaction with Health Care

The authors of a large study (Heyland, et al., 2002) sought to describe the level of satisfaction of 624 family members with the overall care that they and their critically ill relatives received at six hospital centers across Canada. They found that certain variables were significantly associated with overall satisfaction with their ICU experience. These variables included 1) the completeness of information received 2) the courtesy / respect and compassion shown to the patient, 3) the courtesy and compassion received by the respondent, and 4) the degree of respondent satisfaction with the amount of care provided to the patient. In general, their results demonstrated that most family members were highly satisfied with the care provided to both them and their hospitalized loved one. Family members reported the greatest amount of satisfaction with nursing skill and competence, and among the items with which they were least satisfied was the frequency of communications with physicians. The authors of the study reported that the use of a

questionnaire that was not anonymous might have influenced the results. They also suggested that efforts made to improve the nature of interactions and communications with families would likely lead to improvements in satisfaction rates.

When evaluating satisfaction with health care services in general, some studies have suggested that socio-demographic factors may also have an effect on satisfaction ratings as described above.

Socio-Demographic Characteristics and Satisfaction Surveys

Some studies have demonstrated that satisfaction survey results and perceptions of care may be influenced by such factors as cultural background, severity and types of illness or diagnosis, length of stay, the age of the respondent, or experience with previous hospitalizations (Davis & Bush, 2003; Raper, Davis & Scott, 1999; Spooner, 2003; Williams, 1997).

A study by Spooner (2003) explored the effect of patient characteristics on overall satisfaction scores. There were 14,066 patients in the study who were mailed a survey five days after their discharge; the response rate was 34.2%. The analyses of the impact of age, length of stay, gender, medical or surgical diagnosis, payer (medicare or not), and whether the patient had a roommate on the overall satisfaction showed that age had a positive effect. Older patients reported higher levels of satisfaction. There was also a positive effect regarding presence of a roommate. Those who did not share a room reported more satisfaction. However, the author cautioned about the generalizability of this study, and satisfaction studies in general because of low response rates.

A satisfaction study by Rahmqvist (2001) analyzed the relationship between patient satisfaction and factors such as age, gender, health status and pain. This study evaluated satisfaction levels using a mailed-out survey with 3380 patients (69% response rate). The survey addressed quality of care and satisfaction with in-patient care, to patients who had been hospitalized in four hospitals in Sweden. As in Spooner's (2003) study, the results showed a positive and significant relationship between age and satisfaction, where satisfaction scores increased with age. The patient's subjective health status and the presence of pain were also significantly related to the satisfaction scores; the scores decreased when pain increased, and as subjective perception of health status worsened. In this study, gender did not relate to satisfaction scores. This result differs from other satisfaction studies where there were significant gender differences in satisfaction scores for health care (Johnson et al., 1998), and nursing care in particular (Foss, 2002).

In summary, there has been variability in the reports of possible relationships between socio-demographic factors and the evaluation of satisfaction with care. Because the results are so variable, it is prudent to continue to evaluate them in further research.

Summary

There exists a large body of literature on family presence in the ICU. Much of the research has focused on various elements such as needs assessments and stressors. To a lesser extent, there has been exploration of the caring attitudes and behaviours of nurses with family (Goodell & Hanson, 1999; Grossman, 1995). There is reason to think that the family members of critically injured patients may have different opinions of what behaviours indicate caring to them. Few studies

(Engli & Kirsivali-Farmer, 1993; Leske, 2003) were found that explored differences in perceptions of caring between family members of different groups, such as different patient diagnosis, or family member socio-demographics. Some factors, such as the reason for the patient's admission to an ICU, may create difference in experience that could have an effect on family members' perceptions of nursing care. A large body of literature exists on patient satisfaction, and more recently on how certain patient characteristics may affect the evaluation of satisfaction with health care (Rahmqvist, 2001). Studies that evaluate different groups of families' satisfaction levels in the ICU (Heyland & Tranmer, 2001) and/or take into account their demographic characteristics are sparse.

Chapter III - Methods

The following chapter will summarize the type of study, the description of the setting where the study took place, the sample description, definition of variables, the measurement instruments, the outline of the study and data analysis.

Type of Study

A comparative, cross-sectional design was used to evaluate nurse caring attitudes and behaviours from the perspective of family members in the critical care setting. Family members of both trauma and non-trauma patients were asked to rate the *importance of* and their *satisfaction with* nurse caring behaviours on a modified version of the Caring Behaviours Assessment (CBA) instrument (Cronin & Harrison, 1988).

Setting

The study was done in an adult intensive care unit at a large university teaching hospital in a large metropolitan Canadian city. The hospital is an accredited tertiary trauma centre in the region that serves the centre and west-centre sectors of the island of Montreal, and is a tertiary referral centre for many secondary trauma sites throughout the province. The McGill Model of Nursing is promoted as the basis for nursing care at the institution. When working within this model, nurses recognize that even though only one member of the family may be involved, the person should be viewed through a ‘family filter’ where the influence of the family on the individual, and the effect of the individual on the family are considered (Gottlieb & Rowat, 1987).

The intensive care unit (ICU) is a modern 24-bed unit that has a population of adult patients, who have a medical or surgical critical illness or have been severely injured. A team of intensive care nurses, staff physicians and residents,

dedicated pharmacists, respiratory therapists, and a Clinical Nurse Specialist care for patients in this unit. The maximum nurse to patient ratio is 1: 2.

Population / Sample

The population of interest is the individual family members of patients hospitalized in the ICU. The sample included the family members of patients who had suffered trauma and family members of non-trauma patients including medical and surgical critically-ill patients.

Inclusion criteria were defined as: 1) a family member (defined below) of the patient 2) ability to speak and read English or French 3) older than 18 years of age, 4) the hospitalized patient must have had a minimum of 36 hours' ICU stay and a maximum of 120 hours and 5) willing to participate in the study. Family members were defined as: the living relative or friend in a close personal relationship with the patient; spouse/life partner, mother/father, sister/brother and children of the hospitalized patient. If multiple family members were present, the family decided who would respond to the questionnaire, as only one family member was recruited per hospitalized patient. This restriction was indeed to account for measurement issues (such as family influence) that are of particular concern when performing family-related studies (Deal, 1995; Thomas, 1987).

As part of the inclusion criteria, a minimum of 36 hours' stay in the ICU unit was required based on previous studies. Since some family members may have assented to participate but would have liked to fill out the questionnaires at a later time, a maximum stay of 120 hours (five days) was established. The surveys were completed while the patient was still in the ICU, which allowed for a sample description that was less influenced by other factors. Some literature had suggested

that family members may experience difficulties when their loved one is transferred from the ICU to another unit or area, such as grieving, transfer anxiety, or other issues that could affect satisfaction responses (Leske, 1998; Warren, 2002).

Conversely, it is possible that responses could have been positively biased if the surveys had been completed after transfer, when family members felt that 'all is well' given that their loved was longer in the critical care unit.

The exclusion criteria were defined as: 1) inability to read, and 2) having a physical or cognitive impairment that could affect the evaluation of nursing care, as judged by the nurse caring for the patient.

A sample of 64 subjects per group was required to detect a medium effect size (.50) with a power of .80 and an alpha of .05 based on Cohen convention (Cohen, 1988; Maxwell & Delaney, 1990). However, difficulties were experienced in recruiting, particularly for the trauma patient group. Many of the critically injured patients had been transferred from outlying regions, and did not have a family member present during their eligibility period, or had extremely difficult family situations and were deemed inappropriate by the caring nurse to be approached for a study (such as imminent death, or organ donation). A total of 49 respondents were recruited for the study over a four-month period, when the recruitment period was terminated in order to complete the requirements of the study an appropriate timeframe. Therefore the sample size is lower that the one necessary to achieve an adequate power. This consideration will be discussed later. The final sample included 15 family members of trauma patients, and 34 family members of non-trauma patients.

Measures

Definition of Variables

The “importance of caring behaviours” was expressed as a value placed by the family member on each statement of a caring attitude or behaviour when responding to the questionnaire. Respondents placed a value on the different attitudes or behaviours enumerated related to the care they had received from the ICU nursing staff. Previous studies have described that the importance attributed to each dimension of caring reflects the type and amplitude of the needs of that person and in fact reflects their expectations of care (Valcourt, 2000).

“Satisfaction with caring behaviours” has been defined as both a desired outcome of nursing care, a measure of quality, and is generally expressed when the care meets or exceeds one’s expectations (Larson & Ferketich, 1993; Palmer, Donabedian & Povar, 1991). For the purposes of this study, where the ‘patient’ is the family member, satisfaction is the degree to which the family member expresses the care meets or exceeds one’s expectations for each nursing attitude or behaviour.

Instrument

The Caring Behaviors Assessment (CBA)

The CBA was based on Watson’s theory of human caring (Cronin & Harrison, 1988). The instrument was developed and used initially on critically ill patients in a cardiac care unit with the purpose of determining the nurse caring behaviours that would contribute to a patient ‘feeling cared for or about’. It was designed originally as a Likert-type scale with 63 items (or statements) representing caring behaviours (see Appendix I) distributed into seven sub-scales (dimensions) based on Watson’s carative factors (1985).

The dimensions of caring appraised by the family members are 1) humanism / faith / hope / sensitivity, 2) helping/trust, 3) expression of positive or negative emotions, 4) teaching/learning, 5) supportive / protective environment, 6) human needs assistance and 7) existential / spiritually supportive nurse caring behaviours.

After obtaining the authors' permission (see Appendix I), the researcher revised and modified each statement to suit a family member as a respondent. It is important to note that the questions were worded in such a way that the family members answered questions related to their perception of the care they had received overall from the bedside nurses in their interactions during the critical care stay. The format of the CBA was designed to allow for both an assessment of what indicated caring to the family member (by giving a score for importance), and to what degree they experienced caring as an outcome measure (by giving a satisfaction score). Because of the multi-cultural city in which the study was conducted, both English and French versions were required. Therefore, a previously translated version of the CBA (Valcourt, 2000) was modified to suit family members as respondents. Two questions were removed (items 46 and 52) because the content of these items could not be modified to suit family members. Each item was scored on a 1 to 5 Likert scale varying from 1= not at all satisfied to 5= very satisfied; and 1= not at all important, to 5= very important. (see Appendix III).

Strengths of the tool include solid theoretical basis and is written in at the sixth grade level. In a pre-test, two nurses required eleven minutes (French version) and twelve minutes (English version) each to respond to the questionnaire. Family members in this study took approximately 15 to 20 minutes to answer both the CBA and the socio-demographic questionnaires together. The original study reported

Cronbach alphas for each subscale being between .66-.90 (Cronin & Harrison, 1988). In the French version by Valcourt (2000) only two sub-scales showed alpha coefficients less than .70. Alpha coefficients in the present study are presented in Table 1 for the French and English versions of the questionnaire. Overall, coefficients were similar for both languages with the exception of three lower coefficients for the French version (subscales 3, 4 and 6), which may be due to a smaller sample size. The remaining of the coefficients were considered acceptable (Burns & Grove, 2001).

Table I

Cronbach Alpha coefficients for family members version of the Caring Behaviors Assessment Tools (CBA)

Dimensions	Item	French version n = 15		English version n = 34	
		Importance α	Satisfaction α	Importance α	Satisfaction α
1.Humanism/Faith/hope	1-16	.83 ^a	.91	.83	.95
2.Helping/Trust	17-27	.81	.82	.89	.90
3.Expression of Positive/ Negative feelings	28-31	.62	.75	.91	.87
4.Teaching/Learning	32-39	.58	.88	.83	.89
5.Supportive/Protective / Corrective Environment	40-51 ^b	.75	.85	.81	.84
6.Human Needs Assistance	52-60 ^b	.49 ^c	.68	.75	.72
7.Existential / Phenomenological / Spiritual Forces	61-63	.89	.92	.86	.86

^a Item 15 not considered for analysis due to zero variance

^b Items 46, 52 removed from both versions of Family members CBA

^c Items 54,56,57,58 not considered for analysis due to zero variance

Validity of the scale also includes an assessment of the independence between the seven caring dimensions in terms of importance and satisfaction. Pearson's correlations were all significant at $p > .05$ and varied from .34 to .73 for the importance and from .51 to .85 for the satisfaction. (Appendix II). This suggests that not all of the dimensions are independent; this is particularly the case for the satisfaction scores.

Socio-Demographic Questionnaire

Socio-demographic data was collected using a one-page questionnaire. For the current study, the family members variables assessed were gender, age, relationship to the patient, and level of education, previous experience with ICU hospitalization and perception of the illness or injury severity and reasons for hospitalization. 'Perception of illness or injury severity' was scored on a 10mm visual analog scale. To determine the 'reason for hospitalization' respondents were asked to circle one of the following possibilities: 1) motor vehicle collision 2) fall 3) heart surgery 4) pneumonia / breathing problems and 5) other. Other socio-demographic data collected were the patient's age, patient's gender, and the length of stay of patient (at the time of the data collection).

Procedures

After acceptance by the university health centre's research ethics committee, the researcher, with permission from the nurse manager, met with the ICU nursing staff to describe the study aim and procedures. Following this, she screened admissions for family members who matched the inclusion criteria once per 24-hour period. When a family member seemed to meet the inclusion criteria, the nurse caring for the patient was asked to give a brief explanation of the study to potential

participants and obtained assent for the researcher to approach them. Once assent was obtained, the researcher met the family member, gave a thorough explanation of the purpose and principle elements of the study, clarified eligibility for the study and obtained informed consent.

The questionnaires were presented to the participants in a private room in the ICU with the researcher available to answer questions or clarify words. Once consent for participation in the study was obtained, the researcher accompanied the family member to a private room in the same unit and not far from their loved one to review the questionnaires. Participants were asked to carefully read the directions and then to proceed with completing the forms. Family members were asked to respond while still in the ICU to accurately reflect their perceptions of nursing care in this area.

To protect confidentiality, the participants placed their completed questionnaires in sealed blank envelopes with no identifying link to the hospitalized patient and submitted them to the researcher. Two respondents decided not to finish the questionnaires they had commenced because the time required to complete the questionnaire was longer than they had anticipated. They requested and received an addressed envelope to return the completed questionnaires via mail, but neither returned the surveys.

Data Analysis

In order to describe the sample, descriptive statistics were used. For the research questions the modified CBA instruments generated 14 sub-scale scores (seven for satisfaction, and seven for importance). Missing values (less than 1%)

were replaced with the modal value of each item, in order to allow for statistical analysis.

For research question 1, to determine whether there were differences between groups in their perceptions of the importance of or satisfaction with the dimensions of caring, multivariate analyses of variance (MANOVA) were carried out. The ‘between subject’ factors were the groups (trauma and non-trauma patients) and the ‘within subject’ factors were the scores for importance on the seven dimensions of caring. The same analysis was carried out for the scores of satisfaction. These analyses provided an overall test for the within subject effect (*importance* and *satisfaction*) and for the between subject effect (trauma and non-trauma patients). When the MANOVA results indicated significant differences between the groups, post-hoc comparisons were done using Bonferroni corrections for multiple comparisons.

For research question 2, similar MANOVA analyses were performed for *gender* and *previous experience with hospitalisation* (yes-no) with these characteristics considered the “between subject factor”. To determine whether relationships exist between age and importance and satisfaction with caring Pearson correlations were used. Pearson correlations were also performed between *perception of illness severity* and the seven subscales of importance and satisfaction with caring.

To describe the scaling response, the rank in the items of the caring dimensions for highest and lowest levels of importance and satisfaction were also identified.

Ethical Considerations

The study was approved by both the Université de Montréal and the Health centre's research ethics committees.

The informed consent of each participant occurred first by obtaining assent (through the caring nurse asking for permission for the researcher to approach them). The researcher then went over the consent form (Appendix V) with the objectives of the study in lay terms and explained requirements to participate. Respondents were assured that participating in the study would in no way affect their loved one's care, and they could refuse or withdraw at any time. Once consent for participation in the study was obtained, the researcher accompanied the family member to a private room in the same unit and not far from their loved one to review the questionnaires. The respondents then filled out the questionnaires independently, with the researcher available to answer questions or clarify wording. So that confidentiality was maintained, the participant placed all completed questionnaires in sealed blank envelopes that had no link to the hospitalized patient. Results of the study will be shared in an anonymous format.

Chapter IV - Results

The following chapter summarizes the results of the study. The first section describes the socio-demographic characteristics of the family members and of the patients. The second section describes the overall perceptions of the participants about the importance of and their satisfaction with the caring dimensions of the CBA questionnaire. The third section presents the results related to each research question.

Sample

Table II presents the descriptive and socio-demographic profile of the family members as respondents and the patient characteristics. The sample consisted of 49 family members of patients hospitalized in the intensive care unit. Overall, there were more female than male participants ($n = 35$ vs. 14). The average age for the sample was 49.52 years. The only demographic differences between the trauma and non-trauma patients were the older age of the patients in the critically ill group and that mothers were more likely to be the respondent in the critically injured group. Both groups of respondents indicated a very serious perception of injury severity (mean of >8 mm) on the 10mm visual analog scale, with little difference between the groups.

The trauma group had a greater proportion of younger family members and patients, more mothers, and a higher proportion of female respondents. The 15 family members included three males and 12 females who were, on average, 45.33 years. The critically injured patients had a mean age of 48.53 years and most ($n = 10/15$) were hospitalized following a motor vehicle collision. At the time of the family members completing the survey, the patients' average length of stay was 98.4 hours (or 4.1 days).

Table II*Socio-demographic characteristics of patients and family members*

	Trauma n = 15	Non-trauma n = 34	
Family member characteristics			
Age (X ± SD)	45.33 ± 15.093	53.71 ± 14.29	p = .069
Gender Male (%) / Female (%)	3 (20.0%) / 12 (80.0%)	11 (32.4%) / 23 (67.6%)	p = .378
Relationship to patient:			n/a
1 mother	6 (40.0%)	2 (5.9%)	
2 father	1 (6.7%)	0	
3 sister	0	4 (11.8%)	
4 brother	0	1(2.9%)	
5 child	3 (20.0%)	12 (35.3%)	
6 partner	3 (20.0%)	13 (38.2%)	
7 other	2 (13.3%)	2 (5.9%)	
Highest education completed:			n/a
Elementary	0	3 (8.8%)	
High School	3(21.4%)	11(32.4%)	
College	5(35.7%)	8(23.5%)	
University	6(42.9%)	12(35.3%)	
Experience in ICU (No/Yes)	8 (53.3%) / 7 (46.7%)	13 (38.2%) / 21 (61.8%)	p = .33
Perception of severity (mm)	8.11 ± 1.46	8.02 ± 1.82	p = .86
Patient characteristics			
Patient's age (x ± SD) ^a	48.53 ± 24.49	66.41 ± 15.37	p = .003
Gender (% male / % female)	53.3% / 46.7%	64.7% / 35.3%	p = .45
Reason for hospitalization ^b			n / a
1 car / motor vehicle collision	10 (71.4%)	-	
2 heart surgery	-	11(32.4%)	
4 fall	4(28.6%)	-	
5 pneumonia/breathing problems	-	9(26.5%)	
7 other	-	13(38.2%)	
Length of stay ICU	4.10 ± 1.072	3.55 ± 0.96	p = .083

^a N=32 participants due to missing values

^b N=33 participants due to missing values

n/a = Statistical tests not performed because distribution includes zero cells

The 34 family members of the non-trauma patients included 11 males and 23 females, who were on average 53.71 years of age. In this group, there were more

spouses and children. The patients were, on average 66.41 years of age, the majority were hospitalized for treatment of a variety of medical conditions or general surgical interventions (other n = 13), heart surgery (n = 11) and respiratory problems (n = 9). At the time that the family members completed the survey, the patients' average length of stay was 85.20 hours or 3.55 days.

Descriptive Results

Generally, the family members rated their perceptions of the importance of the various dimensions of caring very highly. They were also highly satisfied with the dimensions of caring measured using the CBA. Most dimensions had a mean score near 4 on the 5-point scale. Only the dimension relating to existential / phenomenological / spiritual forces had a mean score at or just below the mid-point of the scale in any of the analyses. In most analyses, the mean scores for satisfaction were higher than their perceptions of the importance of the dimensions.

The dimension that appeared most frequently in importance for both the critically injured and critically ill groups was human needs assistance. When ranking the items of the caring instrument overall to observe trends, all top five mean scores in levels of importance belonged to the human needs assistance dimension, and were equal to or greater than 4.99 for the critically injured group and 4.88 for the critically ill group. Overall, 66% of the caring behaviours as responded to by the critically injured group had mean importance scores of >4.0. For the critically ill group, this was true for 67% of the caring behaviours.

The items with the highest ranking mean scores for satisfaction also belonged to the human needs assistance dimension, and were equal to or greater than 4.93 for the critically injured group and 4.84 for the critically ill group. This

indicates a very high degree of satisfaction among all family members. Overall, 75% of both groups scored all caring behaviours with mean satisfaction scores of > 4.0, and neither group had a mean satisfaction score of < 3.4 for any item.

Differences in Caring Subscales for Importance and Satisfaction in Trauma Versus Critically Ill Family Members

Table III represents the results of the analyses for the first research question. Both groups indicated high scores on importance and satisfaction with the caring dimensions. The MANOVA to test between group differences in the ratings of the importance of the dimensions showed significant differences ($F = 2.81, p = .017$). However, none of the post-hoc tests demonstrated significant differences on any one dimension of caring. The largest differences in importance were found in the dimension relating to existential / phenomenological / spiritual forces, which had lower scores in the critically injured group, however, this was not significant. The types of behaviours found in this dimension include '*seem to know how I feel*' and '*help me feel good about myself*'.

Both groups also had high levels of satisfaction with the dimensions of caring and there were no significant differences ($F = 167, p = .14$). Therefore post-hoc tests were not performed. Once again, the dimension related to existential / phenomenological / spiritual forces had the lowest mean scores for both groups.

Table III

Mean differences in caring subscales for importance and satisfaction between trauma and non-trauma groups

Dimension	Trauma ($\mu \pm SD$) n = 15	Non-trauma ($\mu \pm SD$) n = 34	Post-hoc <i>p</i> -value
Importance			
1.Humanism / Faith / Hope	4.22 \pm 0.52	4.23 \pm 0.55	.94
2.Helping / Trust	3.75 \pm 0.56	4.018 \pm 0.70	.20
3.Expression of Positive / Negative Feelings	3.58 \pm 1.21	3.84 \pm 0.99	.44
4.Teaching / Learning	4.36 \pm 0.50	4.18 \pm 0.60	.31
5.Supportive / Protective / Corrective environment	4.33 \pm 0.44	4.28 \pm 0.54	.75
6.Human Needs Assistance	4.86 \pm 0.16	4.80 \pm 0.22	.41
7.Existential / Phenomenological / Spiritual Forces	2.88 \pm 1.03	3.53 \pm 1.27	.086
Satisfaction			
1.Humanism / Faith / Hope	4.28 \pm 0.49	4.32 \pm 0.67	not applic. (n/a)
2.Helping / Trust	4.10 \pm 0.54	4.14 \pm 0.67	n/a
3.Expression of Positive / Negative Feelings	4.09 \pm 0.66	4.02 \pm 0.75	n/a
4.Teaching / Learning	4.23 \pm 0.51	4.03 \pm 0.69	n/a
5.Supportive / Protective / Corrective Environment	4.48 \pm 0.39	4.30 \pm 0.55	n/a
6.Human Needs Assistance	4.82 \pm 0.20	4.74 \pm 0.28	n/a
7.Existential / Phenomenological / Spiritual Forces	3.69 \pm 0.93	3.89 \pm 0.80	n/a

Differences in Caring Subscales for Importance and Satisfaction in Male and Female Family Members, and Family Members With or Without Previous ICU Experience.

For the second research question, all respondents (both trauma and non-trauma) were grouped together. Tables IV, V, VI, and VII present the results of these analyses.

The purpose of these analyses was to evaluate whether differences existed in their perceptions of nurse caring behaviours given different socio-demographic factors.

Gender

When comparing the two genders, overall there was no significant difference for importance on any caring dimensions ($F = 0.61, p = .75$) therefore post-hoc tests were not performed. Both groups were similar in that they had high means in levels of importance for all caring dimensions. The human needs assistance dimension had the highest mean scores for both groups. Both genders were also similar in their ratings of importance scores for the existential / phenomenological / spiritual forces dimension, which received the lowest mean scores.

Both genders also had high levels of satisfaction with the dimensions of caring. The MANOVA to test between group differences provided an overall difference ($F = 3.05, p = .011$) therefore post-hoc analyses were performed. These tests demonstrated no significant differences in the caring dimensions between genders. The largest difference in mean satisfaction scores was in the teaching / learning dimension. The female respondents were on average more satisfied with this dimension of caring in their interactions with nurses, however the difference with the male group was not found to be significant.

Table IV

Mean differences in Caring subscales for importance and satisfaction between male and female family members

Dimension	Male ($\mu \pm SD$) n = 14	Female ($\mu \pm SD$) n = 35	Post-hoc <i>p</i> -value
Importance			
1.Humanism / Faith / Hope	4.11 \pm 0.49	4.28 \pm 0.55	not applic. (n/a)
2.Helping / Trust	3.95 \pm 0.44	3.93 \pm 0.74	n/a
3.Expression of Positive / Negative Feelings	3.76 \pm 0.71	3.76 \pm 1.18	n/a
4.Teaching / Learning	4.09 \pm 0.38	4.29 \pm 0.63	n/a
5.Supportive / Protective / Corrective Environment	4.27 \pm 0.52	4.31 \pm 0.51	n/a
6.Human Needs Assistance	4.82 \pm 0.21	4.82 \pm 0.20	n/a
7.Existential / Phenomenological / Spiritual Forces	3.35 \pm 0.98	3.32 \pm 1.33	n/a
Satisfaction			
1.Humanism / Faith / Hope	4.40 \pm 0.50	4.27 \pm 0.66	.52
2.Helping / Trust	4.11 \pm 0.53	4.14 \pm 0.67	.91
3.Expression of Positive / Negative Feelings	3.97 \pm 0.64	4.08 \pm 0.76	.62
4.Teaching / Learning	3.86 \pm 0.47	4.18 \pm 0.68	.12
5.Supportive / Protective / Corrective Environment	4.31 \pm 0.50	4.38 \pm 0.52	.69
6.Human Needs Assistance	4.78 \pm 0.23	4.76 \pm 0.27	.77
7.Existential / Phenomenological / Spiritual Forces	3.70 \pm 0.79	3.88 \pm 0.86	.51

Previous Experience with ICU

A MANOVA was then performed to test between group differences in importance based on the respondents' previous experience with an ICU. Table V presents the results of these analyses. All family members' responses were grouped together by experience with ICU hospitalization (answered as a dichotomous yes / no). There was no overall difference between groups ($F = 0.84, p = .56$). Therefore, no post-hoc tests were performed. All mean scores for importance and for satisfaction were higher in the group that had no previous ICU experience, but not

significantly. Since there was no significant difference between groups for satisfaction ($F = 1.71$, $p = .13$), post-hoc tests were not performed. The human needs assistance dimension had the highest mean scores for importance for both groups, and also had the highest mean satisfaction scores for both groups.

Table V

Mean differences in caring subscales for importance and satisfaction between family members with and without previous experience with ICU hospitalizations

Dimension	With Experience ($\mu \pm SD$) n = 28	Without experience ($\mu \pm SD$) n = 21	Post-hoc <i>p</i> -value
Importance			
1.Humanism / Faith / Hope	4.21 \pm 0.56	4.23 \pm 0.52	not applic. (n/a)
2.Helping / Trust	3.91 \pm 0.66	3.96 \pm 0.69	n/a
3.Expression of Positive / Negative Feelings	3.71 \pm 0.95	3.84 \pm 1.21	n/a
4.Teaching / Learning	4.12 \pm 0.58	4.39 \pm 0.54	n/a
5.Supportive / Protective / Corrective Environment	4.23 \pm 0.54	4.39 \pm 0.46	n/a
6.Human Needs Assistance	4.79 \pm 0.22	4.86 \pm 0.18	n/a
7.Existential / Phenomenological / Spiritual Forces	3.14 \pm 1.23	3.58 \pm 1.21	n/a
Satisfaction			
1.Humanism / Faith / Hope	4.25 \pm 0.71	4.39 \pm 0.46	n/a
2.Helping / Trust	4.02 \pm 0.72	4.27 \pm 0.47	n/a
3.Expression of Positive / Negative Feelings	3.87 \pm 0.73	4.28 \pm 0.65	n/a
4.Teaching / Learning	3.96 \pm 0.70	4.26 \pm 0.53	n/a
5.Supportive / Protective / Corrective Environment	4.26 \pm 0.57	4.48 \pm 0.40	n/a
6.Human Needs Assistance	4.69 \pm 0.30	4.87 \pm 0.13	n/a
7.Existential / Phenomenological / Spiritual Forces	3.61 \pm 0.90	4.13 \pm 0.66	n/a

Age

To answer the second part of the second research question, Pearson correlations were used to determine whether relationships existed between age and perception of injury or illness severity, and their perceptions of caring. Tables VI and VII present the results of these analyses.

Table VI

Relationships between family member's age, and importance and satisfaction with each caring dimension (n = 49)

Dimension	Importance	Satisfaction
	Pearson <i>r</i> (<i>p</i> value)	Pearson <i>r</i> (<i>p</i> value)
1.Humanism / Faith / Hope	.18 (.22)	.21 (.15)
2.Helping / Trust	.23 (.12)	.13 (.38)
3.Expression of Positive / Negative Feelings	.04 (.76)	.08 (.60)
4.Teaching / Learning	- .04 (.77)	.21 (.16)
5.Supportive / Protective / Corrective Environment	.02 (.89)	.20 (.17)
6.Human Needs Assistance	.05 (.76)	.04 (.77)
7.Existential / Phenomenological / Spiritual Forces	.01 (.41)	.10 (.49)

The correlations between age and ratings for importance and satisfaction were very low or weak, ranging from -.04 to .23. There were no significant correlations between age and any of the 7 dimensions of caring for both importance and satisfaction. Although not significant, the highest coefficients were between age and the importance of the dimension related to ‘helping/trust’ ($r = .23$, $p = .12$) and satisfaction with the dimensions ‘humanism / faith / hope’ ($r = .21$, $p = .15$) and ‘teaching / learning’ ($r = .21$, $p = .16$). This encompassed such items as ‘*answer quickly when I call for them*’ for ‘helping / trust’, ‘*are kind and considerate*’ for ‘humanism / faith / hope’, and ‘*asks me questions to be sure I understand*’ for ‘teaching / learning’.

Perception of Illness or Injury Severity

Overall, a significant positive relationship was found between family members' perception of severity of illness or injury and the importance of the human needs assistance dimension ($r = .36, p = .012$). Therefore the more serious the family member perceived the patient's condition to be, the more important they judged behaviours such as '*know how to handle equipment*', '*keep me informed of my loved one's progress*' and '*let me visit my loved one as much as possible*' belonging to this dimension. No other significant relationships were found between the perception of illness or injury severity and the scores for importance or for satisfaction.

Table VII

Relationships between family member's perception of illness or injury severity, and importance and satisfaction with each caring dimension (n =48^a)

Dimension	Importance Pearson r (p value)	Satisfaction Pearson r (p value)
1.Humanism / Faith / Hope	.09 (.55)	.01 (.94)
2.Helping / Trust	.13 (.38)	- .10 (.50)
3.Expression of Positive / Negative Feelings	.07 (.66)	- .03 (.86)
4.Teaching / Learning	.07 (.63)	- .10 (.51)
5.Supportive / Protective / Corrective Environment	.21 (.51)	.01 (.99)
6.Human Needs Assistance	.36* (.012)	.06 (.70)
7.Existential / Phenomenological / Spiritual Forces	.09 (.56)	- .02 (.87)

^a n = 48 due to a missing data on this variable for one family member

* $p < 0,05$

Summary

In summary, family members of critically injured (trauma) and critically-ill provided their perceptions of the importance of and satisfaction with a variety of nurse attitudes and behaviours based on Watson's carative factors. There were no

differences found between groups. All respondents were then grouped together and evaluated for differences given different socio-demographic characteristics. Family members' perceptions of caring behaviours were not different given gender or previous experience in the ICU. A significant relationship was found between family members' perception of illness / injury severity and the importance of nurse caring attitudes and behaviours in the dimension 'human needs assistance'. There was no significant relationship with age and importance for any dimension. Finally, there were no significant relationships between the age and perception of illness / injury severity and the scores for satisfaction with nurse caring attitudes and behaviours.

Chapter V – Discussion

This chapter presents a discussion of the results of the study. First will be discussion of the general and descriptive results, with a focus on the results from the use of the CBA on family members, and different groups of family members, in an ICU setting. This will be followed by a discussion of the results of the outcome measure satisfaction, which was added to the CBA modified for this study. Finally, the implications for practice, limits of the study, and recommendations will be presented.

For all family members in the study, the similarities in high mean importance scores across all groups support the premise that family members *in general* find nursing behaviours that are based on human caring, as outlined in the CBA tool, important in their evaluation of nursing care while in the ICU. Respondents gave relatively high scores for the importance, with mean scores for each dimension of caring being at or above 3.3 on the 5-point Likert scale, most being above 3.8. When looking at the rank, the ‘human needs assistance’ dimension was evaluated as being most important across all groups consistently. This dimension had the highest mean scores and lowest standard deviation, indicating a coherence in how family members, regardless of grouping, evaluated the behaviours that conveyed a sense of caring. The items in this dimension include such behaviours as ‘*give treatment and medications on time*’, ‘*know how to handle equipment*’, ‘*check my loved one’s condition very closely*’ and ‘*let me visit my loved one as much as possible*’. The ‘human needs assistance’ dimension consistently ranks highest in studies with various patient populations, including obstetrical (Manogin, Bechtel, & Rami, 2000) and emergency patients (Baldursdottir & Jonsdottir, 2002; Huggins, Gandy, & Kohut, 1993). Kimble’s (2003) study, which included both adult patients and the

parents of children as respondents in an emergency setting, found that parents and patients alike shared the same perceptions of important nurse caring behaviours. The 'human needs assistance' dimension was also reported to be the most important set of behaviours indicating caring to the participants in this setting. A more recent study was conducted using the CBA (O'Connell & Landers, 2008) that compared ICU nurses' and relatives of ICU patients' perceptions of important caring behaviours. Generally their results showed more similarities than differences between the groups, with the top subscales reported as 'human needs assistance' and 'humanism / faith / hope' for both groups. Overall the scores for many of the statements were high, and so the authors counted the number of scores for each statement to give put them in rank order. With this analysis, the order of the two top subscales was different between the groups, with the 'human needs assistance' dimension ranked first for the relatives, and second for the nurses.

These results reveal that both patients and family members in a variety of critical care settings (ED, CCU, ICU) find similarly important or have similar perceptions of what makes them feel cared for. In particular, the 'human needs assistance' dimension has activities and behaviours that are common indicators of nurse caring for family and patients. Also, the high overall scores indicate that the behaviours outlined in the CBA, and particularly the behaviours pertaining to 'human needs assistance' are perceived as important indicators of caring by family members in a combined medical-surgical / trauma ICU setting.

Other results of the current study reveal that the dimension of the CBA with the lowest mean scores for all family members (regardless of grouping) was the 'existential / spiritual' dimension. Behaviours that are part of this dimension include

'seem to know how I feel' and *'helps me see that my past experiences are important'*. In previous studies, some authors decided to omit the spiritual dimension in their evaluations, stating that it was not appropriate for an emergency setting (Huggins, Gandy, & Kohut, 1993). In the current study, family members perceived behaviours that belonged to the 'existential / spiritual' dimension as least important, which is consistent with previous results (Cronin & Harrison, 1988; O'Connell & Landers, 2008; Schultz, 1998). Given the priorities for care in high-acuity environments (such as ED, ICU), it is understandable that family members would be more concerned with priorities of care that are of a life-saving nature, and put a slightly lesser priority on behaviours that convey spiritual support in this initial critical period. However, the spiritual dimension, though last, still has relatively high scores in importance. Baldursdottir and Jonsdottir (2002) had similar findings with an emergency patient population. Therefore, one should not conclude that the caring behaviours in this dimension should be omitted in further studies in critical care settings.

The highest overall satisfaction scores are for the human needs assistance dimension. High overall scores for satisfaction with caring behaviours that relate skill and competence are consistent with existing literature on family satisfaction scores in ICU (Heyland et al., 2002; Wall, Engleberg, Downey, Heyland, & Curtis, 2007). A study by Yellen, Davis and Ricard (2002) found that specific components of nursing interactions contribute to patient satisfaction. These components, such as professionally competent nursing care, availability of the nurse, and the humanness of the nurse in the interpersonal relationship, are reflected in the caring dimensions of the CBA instrument used in the current study and suggest that these components

also contribute to family member satisfaction, given the overall high satisfaction scores that were evaluated. The existential/phenomenological dimension has the lowest mean scores for satisfaction, and is a result that mirrors the importance scores. The body of research looking into family outcomes related to spiritual support in ICU remains quite small (Wall, Engelberg, Gries, Glavan, & Curtis, 2007) in comparison to other subjects that deal with the family presence in ICU. Family satisfaction is a subject that continues to be researched, with many studies attempting to better understand the factors that contribute to satisfaction (Damghi et al., 2008; Dowling, Vender, Guilianelli, & Wang, 2005).

Studies of nurses in critical care settings have affirmed that a concern exists for whether the technologies that they must attend to in caring for their patients might intrude on the care given to and experienced by both patients and family members alike (Wilkin & Slevin, 2004). The results here identify a high degree of caring experienced by family members which indicates the holistic care that they aspire to provide is achieved in this unit. We may also contend that, through their interactions with family members, nurses are able to provide for families a trusting-helping human caring relationship. The transpersonal nurse, according to Watson, has the ability to center consciousness on caring healing and wholeness rather than on disease, illness or pathology. Given the highly technological setting, and by nature the severity of the patients' condition while in the critical care unit, the family members reported a high level of satisfaction with nursing behaviours that indicated caring.

In summary, the themes and behaviours of the human needs assistance that were evaluated as most important in the current study on family members are similar

to previous studies that have used the CBA on a variety of patient populations. Behaviours that convey a sense of caring to family members in general, including technical and professional competence, are very similar to the behaviours that convey caring to patients. Also the use of the CBA to evaluate perceptions of caring of family members in the ICU setting from the results of this study seems to be appropriate, but further studies would be needed.

Family Members' Perceptions: Do Different Patient Diagnosis Groups (Trauma and Non-Trauma) or Socio-Demographic Characteristics Modify their Perceptions of Nurse Caring Behaviours?

No significant differences were found in how family members perceive caring behaviours based on diagnosis group, gender, or previous experience in an ICU. It was thought that the family members of trauma patients in particular could have different perceptions of nurse caring given the particularities of their experience, such as the suddenness of the event or the difficulty in giving a concrete prognosis as reported in the literature (Leske, 1998). The same author's (2003) study demonstrated differences in coping strategies with different diagnosis groupings – and this in fact may have contributed to the perception that trauma family members had different needs or levels of satisfaction with nursing care, which was the premise of this research question. In fact, the overall similarities in responses seen in the current study indicate that it may be the coping strategies, or lack thereof, that are different among family groups, and not their perceptions of care. The present study results also differ from studies using the CBA that have found significant differences based on diagnostic group (Dorsey, Phillips, & Williams, 2001). Although the number of participants was not sufficient to achieve an adequate statistical power to detect a difference between groups, this may be not

the only reason for the absence of statistical difference. Descriptive data shows very similar levels of importance attributed to the dimensions of caring as scored by family members of the two groups. Therefore, we can conclude that when the severity of the illness or trauma is critical, caring behaviours are important for all types of family members.

Small but statistically insignificant correlations exist between the age of the respondent and the 'humanism / hope / sensitivity dimension' and the 'helping / trust' dimension. That is, the kind of nursing behaviours that were found to be more important to older respondents included '*are kind and considerate*' and '*really listen to me when I talk*'. Previous studies using the CBA where age was a factor have had varying results. Kimble (2003), Manogin, Bechtel and Rami (2000) and Schultz et al. (1998) found no significant correlations for age and dimensions of caring with the CBA, whereas Baldusdottir and Jonsdottir (2002) reported that older patients were more satisfied with all of the caring dimensions. The current study did not find such significant differences, and, given overall scores for all of the caring dimensions, indicate a similarity in which nursing behaviours that family members feel are important indicators of caring regardless of their age. Continued research in this area has demonstrated the influence of age on satisfaction levels in some patient populations (Silvestri, Ziran, Barrette-Grischow, & Hull, 2008), where older trauma patients had significantly lower satisfaction levels than younger patients. This suggests that when the respondent is a family member, age may be less of a factor when evaluating perceptions of caring than when the respondent is a patient, and this may be more particular in the ICU setting.

When evaluating levels of importance based on the perception of injury or illness severity, a significant positive correlation was determined to exist between the family member's perception of severity and the 'human needs assistance' dimension. That is, the more that family members in ICU felt that their loved one was seriously ill, the more that nursing behaviours that allowed for frequent visitation, that were informational, and showed technical competence were perceived as caring during this time of crisis. These results differ from previous studies using the CBA that took the perception of illness severity into account, mostly on patients in the emergency department setting. Baldusdottir and Jonsdottir (2002), and Kimble (2003) found no differences between caring subscales with respect to the perception of illness severity of the patient.

The findings highlight that ICU nurses have the opportunity to take into account the family members perception of the degree of illness of their loved one, and further prioritize their care to include the types of behaviours in the human needs assistance dimension. By ensuring that family members experience these types of behaviours when they are seen to be in distress over their loved one's condition, nurses would be taking a proactive approach to assuring the family, as well as the patient, feels cared for.

Caring Behaviours Assessment: Methodological Considerations

Correlations between dimensions of caring. There are high correlations between the dimensions of caring for both satisfaction and importance scores. This shows an inter-relatedness between the dimensions caring that has been seen in other studies using the CBA (Dorsey, Phillips, & Williams, 2001) and in other studies evaluating caring (Cossette et al., 2006; Wolf, 2003). Cossette et al. argued that an

overlap of the dimensions is acceptable on a theoretical basis, because it is obvious that they cannot be independent in clinical practice. However, the limitations of these high correlations include the methodological difficulties in identifying which dimensions are particularly important since an overlap does exist. A great deal of work is being currently undertaken to measure caring (Watson, 2008). This demonstrates the importance given to measuring caring, so as to demonstrate the effect of caring behaviours to patients and family, and how they are related to better outcomes.

Finally, a ceiling effect is noted, nearly all family members are moderately to highly satisfied no matter how they are grouped. This could represent a uniformity in nursing care that transcends the service or diagnostic group of a given patient, where family members benefit from consistent, beneficial interactions that results in them feeling cared for during their stay in the ICU.

Implications for Practice / Recommendations

Watson's model of caring includes elements that outline the caring relationship and promote the concern and connectedness of the nurse, for the optimal well-being of her patients. By using the instrument based on Watson, a measure of which nursing attitudes and behaviours promote a positive experience for family members through a caring relationship, has begun. Further exploration is needed. The modified CBA was easy to administer, and most respondents completed both questionnaires within 20 minutes. The strong response rates for the modified CBA used here indicate that this could be a valuable tool for use in ICU settings, contrary to the suggestions of the original authors (Cronin & Harrison, 1988). Given the relative ease with which respondents answered the questionnaire, implementing an

evaluative tool such as this could provide prompt and specific unit feedback on indicators of nurse caring from the perspective of the family member. Results such as these could be useful for health care providers to develop quality standards or even instructive changes on a unit that incorporate the family's perspective.

The underpinning of the study, where the need to include the family's perspective of what constitutes a humanistic and caring approach, has been furthered. The results, using the CBA modified for family members, will help ICU nurses understand that many behaviours are common indicators of caring to family members are similar to the behaviours that indicate caring to patients, as was seen in previous studies. Given the results focused entirely on the family's perspective of what conveys caring to them, and relates their actual experience of caring, the results add to a developing body of knowledge that further describes the links between nurse caring, care quality, and satisfaction. The outcome measures traditionally selected for the evaluation of care quality in the ICU may further incorporate this unique and important perspective. It could be further suggested that ICU nurse education and training be modified to target such behaviours that convey professional and technical competence, particularly when the family members perceive their loved one's condition to be very serious.

The results of the current study are relevant to nurses practicing in critical care areas who may be unsure that family members are benefiting from their interventions, or who may feel frustrated with the realities of the health care systems in which they work. The family members sampled demonstrate that their personal interactions with the nurses were experienced through a caring approach, which is instrumental in the perception of overall quality care. In this highly technological

environment, the humanistic nature of nursing was identified and experienced by family the members sampled, and the results suggest the ICU nurses' impact on family member outcomes as positive.

Recommendations for Research

Further investigation with larger samples may clarify trends seen in this study. As was reported in the first chapter, family members of the critically injured are often grouped with other family members in family-related studies in critical care. It is possible that this is appropriate though only further studies would confirm this. Further studies could also ascertain whether these behaviours belonging to the existential / spiritual dimension (the lowest scoring) are appropriate to evaluate in this setting.

The need to evaluate care from the family members' perspective remains a topic of interest, and may provide a more clear definition of care quality from their perspective. The evaluation of the inter-personal dimensions of care, in particular the aspects of the nurse-client relationship with family members of different diagnostic and socio-demographic groups, may provide more clarity on this subject. Finally, studies relating specifically to the perceptions of nurse attitudes or behaviours with family members in the ICU were sparse and could be further pursued.

Strengths and Limits of the Study

Strengths of the study include that data collection was performed in the ICU during a limited timeframe so that there is a relative homogeneity within each group's evolution, and recollection of the interactions with nurses are recent and clear. It is also the first study that compares the opinions of different groups of

family members using the CBA while taking into consideration different socio-demographic characteristic.

However, there are also limits in the methodology. First, the sample size was lower than the one required to achieve an adequate statistical power. In addition, only 15 family members were recruited to the critically injured group due primarily to a lack of consistent presence of family members at the bedside. This was lower than the sample size of the non-trauma group.

Finally, convenience sampling does not allow one to generalize the results to other family members of trauma and non-trauma patients and the clinical setting may, and this setting may not be representative of all intensive care / trauma units.

Conclusion

This quantitative study using a survey approach was performed to evaluate perceptions of caring from the family members' perspective. This study sought first to evaluate if any differences exist between family members of critically injured and critically ill patients in the critical care setting. Then family members were compared using different socio-demographic characteristics of, gender, previous experience with hospitalization, age and perception of injury or illness severity. Though there is an abundance of literature on the family members in general, studies comparing different groups are less abundant. The examination of importance attributed to the caring dimensions of the instrument provided a new level of understanding of different groups of family members' opinion on their care experiences with nurses while in intensive care.

In summary, all 7 dimensions of caring evaluated in this study scored moderate to high for overall levels of importance regardless of the diagnostic family group. This may indicate that the dimensions are valid criteria with which to evaluate the family member satisfaction in the critical care setting.

This study showed that family members from different diagnostic groups and socio demographics have similar evaluations of nurse caring attitudes and behaviours while in the critical care setting. Also of interest was their level of satisfaction with each of the nurse caring behaviours as evaluated in the CBA. The caring attitudes and behaviours of the nurses with the family members may be seen as elements of quality care and as a priority a caring and family-centred approach. These results are similar to research on patient populations by Wolf et al. (1998) who found that patient reports of nurse caring and reports of satisfaction with nursing care were positively related.

References

- Baldursdottir, G., & Jonsdottir, H. (2002). The importance of nurse caring behaviours as perceived by patients receiving care at an emergency department. *Heart & Lung, 31*, 67-75.
- Bond, A.E., Draeger, C., Mandleco, B., & Donnelly, M. (2003). Needs of family members of patients with severe traumatic brain injury. *Critical Care Nurse, 23*, 63-72.
- Bournes, D. & Mitchell, G. (2002). Waiting: The experience of persons in a critical care waiting room. *Research in Nursing and Health, 25*, 59-67.
- Burns, N. & Grove, S. K. (2001). *The Practice of Nursing Research: Conduct, Critique and Utilisation*, 4th ed. London: WB Saunders.
- Chang, E., Hancock, K., Chenoweth, L., Jeon, Y., Glasson, J., Gradidge, K., & Graham, H. (2003). The influence of demographic variables and ward type on elderly patients' perceptions of needs and satisfaction during acute hospitalization. *International Journal of Nursing Practice, 9*, 191-196.
- Chow, S. M. (1999). Challenging restricted visiting policies in critical care. *Journal of Canadian Critical Care Nursing, 10*, 24-7.
- Cohen, J. (1988). *Statistical Power Analysis for the Behavioural Sciences*, 2nd ed. Hillsdale, NJ: Erlbaum.
- Cossette, S., Coté, J. K., Pepin, J., Ricard, N., & D'Aoust, L.-X. (2006). A dimensional structure of nurse-patient interactions from a caring perspective: refinement of the Caring Nurse-Patient Interaction Scale (CNPI-Short Scale). *Journal of Advanced Nursing, 55*, 198-214.
- Cronin, S., & Harrison, B. (1988). Importance of nurse caring behaviors as perceived by patients after myocardial infarction. *Heart & Lung: Journal of Critical Care, 17*, 374-380.
- Damghi, N., Khoudri, I., Oualili, L., Abidi, K., Madani, N., Zeggwagh, A. A., Abouqal, R. (2008). Measuring the satisfactio of intensive care unit patient families in Morocco: A regression tree analysis. *Critical Care Medicine, 36*, 2084-2091.
- Dowling, J., Vender, J., Guilianelli, S., & Wang, B. (2005). A model of family-centered care and satisfaction predictors. *Chest, 128*, 81S-92S
- Davis, B. A., & Bush, H. A. (2003). Patient satisfaction of emergency nursing care in the United States, Slovenia, and Australia. *Journal of Nursing Care Quality, 18*, 267-274.
- Deal, J. (1995). Utilizing data from multiple family members: A within-family approach.. *Journal of Marriage and the Family, 57*, 1109-1121.

- Dorsey, C., Phillips, K. D., & Williams, C. (2001). Adult sickle cell patients' perceptions of nurses' caring behaviours. *The Association of Black Nursing Faculty Journal, September-October*, 95-100.
- Engli, M. Kirsivali-Farmer, K. (1993). Needs of family members of critically ill patients with and without acute brain injury. *Journal of Neuroscience Nursing, 25*, 78-85.
- Ergh, T., Rapport, L., Coleman, R., & Hanks, R. (2002). Predictors of caregiver and family functioning following traumatic brain injury: Social support moderates caregiver distress. *Journal of Head Trauma Rehabilitation, 17*, 155-174.
- Everstine, D. & Everstine, L. (1993). *The trauma response – Treatment for emotional injury*. New York, N.Y.: W.W. Norton & Co.
- Foss, C. (2002). Gender bias in nursing care? Gender-related differences in patient satisfaction with the quality of nursing care. *Scandinavian Journal of Caring Science, 16*, 19-26.
- Gagnon, L. (1992). Perceptions of nurse caring behaviors towards family members in the critical care setting. Unpublished Masters Thesis, McGill University: Montreal, Quebec, Canada.
- Gallagher, R. & Rowell, P. (2003). Claiming the future of nursing through nursing-sensitive quality indicators. *Nursing Administration Quarterly, 27*, 273-284.
- Gardner, A. & Sibthorpe, B. (2002). Will he get back to normal? Survival and functional status after intensive care therapy. *Intensive and Critical Care Nursing, 18*, 138-145.
- Goodell, T. & Hanson, S. (1999). Nurse-family interactions in adult critical care: A Bowen family systems perspective. *Journal of Family Nursing, 5*, 72-91.
- Gottlieb, L. & Rowat, K. (1987). The McGill model of nursing: A practice-derived model. *Advances in Nursing Science, 9*, 51-61.
- Grenier, R. (1998). La qualité des soins sous l'angle de la satisfaction des patients. *Journal de Réadaptation Médicale, 3*, 87-90.
- Grossman, M. (1995). Received support and psychological adjustment in critically-injured patients and their family. *Journal of Neuroscience Nursing, 27*, 9-23.
- Giuliano, K. K., Guiliano, A. J., Bloniasz, E., Quirk, P., & Wood, J. (2000). A quality-improvement approach to meeting the needs of critically ill patients and their families. *Dimensions of Critical Care Nursing, 19*, 30-34.

- Halm, M., Myers, N., & Bennetts, P. (2000). Providing spiritual care to cardiac patients: Assessment and implications for practice. *Critical Care Nurse, 4*, 54-72.
- Harrison, E. (1995). Nurse caring and the new health care paradigm. *Journal of Nursing Care Quality, 9*, 14-23.
- Hauber, R., & Testani-Dufour, L. (2000). Living in limbo : the low-level brain-injured patient and the patient's family. *Journal of Neuroscience Nursing, 32*, 22-26.
- Henneman, E.A., & Cardin, S. (2002). Family-centered critical care: A practical approach to making it happen. *Critical Care Nurse, 22*, 12-19.
- Heyland, D. K., & Tranmer., J. E. (2001). Measuring family satisfaction with care in the intensive care unit: the development of a questionnaire and preliminary results. *Journal of Critical Care, 16*, 142-149.
- Heyland, D. K., Rocker, G.M., Dodek, P. M., Kutsogiannis, D. J., Konopad, E., Cook D. J., Peters, S., Tranmer, J. E., & O'Callaghan, C. J. (2002). Family satisfaction with care in the intensive care unit: Results of a multiple center study. *Critical Care Medicine, 30*, 1413-1418.
- Hopkins, A. (1994). The trauma nurse's role with families in crisis. *Critical Care Nurse, 4*, 35-43.
- Huggins, K.N., Gandy, W. M., & Kohut, C.D. (1993). Emergency department patients' perception of nurse caring behaviours. *Heart & Lung, 22*, 356-64.
- Johansson, I., Hildingh, C., & Fridlund, B. (2002). Coping strategies when an adult next-of-kin/close friend is in critical care: A grounded theory analysis. *Intensive and Critical Care Nursing, 18*, 96-108.
- Johnson, D., Wilson, M., Cavanaugh, B., Bryden, C., Gudmundson, D., & Moodley, O. (1998). Measuring the ability to meet family needs in an intensive care unit. *Critical Care Medicine, 26*, 266-271.
- Keenan, K. (1995). The role of nursing assessment of traumatic events in sudden injury, illness and death. *Critical Care Nursing Clinics of North America, 3*, 483-488.
- Kimble, L. (2003). Patients' perceptions of nurse caring behaviours in an emergency department. Unpublished Masters Thesis, Marshall University: Huntington, WV.
- Kosco, M., & Warren, N. (2000). Critical care nurses' perceptions of family needs as met. *Critical Care Nursing Quarterly, 23*, 60-72.

- Lange, P. (2001). Family stress in the intensive care unit. *Critical Care Medicine*, 29, 2025-2026.
- Larrabee, J. H. & Bolden, L.V. (2001). Defining patient-perceived quality of nursing care. *Journal of Nursing Care Quality*, 16, 34-60.
- Larson, P. & Ferketich, S. (1993). Patients' satisfaction with nurses' caring during hospitalization. *Western Journal of Nursing Research*, 15, 690-707.
- Larsson, B., & Larsson, G. (1999). Patients' views on quality of care: do they merely reflect their sense of coherence? *Journal of Advanced Nursing*, 30, 33-39.
- Lee, I.Y., Chien, W. T., & MacKenzie, A.E. (2000). Needs of families with a relative in a critical care unit in Hong Kong. *Journal of Clinical Nursing*, 9, 46-54.
- Leininger, M. (1988). *Caring: An essential human need*. Detroit, MI: Wayne State University Press.
- Leske, J. (2003). Comparison of family stresses, strengths, and outcomes after trauma and surgery. *AACN Clinical Issues: Advanced Practice in Acute & Critical Care*, 14, 33-41.
- Leske, J. (1998). Treatment for family members in crisis after critical injury. *AACN Clinical Issues: Advanced Practice in Acute & Critical Care*, 9, 129-139.
- Leske, J. (1992). The impact of critical injury as described by a spouse. *Clinical Nursing Research*, 1, 385-399.
- Lynn, M. & McMillen, B. (1999). Do nurses know what patients think is important in nursing care? *Journal of Nursing Care Quality*, 13, 65-74.
- Manogin, T. W., Bechtel, G. A., & Rami, J.S. (2000). Caring behaviours by nurses: Women's perceptions during childbirth. *Journal of Obstetrical Gynecological and Neonatal Nursing*, 29, 153-157.
- Marck, P. (2000). Nursing in a technological world: Searching for healing communities. *Advances in Nursing Science*, 23, 62-81.
- Marini, B. (1999). Institutionalized older adults' perceptions of nurse caring behaviours. *Journal of Gerontological Nursing*, 25, 10-16.
- Mathis, M. (1984). Personal needs of family members of critically ill patients with and without acute brain injury. *Journal of Neurosurgical Nursing*, 16, 36-44.

- McClowry, M. (1992). Family functioning during a critical illness: A systems theory perspective. *Critical Care Nursing Clinics of North America*, 4, 559-564.
- McKinley, S., Nagy, S., Stein-Parbury, J., Bramwell, M., & Hudson, J. (2002). Vulnerability and security in seriously ill patients in intensive care. *Intensive and Critical Care Nursing*, 18, 27-36.
- Meyers, T., Eichhorn, D., Guzzetta, C., Clark, A., Klein, J., Taliaferro, E., & Calvin, A. (2000). Family presence during invasive procedures and resuscitation. *American Journal of Nursing*, 100, 32-42.
- Mullins, I. (1996). Nurse caring behaviours for persons with acquired immunodeficiency syndrome/human immunodeficiency virus. *Applied Nursing Research*, 9, 18-23.
- National Trauma Registry, Canadian Institute for Health Information (CIHI) (2001 Report). Retrieved February 2, 2004, from http://secure.cihi.ca/cihiweb/en/media_11apr2001_tab2_e.html
- Nussbaum, G. (2003). Spirituality in critical care. *Critical Care Nursing Quarterly*, 26, 214-220.
- O'Connell, E., & Landers, M. (2008). The importance of critical care nurses' caring behaviours as perceived by nurses and relatives. *Intensive and Critical Care Nursing*, 24, 349-358.
- Palmer, Donabedian & Povar. (1991). *Striving for quality in health care: An inquiry into policy & practice*. Ann Arbor, MI: Health Administration Press.
- Pochard, F., Azoulay, E., Chevret, S., Lemaire, F., Hubert, P., Canoui, P., Grassin, M., Zittoun, R., le Gall, J., Dhainaut, J., Schlemmer, B. (2001). Symptoms of anxiety and depression in family members of intensive care unit patients: Ethical hypothesis regarding decision-making capacity. *Critical Care Medicine*, 29, 1893-1897.
- Powers, H., Goldstein, C., Plank, G., Thomas, K., & Conkright, L. (2000). The value of patient- and family-centered care. *American Journal of Nursing*, 100, 84-88.
- Rahmqvist, M. (2001). Patient satisfaction in relation to age, health status, and other background factors: a model for comparisons of care units. *International Journal for Quality in Health Care*, 13, 385-390.
- Raper, J., Davis, B., & Scott, L. (1999). Patient satisfaction with emergency department triage nursing care: A multicenter study. *Journal of Nursing Care Quality*, 13, 11-24.

- Risser, N. (1975). Development of an instrument to measure patient satisfaction with nurses and nursing care in primary care settings. *Nursing Research, 24*, 45-52.
- Schultz, A. A., Bridgham, C., Smith, M. E., & Higgins, D. (1998). Perceptions of caring: Comparison of antepartum and postpartum patients. *Clinical Nursing Research, 7*, 363-378.
- Silvestri, L., Ziran, B., Barrette-Grischow, M-K., & Hull, T. (2008). Is perception of nursing care among orthopaedic trauma patients influenced by age? *Journal of Orthopaedic Nursing, 12*, 64-68.
- Spooner, S. (2003). Survey response rates and overall patient satisfaction scores: What do they mean? *Journal of Nursing Care Quality, 18*, 162-174.
- Takman, C., & Severinsson, E. (2003). The needs of significant others within intensive care-the perspectives of Swedish nurses and physicians. *Intensive and Critical Care Nursing, 20*, 22-31.
- Thomas, R. (1987). Methodological issues and problems in family health care research. *Journal of Marriage and the Family, 49*, 65-70.
- Uzon, O. (2001). Patient satisfaction with nursing care at a university hospital in Turkey. *Journal of Nursing Care Quality, 16*, 24-33.
- Valcourt, C. (2000). Satisfaction des personnes âgées atteintes d'un cancer quant aux soins infirmiers palliatifs reçus a domicile. Unpublished Masters Thesis, Université de Montréal: Montréal, Qc, Canada.
- Von Essen, L., & Sjoden, P. (2004). The importance of nurse caring behaviours as perceived by Swedish hospital patients and nursing staff. *International Journal of Nursing Studies, 40*, 487-497.
- Wall, R. J., Curtis, J. R., Cooke, C. R., & Engelberg, R. A. (2007). Family satisfaction in the ICU: Differences between families of survivors and nonsurvivors. *Chest, 132*, 1425-1433.
- Wall, R. J., Engelberg, R. A., Downey, L., Heyland, D. K., & Curtis, J. R. (2007). Refinement, scoring, and validation of the Family Satisfaction in the Intensive Care Unit (FS-ICU) survey. *Critical Care Medicine, 35*, 271-279.
- Wallis, M. (1998). Responding to suffering – The experience of professional nurse caring in the coronary care unit. *International Journal for Human Caring, 2*, 35-44.
- Warren, N. A. (2002). Critical care family members' satisfactions with bereavement experiences. *Critical Care Nursing Quarterly, 25*, 54-61.

- Washington, G.T. (2001). Family advocates: caring for families in crisis. *Dimensions of Critical Care Nursing, 20*, 36-40.
- Wasser, T., Pasquale, M. A., Matchett, S. C., Bryan, Y., & Pasquale, M. (2001). Establishing reliability and validity of the Critical Care Family Satisfaction Survey. *Critical Care Medicine, 29*, 192-196.
- Watson, J. (1985). *Nursing: Human science and Human care*. New York: National League for Nursing.
- Watson, J. (2002). *Assessing and measuring caring in nursing and health science*. New York: Springer.
- Watson, J. (2008). *Assessing and measuring caring in nursing and health science*. 2nd ed. New York: Springer.
- Wilkin, K., & Slevin, E. (2004). The meaning of caring to nurses: an investigation into the nature of caring work in an intensive care unit. *Journal of Clinical Nursing, 13*, 50-59.
- Wilkinson, P. (1995). A qualitative study to establish the self-perceived needs of family members of patients in a general intensive care unit. *Intensive and Critical Care Nursing, 11*, 77-85.
- Wolf, Z., Colahan, M., Costello, A., Warwick, F., Ambrose, M., & Giardino, E. (1998). Relationship between nurse caring and patient satisfaction. *Medsurg Nursing, 7*, 99-105.
- Wolf, Z. R., Miller, P. A., & Devine, M. (2003). The relationship between nurse caring and patient satisfaction in patients having invasive cardiac procedures. *Medsurg Nursing, 12*, 391-396.
- Wolf, Z., & Smith, P. (1997). Direct and indirect care: Defining domains of nursing practice. *International Journal for Human Caring, 1*, 43-52.
- Yellen, E., Davis, G., & Ricard, R. (2002). The measurement of patient satisfaction. *Journal of Nursing Care Quality, 16*, 23-29.

Appendix I

Letter of permission for use of CBA from authors
Sherill Nones Cronin and Barbara Harrison

And Caring Behaviors Assessment Instrument (Original Version)

November 17, 2003

Sherill Nones Cronin, PhD, RN, C
MSN Program Director and Professor of Nursing
Lansing School of Nursing and Health Sciences
Bellarmine University
2001 Newburg Road
Louisville, KY 40205
(502) xxx-xxxx

Dear Dr. Cronin,

My name is Lisa Connell, and I am a Master's level nursing student at the University of Montreal. In preparing to execute a quantitative study on one aspect of nursing care quality (specifically, satisfaction with nurse caring). I came upon your Caring Behaviors Assessment tool in the Heart and Lung Journal (1988). I would like to respectfully request your permission for its use. Given that your tool has as a basis Watson's Carative Factors, it would be ideal for my project, since I am using Watson (Caring) in my conceptual framework.

I plan on using the Caring Behaviors Assessment on *family members*, to evaluate the satisfaction with, and importance of, nurse caring behaviors *toward them* while in a critical care unit. To do so, I plan on adapting both the original version, and the already translated version (French translation of Carmen Valcourt, University of Montreal, 2000) for use on family members. I also plan on exploring the differences in importance of nurse caring behaviors between family members of traumatically injured patients versus family members of critically ill (non-traumatically injured) patients in the critical care setting.

I plan on performing a small pre-test of the new version that I will adapt for family members.

If it would be possible for you to grant this request, along with a copy of the tool, I would be very grateful. Also, any comments that you might have regarding the use of the CBA or my proposed project would be greatly appreciated.

Thank you in advance for your consideration,

Lisa Connell, M. Sc. student – Faculty of Nursing, University of Montreal
XXXXXXXXXXXXX.
Montreal, Quebec
Canada
XXXXXXXXX

e-mail: XXXXXXXXXXXXX
telephone : XXXXXXXXXXXX

BELLARMINE

UNIVERSITY

November 19, 2003

Lisa Connell

Dear Lisa:

Thank you for your interest in the Caring Behaviors Assessment. Enclosed is a copy of the tool and additional information regarding its development. Please feel free to use the CBA. In return, we ask that you acknowledge its authorship (reference to the Heart & Lung article is sufficient) and, upon completion of your work, please send us a copy of your abstract. We would also appreciate the results of any further reliability and validity testing of the CBA and a copy of your translated version.

We will be most interested in your findings. If we can answer any questions or be of any further assistance, please feel free to contact us.

Sincerely,
LANSING SCHOOL OF NURSING AND HEALTH
SCIENCES

Sherill Nones Cronin, PhD, RN, C
Professor

Barbara Harrison, MSN, RN, C
Assistant Professor

TITLE: Caring Behaviors Assessment (CBA)
AUTHORS: Sherill Nones Cronin, RN, C, PhD
 Barbara Harrison, RN, C, MSN

Development of the CBA

The Caring Behaviors Assessment (CBA) was developed to assess the relative contribution of identified nursing behaviors to the patient's sense of feeling cared for and about.

The original CBA listed 61 nursing behaviors, ordered in seven subscales which are congruent with Watson's carative factors. The subscales, with their respective item numbers and corresponding reliabilities, are:

<u>Subscale</u>	<u>Items</u>	<u>Cronbach alpha</u>
Humanism/Faith-hope/ Sensitivity	1-16	.84
Helping/trust	17-27	.76
Expression of positive/ negative feelings	28-31	.67
Teaching/learning	32-39	.90
Supportive/protective/ corrective environment	40-49 (items 50 & 51 added after initial study)	.79
Human needs assistance	52-60	.89
Existential/phenomenological/ spiritual forces	61-63	.66

Validity

Face and content validity were established by a panel of four content specialists familiar with Watson's conceptual model. The congruency of each behavior with its given subscale was rated by the panel and those items with interrater reliabilities of less than .75 were recategorized into more appropriate subscales.

Based on the results of the study described in the July/August, 1988 issue of Heart and Lung, two items were added to the Supportive/protective/corrective environment subscale (Items 50 & 51). Reported alpha coefficients do not include these items.

CARING BEHAVIORS ASSESSMENT

Listed below are things nurses might do or say to make you feel cared for and about. Please decide how important each of these would be in making you feel cared for and about. For each item, indicate if it would be of:

	Much Importance 5	4	3	2	Little Importance 1
Please circle the number that tells how important each item would be to you.					
1. Treat me as an individual.	5	4	3	2	1
2. Try to see things from my point of view.	5	4	3	2	1
3. Know what they're doing.	5	4	3	2	1
4. Reassure me.	5	4	3	2	1
5. Make me feel someone is there if I need them.	5	4	3	2	1
6. Encourage me to believe in myself.	5	4	3	2	1
7. Point out positive things about me and my condition.	5	4	3	2	1
8. Praise my efforts.	5	4	3	2	1
9. Understand me.	5	4	3	2	1
10. Ask me how I like things done.	5	4	3	2	1
11. Accept me the way I am.	5	4	3	2	1
12. Be sensitive to my feelings and moods.	5	4	3	2	1
13. Be kind and considerate.	5	4	3	2	1
14. Know when I've "had enough" and act accordingly (for example, limiting visitors)	5	4	3	2	1
15. Maintain a calm manner.	5	4	3	2	1
16. Treat me with respect.	5	4	3	2	1
17. Really listen to me when I talk.	5	4	3	2	1
18. Accept my feelings without judging them.	5	4	3	2	1
19. Come into my room just to check on me.	5	4	3	2	1
20. Talk to me about my life outside the hospital.	5	4	3	2	1
21. Ask me what I like to be called.	5	4	3	2	1
22. Introduce themselves to me.	5	4	3	2	1

	Much Importance 5	4	3	2	1 Little Importance	
Please circle the number that tells how important each item would be to you.						
23.	Answer quickly when I call for them.	5	4	3	2	1
24.	Give me their full attention when with me.	5	4	3	2	1
25.	Visit me if I move to another hospital unit.	5	4	3	2	1
26.	Touch me when I need it for comfort.	5	4	3	2	1
27.	Do what they say they will do.	5	4	3	2	1
28.	Encourage me to talk about how I feel.	5	4	3	2	1
29.	Don't become upset when I'm angry.	5	4	3	2	1
30.	Help me understand my feelings.	5	4	3	2	1
31.	Don't give up on me when I'm difficult to get along with.	5	4	3	2	1
32.	Encourage me to ask questions about my illness and treatment.	5	4	3	2	1
33.	Answer my questions clearly.	5	4	3	2	1
34.	Teach me about my illness.	5	4	3	2	1
35.	Ask me questions to be sure I understand.	5	4	3	2	1
36.	Ask me what I want to know about my health/illness.	5	4	3	2	1
37.	Help me set realistic goals for my health.	5	4	3	2	1
38.	Help me plan ways to meet those goals.	5	4	3	2	1
39.	Help me plan for my discharge from the hospital.	5	4	3	2	1
40.	Tell me what to expect during the day.	5	4	3	2	1
41.	Understand when I need to be alone.	5	4	3	2	1
42.	Offer things (position changes, blankets, back rub, lighting, etc.) to make me more comfortable.	5	4	3	2	1
43.	Leave my room neat after working with me.	5	4	3	2	1
44.	Explain safety precautions to me and my family.	5	4	3	2	1
45.	Give my pain medication when I need it.	5	4	3	2	1

Much
Importance
5

4

3

2

1
Little
Importance

Please circle the number that tells how important each item would be to you.

46.	Encourage me to do what I can for myself.	5	4	3	2	1
47.	Respect my modesty (for example, keeping me covered).	5	4	3	2	1
48.	Check with me before leaving the room to be sure I have everything I need within reach.	5	4	3	2	1
49.	Consider my spiritual needs.	5	4	3	2	1
50.	Are gentle with me.	5	4	3	2	1
51.	Are cheerful.	5	4	3	2	1
52.	Help me with my care until I'm able to do it for myself	5	4	3	2	1
53.	Know how to give shots, IVs etc.	5	4	3	2	1
54.	Know how to handle equipment (for example, monitors)	5	4	3	2	1
55.	Give my treatments and medications on time	5	4	3	2	1
56.	Keep my family informed of my progress.	5	4	3	2	1
57.	Let my family visit as much as possible.	5	4	3	2	1
58.	Check my condition very closely.	5	4	3	2	1
59.	Help me feel like I have some control.	5	4	3	2	1
60.	Know when it's necessary to call the doctor.	5	4	3	2	1
61.	Seem to know how I feel.	5	4	3	2	1
62.	Help me see that my past experiences are important.	5	4	3	2	1
63.	Help me feel good about myself.	5	4	3	2	1

Is there anything else that nurses could do or say to make you feel cared for and about?
If so, what?

Appendix II

**Inter-scale Pearson correlations for caring dimensions –
Importance (Below the Diagonal) and Satisfaction (Above the
Diagonal)**

Dimension	1.Humanism Faith / Hope	2.Helping / Trust	3.Expression	4.Teaching Learning	5.Supportive Protective	6. Human Needs Assistance	7.Existential
1.Humanism / Faith / Hope	1	.85**	.80**	.79**	.81**	.57**	.79**
2.Helping / Trust	.71**	1	.78**	.67**	.74**	.51**	.76**
3.Expression of Positive / Negative Feelings	.73**	.74**	1	.75**	.77**	.59**	.86**
4.Teaching / Learning	.67**	.66**	.69**	1	.85**	.65**	.77**
5.Supportive / Protective / Corrective Environment	.61**	.64**	.71**	.72**	1	.71**	.74**
6.Human Needs Assistance	.36*	.44**	.34**	.42**	.61**	1	.57**
7.Existential / Phenomenological / Spiritual Forces	.52**	.49**	.58**	.51**	.62**	.52**	1

**p<0.01; *p<0.05

Appendix III

Modified Versions of CBA
For Family members (English) (modified by Connell)
For Family members (French) (modified by Valcourt, modified by Connell)

**Modified “Caring Behaviours Assessment”
Importance of Nurse Caring Behaviours and
Satisfaction with Nurse Caring Behaviours**

Before answering the questionnaire, please read the following:

Listed below are things that nurses might do or say to make you feel cared for and about. I would like to know the level of importance and the level of satisfaction that you feel for each of the nursing behaviours indicated below. **Please indicate, 1) the level of importance of each item to you and 2) the level of satisfaction you have with each item.**

There are no right or wrong answers. I am only interested in your perceptions related to these nurse caring behaviours.

Please read carefully each of the following statements, and **circle the number that corresponds most appropriately with your opinion about the following nurse caring behaviours.**

It is very important that you respond to each statement.

Relating to the care you have received from nurses while in the ICU:

Please circle the number that reflects how **Important** each behaviour is to you:

Very Important				Not at all Important
5	4	3	2	1

Then, circle the number that reflects how **Satisfied** you are with the same behaviour:

Very Satisfied				Not at all Satisfied
5	4	3	2	1

The Nurses:	Very Important					Not at all Important				
	5	4	3	2	1	5	4	3	2	1
1. Treat me as an individual	5	4	3	2	1	5	4	3	2	1
2. Try to see things from my point of view.	5	4	3	2	1	5	4	3	2	1
3. Know what they're doing.	5	4	3	2	1	5	4	3	2	1
4. Reassure me.	5	4	3	2	1	5	4	3	2	1
5. Make me feel someone is there if I need them.	5	4	3	2	1	5	4	3	2	1
6. Encourage me to believe in myself.	5	4	3	2	1	5	4	3	2	1
7. Point out positive things about my loved one's condition.	5	4	3	2	1	5	4	3	2	1
8. Praise my efforts.	5	4	3	2	1	5	4	3	2	1
9. Understand me.	5	4	3	2	1	5	4	3	2	1
10. Ask me how I like things done.	5	4	3	2	1	5	4	3	2	1
11. Accept me the way I am	5	4	3	2	1	5	4	3	2	1
12. Are sensitive to my feelings and moods.	5	4	3	2	1	5	4	3	2	1
13. Are kind and considerate	5	4	3	2	1	5	4	3	2	1
14. Know when I've "had enough" and act accordingly (for example, limiting other visitors)	5	4	3	2	1	5	4	3	2	1
15. Maintain a calm manner	5	4	3	2	1	5	4	3	2	1
16. Treat me with respect.	5	4	3	2	1	5	4	3	2	1
17. Really listen to me when I talk.	5	4	3	2	1	5	4	3	2	1
18. Accept my feelings without judging them.	5	4	3	2	1	5	4	3	2	1

The Nurses:	Very Important					Not at all Important				
	5	4	3	2	1	5	4	3	2	1
19. Come into the room to check on me.	5	4	3	2	1	5	4	3	2	1
20. Talk to me about my life outside the hospital.	5	4	3	2	1	5	4	3	2	1
21. Ask me what I like to be called.	5	4	3	2	1	5	4	3	2	1
22. Introduce themselves to me.	5	4	3	2	1	5	4	3	2	1
23. Answer quickly when I call for them.	5	4	3	2	1	5	4	3	2	1
24. Give me their full attention when with me.	5	4	3	2	1	5	4	3	2	1
25. Often find out how I am doing.	5	4	3	2	1	5	4	3	2	1
26. Touch me when I need it for comfort.	5	4	3	2	1	5	4	3	2	1
27. Do what they say they will do.	5	4	3	2	1	5	4	3	2	1
28. Encourage me to talk about how I feel.	5	4	3	2	1	5	4	3	2	1
29. Don't become upset when I'm angry.	5	4	3	2	1	5	4	3	2	1
30. Help me understand my feelings.	5	4	3	2	1	5	4	3	2	1
31. Don't give up on me when I'm difficult to get along with.	5	4	3	2	1	5	4	3	2	1
32. Encourage me to ask questions about my loved one's illness and treatment.	5	4	3	2	1	5	4	3	2	1
33. Answer my questions clearly.	5	4	3	2	1	5	4	3	2	1
34. Teach me about my loved one's illness.	5	4	3	2	1	5	4	3	2	1
35. Ask me questions to be sure I understand.	5	4	3	2	1	5	4	3	2	1
36. Ask me what I want to know about my loved one's health/illness.	5	4	3	2	1	5	4	3	2	1
37. Help me set realistic goals for myself.	5	4	3	2	1	5	4	3	2	1

The Nurses:	Very Important					Not at all Important				
	Very Satisfied					Not at all Satisfied				
38. Help me plan ways to meet those goals.	5	4	3	2	1	5	4	3	2	1
39. Helps me plan for my loved one's discharge from the hospital.(vs. unit) (Fr)	5	4	3	2	1	5	4	3	2	1
40. Tell me what to expect during the day.	5	4	3	2	1	5	4	3	2	1
41. Understand when I need to be alone.	5	4	3	2	1	5	4	3	2	1
42. Offer things (a chair, lighting, etc.) to make me more comfortable.	5	4	3	2	1	5	4	3	2	1
43. Leave the room neat after working with my loved one.	5	4	3	2	1	5	4	3	2	1
44. Explain safety precautions to me.	5	4	3	2	1	5	4	3	2	1
45. Gives my loved one pain medication when he/she needs it.	5	4	3	2	1	5	4	3	2	1
47. Respects my loved one's modesty (for example, keeping him / her covered).	5	4	3	2	1	5	4	3	2	1
48. Check with me before leaving the room to be sure I have everything I need.	5	4	3	2	1	5	4	3	2	1
49. Consider my spiritual needs.	5	4	3	2	1	5	4	3	2	1
50. Are gentle with me.	5	4	3	2	1	5	4	3	2	1
51. Are cheerful.	5	4	3	2	1	5	4	3	2	1
53. Know how to give shots, IVs,etc.	5	4	3	2	1	5	4	3	2	1
54. Know how to handle equipment (for example, monitors and IV pumps)	5	4	3	2	1	5	4	3	2	1
55. Give treatments and medications on time.	5	4	3	2	1	5	4	3	2	1
56. Keep me informed of my loved one's progress.	5	4	3	2	1	5	4	3	2	1

The Nurses:	Very Important					Not at all Important					Very Satisfied					Not at all Satisfied				
	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1
57. Let me visit my loved one as much as possible.	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1
58. Check my loved one's condition very closely.	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1
59. Help me feel like I have some control.	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1
60. Know when it's necessary to call the doctor	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1
61. Seem to know how I feel.	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1
62. Help me see that my past experiences are important.	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1
63. Help me feel good about myself.	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1

**« Caring Behaviours Assessment » Modifié
Importance des Soins Infirmiers
et Satisfaction avec les Soins Infirmiers**

Avant de répondre au questionnaire, SVP lire attentivement:

Les énoncés suivants décrivent des soins, des façons de faire et de dire, que les infirmières peuvent utiliser afin que vous sentiez que l'on prenne bien soin de vous. J'aimerais savoir par ce questionnaire **le niveau d'importance que vous accordez à chacun des soins, et le niveau de satisfaction que vous accordez à chacun des soins** qui apparaissent dans la liste ci-dessous. Il n'y a pas de bonnes ou de mauvaises réponses. Je désire simplement savoir vos opinions et vos impressions.

Veillez lire attentivement chacun des énoncés. Ensuite, en pensant à votre situation actuelle, il s'agit pour vous d'indiquer le niveau d'importance que vous accordez à chacun des énoncés suivants, en **encerclant le chiffre qui correspond le mieux à votre opinion**. Ensuite, indiquer le niveau de satisfaction que vous accordez au même énoncé, **en encerclant le chiffre qui correspond le mieux à votre opinion**.

Il est très important que vous répondiez à chaque énoncé :

Concernant les comportements des infirmières à votre égard, en tant que membre de famille :

Encerclez le chiffre qui indique **le niveau d'importance** de chaque comportement à vos yeux :

Très Important				Pas du Tout Important
5	4	3	2	1

Pour le même comportement, encerclez le chiffre qui indique **le niveau de satisfaction** à vos yeux :

Très Satisfait				Pas du Tout Satisfait
5	4	3	2	1

Les Infirmières (ères) :	Très Important					Pas du Tout Important					Très Satisfait					Pas du tout Satisfait				
	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1
1.Me traitent comme un individu à part entière.	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1
2.Essaient de voir les choses de mon point de vue.	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1
3.Savent ce qu'elles font, sont compétentes.	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1
4.Me réconfortent.	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1
5.Me font sentir qu'il y a quelqu'un pour moi, si j'en ai besoin.	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1
6.M'encouragent à croire en moi.	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1
7.Attirent mon attention sur les aspects positifs me concernant ou concernant l'état de santé de mon proche.	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1
8.Me félicitent pour mes efforts.	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1
9.Me comprennent.	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1
10.Me demandent comment j'aime que ce qu'elles ont à faire pour moi soit fait.	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1
11.M'acceptent comme je suis.	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1
12. Sont sensibles à mes sentiments et à mes états d'âme.	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1
13. Sont aimables et prévenantes.	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1
14. Se rendent compte quand j'en ai 'assez' et agissent en conséquence (par exemple en suggérant de limiter le nombre d'autres visiteurs)	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1

Les Infirmières (ères) :	Très Important					Pas du Tout Important				
	5	4	3	2	1	5	4	3	2	1
15. Restent calmes en tout temps.	5	4	3	2	1	5	4	3	2	1
16. Me démontrent du respect.	5	4	3	2	1	5	4	3	2	1
17. M'écoutent attentivement quand je parle.	5	4	3	2	1	5	4	3	2	1
18. Acceptent mes sentiments sans porter de jugement.	5	4	3	2	1	5	4	3	2	1
19. Prennent le temps de venir me voir, juste pour savoir comment je vais.	5	4	3	2	1	5	4	3	2	1
20. Me parlent d'autres sujets, ma vie à l'extérieur de l'hôpital.	5	4	3	2	1	5	4	3	2	1
21. Me demandent comment je préfère être appelé(e).	5	4	3	2	1	5	4	3	2	1
22. Se présentent en précisant leur nom.	5	4	3	2	1	5	4	3	2	1
23. Répondent rapidement à mon appel.	5	4	3	2	1	5	4	3	2	1
24. M'accordent toute leur attention quand elles sont avec moi.	5	4	3	2	1	5	4	3	2	1
25. Prennent régulièrement de mes nouvelles.	5	4	3	2	1	5	4	3	2	1
26. Me touchent quand j'ai besoin d'être réconforté(e).	5	4	3	2	1	5	4	3	2	1
27. Respectent leurs engagements: font ce qu'elles disent qu'elles feront.	5	4	3	2	1	5	4	3	2	1
28. M'encouragent à exprimer librement ce que je ressens.	5	4	3	2	1	5	4	3	2	1
29. Gardent leur calme quand je suis en colère.	5	4	3	2	1	5	4	3	2	1
30. M'aident à comprendre ce que je ressens.	5	4	3	2	1	5	4	3	2	1
31. Ne me laissent pas tomber lorsqu'il est difficile de s'entendre avec moi.	5	4	3	2	1	5	4	3	2	1

	Très Important					Pas du Tout Important					Très Satisfait					Pas du tout Satisfait				
Les Infirmiers (ères) :																				
32.M'encouragent à poser des questions au sujet de l'état de santé de mon proche.	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1
33. Répondent clairement à mes questions.	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1
34. Me renseignent au sujet de l'état de santé de mon proche.	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1
35. Me posent des questions pour s'assurer que j'ai bien compris.	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1
36. Me demandent ce que je desire savoir au sujet de l'état de mon proche.	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1
37. M'aident à me fixer des buts réalistes.	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1
38.M'aident à établir un plan pour atteindre ces buts.	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1
39. M'aident à planifier mes besoins et à trouver des moyens pour les satisfaire (en me suggérant des ressources)	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1
40.Me renseignent sur les activités planifiées pour la journée.	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1
41.Comprennent quand j'ai besoin d'être seul(e).	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1
42.Posent des gestes pour me rendre plus confortable (exemples : m'offrir une chaise, d'ajuster l'éclairage).	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1
43.Remettent les choses en ordre après s'être occupées de mon proche.	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1
44.M'expliquent les mesures de précautions à prendre pour assurer la sécurité de mon proche.	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1
45. Vérifient si mon proche est soulagé par la médication.	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1

Les Infirmières (ères) :	Très Important					Pas du Tout Important					Très Satisfait					Pas du tout Satisfait				
	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1
47. Respectent l'intimité de mon proche.	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1
48. Vérifient, avant de quitter la chambre, si j'ai tout ce dont j'ai besoin.	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1
49. Prennent en considération mes besoins spirituels.	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1
50. Font preuve de douceur avec moi.	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1
51. Sont de bonne humeur.	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1
53. Savent comment donner des piqûres, des injections intraveineuses, etc.	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1
54. Savent se servir de l'équipement spécialisé (exemples : pompes ou moniteurs).	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1
55. Font les traitements ou donnent les médicaments à l'heure prévue.	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1
56. Me tiennent au courant de l'état de santé de mon proche.	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1
57. Me laisse visiter mon proche autant que possible.	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1
58. Vérifient l'état de mon proche étroitement	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1
59. M'aident à sentir que j'ai un certain contrôle.	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1
60. Reconnassent quand le besoin d'appeler le médecin se fait sentir.	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1
61. Semblent savoir comment je me sens.	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1
62. M'aident à voir que les expériences que j'ai vécues dans ma vie sont importantes.	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1
63. M'aident à me sentir bien dans ma peau.	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1

Appendix IV

Socio-demographic questionnaire

**Importance of Nurse Caring Behaviours and
Satisfaction with Nurse Caring Behaviours
Socio-Demographic Questionnaire**

For each question, please **circle** the appropriate answer **or fill in the blank**:

1. Which gender are you? Male Female

2. What is your date of birth? Year _____ Month _____

3. What is your relationship to the patient?

Mother Sister Child Partner (including husband/wife)

Father Brother Other (please specify) _____

4. Have you ever visited an ICU before? Yes No

5. What is your highest completed level of education?

Elementary School High School College (CEGEP) University

6. How old is the patient? _____ years

7. Which gender is the patient? Male Female

8. What is the original reason for the patient's ICU stay?

Car / motorized vehicle collision

Heart Surgery

Fall

Pneumonia and / or breathing problems

Other (please specify) _____

9. How would you rate the seriousness of the patient's condition?
(please indicate with an 'X' on the scale):

Not very Serious	Very, very Serious

10. In this current hospitalization, how long has the patient been in the ICU ?

_____ days

Appendix V
Consent Forms

INFORMATION AND CONSENT FORM

A COMPARATIVE ASSESSMENT OF SATISFACTION WITH AND IMPORTANCE OF NURSING INTERACTIONS BY FAMILY MEMBERS OF CRITICALLY INJURED AND CRITICALLY ILL PATIENTS IN A CRITICAL CARE UNIT

Investigators

Lisa Connell – MSc (Student Candidate)- University of Montreal; Administrative Head, Trauma Program (Interim) MUHC
Sylvie Cossette – PhD, Assistant Professor, Faculty of Nursing, University of Montreal

Introduction

You are being asked to participate in this study because you are the family member of a patient in a critical care unit.

I am a student at the University of Montreal in the final year of my Master's degree. As part of my thesis, I am doing a research project under the guidance of Dr. Sylvie Cossette, School of Nursing, University of Montreal. I am interested in learning more about your perceptions of nursing interactions while you are in the critical care unit. I am especially interested in learning what things make a difference in what you would find important, and what you are satisfied with, in relation to nursing care.

Before deciding to participate in the study, you should clearly understand its requirements, risks and benefits. This document provides information about the study, and it may contain words you do not fully understand. Please read it carefully and ask the study staff any questions you may have. They will discuss the study with you in detail. You may take this form with you and discuss the study with anyone else before making your decision. If you decide to participate, you will be asked to sign this form and a copy will be given to you.

Purpose of the Study

The purpose of this study is to assess and compare different levels of *importance* and *satisfaction* with nursing interactions that family members experience while in a critical care unit. Very little is known about whether or not family members of different patient groups have the same priorities for nursing interactions, and with which nursing interactions they might be more or less satisfied. Often it is assumed that family members of all patient groups have the same needs and priorities for nursing interactions. We will compare family members by 1) different patient diagnoses (traumatic injury versus medical or surgical critical illness); and 2) different socio-demographic characteristics (age, gender, experience with hospitalizations, relationship to patient).

Description of the Study

This study is a comparative study designed to evaluate nurse caring interactions from the perspective of family members in the critical care setting. Family members of both injured patients (critically injured) and patients with critically illness will be asked to rate nurse caring behaviours for importance and satisfaction using a cross-sectional (one point in time) survey approach to collect the data necessary to evaluate the principle objectives of the project.

If you agree to participate in this study, I will ask you to complete a survey. The survey asks about the degree of satisfaction, and degree of importance of nurses' caring behaviours using a questionnaire, and some questions about your background. We will ask one (1) family member per patient, between thirty-six hours (36) and one hundred and twenty (120) hours after the patient's admission to the critical care unit. The goal sample size is sixty-four (64) family members per group, however we may accept less in order to complete the requirements of the study in a specific timeframe. The questionnaire will be filled out in a private room in the intensive care unit, not far from your loved one. It has been known to take about twelve (12) minutes to complete the questionnaire.

Risks and Discomforts

There are no known risks to filling out the questionnaires for this research project. However, some family members may feel uncomfortable completing the questionnaires. It is important to know that if at any time you would like to suspend, re-schedule, or stop completing the questionnaires, this will be respected.

Potential Benefits

You should not expect any direct benefits from participating in this study. However, the information collected from this study may benefit future patients and or their family members. Some family members in similar projects have said that they found it helpful to be able to relate what they find important, and what they are satisfied or dissatisfied with.

Cost and Compensation

You will not be offered any compensation for your participation in this study.

Confidentiality

All information collected during this study will be kept strictly confidential. Your name will not be used on the questionnaire, which will instead be labelled with a number to ensure anonymity. All questionnaires will be locked in a filing cabinet in Dr. Sylvie Cossette's office (the student's supervisor) at the University of Montreal with limited access. The nursing student and her supervisors will be the only people who have access to these materials, and after the project is completed all materials will be destroyed after a five-year period. While the results from this study may be published, your identity will not be revealed in the combined results. Your names and the names of your family member will not appear anywhere. The findings of this project

will be available to you upon request before any paper will be published. Finally for your information, this consent form will be inserted in your family member's hospital chart. You will be given a copy of this form.

In order to verify the research study data, one of the MUHC-Research Ethics Boards may review these records. By signing this consent form, you give us permission to release information regarding your participation in this study to this entity. Your confidentiality will be protected to the extent permitted by applicable laws and regulations.

Voluntary Participation and/or Withdrawal

Your participation in this study is strictly voluntary. You may refuse to participate or may discontinue your participation at any time without explanation, and without penalty. If you decide not to participate, or if you discontinue your participation, you will suffer no prejudice regarding your care or your participation in any other research studies. The investigators may end your participation in the study if it is felt to be in your best interest.

Questions and Contact Information

If you have any questions regarding the study, you should contact the investigator, Lisa Connell, tel. XXX-XXX-XXXX, local XXXX.

If you have any questions regarding your rights as a study participant, you should contact the Ombudsman, tel. XXX-XXX-XXXX, ext. XXXX.

Declaration of Consent

I have read this consent form, and I agree to participate in this research study. I have had the opportunity to ask questions and all my questions have been answered to my satisfaction. I have been given sufficient time to consider the above information and to seek advice if I choose to do so. I will be given a signed copy of this consent form. By signing this consent form, I have not given up any of my legal rights.

Participant

(Print Name)

Date

Investigator

(Print Name)

Witness

(Print Name)

FORMULAIRE DE CONSENTEMENT

ÉTUDE COMPARATIVE DE LA SATISFACTION DES FAMILLES DES PERSONNES GRAVEMENT BLESSÉES AVEC CELLES DES PERSONNES GRAVEMENT MALADES AU SUJET DES INTERACTIONS AVEC LES INFIRMIERS ET DE L'IMPORTANCE QU'ELLES Y ACCORDENT

Chercheures:

Lisa Connell, inf., étudiante à la maîtrise en sciences infirmières, Université de Montréal; gestionnaire par intérim du programme de Traumatologie adulte, CUSM Sylvie Cossette – PhD, professeure adjointe, Faculté des sciences infirmières, Université de Montréal

Introduction

Je suis étudiante à l'Université de Montréal à ma dernière année de Maîtrise en Sciences infirmières. Je suis aussi infirmière au CUSM depuis neuf ans. Dans le cadre de ma maîtrise, je fais un projet de recherche sous la direction de Dr. Sylvie Cossette, professeure adjointe à la faculté des sciences infirmières, à l'Université de Montréal. J'apprécieraï connaître votre opinion au sujet des interactions avec les infirmiers lors du séjour de votre proche à l'unité des soins intensifs. J'aimerais principalement savoir ce que vous trouvez important dans les soins et services prodigués par les infirmiers et votre niveau de satisfaction quant à leurs interventions.

Nous sollicitons votre participation à cette étude parce que vous êtes membre de la famille d'un patient hospitalisé à une unité de soins intensifs.

Avant d'accepter de participer à cette étude, il est important que vous compreniez les risques et les bénéfices. Ce document vous fournira l'information nécessaire. S'il-vous-plaît, veuillez lire attentivement le document et n'hésitez pas à communiquer avec moi si vous avez des questions ou s'il y a des points que vous ne comprenez pas. Il me fera plaisir de vous fournir des renseignements additionnels au sujet de cette étude. Vous pouvez emporter ce formulaire pour en discuter avec d'autres personnes avant de prendre une décision. Si vous acceptez de participer, je vous demanderais de signer ce formulaire et une copie vous sera remise.

Description de l'étude

Cette étude comparative a pour but d'évaluer la perception d'un membre de la famille quant aux interactions avec les infirmiers soignants aux soins intensifs.

Les priorités accordées aux interactions avec les soins infirmiers varient d'une population de patients à une autre et d'une famille à l'autre. Il est de même pour les interactions avec lesquelles elles sont les plus ou les moins satisfaites. Nos connaissances sont limitées à ce sujet. Très souvent nous prenons pour acquis que tous les membres de la famille ont les mêmes besoins

et accordent les mêmes priorités aux interactions avec les soins infirmiers. Nous comparerons les besoins et priorités des familles selon : 1) le diagnostic de leur proche (blessure traumatique versus autre maladie grave) ; 2) les données socio-démographiques telles que l'âge, le sexe, l'expérience d'une hospitalisation antérieure, le lien de parenté et la perception de la gravité de la maladie.

On a observé dans d'autres études différents niveaux de priorité en ce qui a trait aux interactions avec les infirmiers, selon les caractéristiques susmentionnées. C'est pour quoi, elles sont importantes à évaluer.

But de l'étude

Cette recherche a pour but d'évaluer et de comparer l'importance et la satisfaction que les membres de la famille accordent aux interactions avec les infirmiers à l'unité des soins intensifs.

L'importance accordée aux comportements des infirmiers et la satisfaction face aux interactions seront évaluées, au moyen d'un questionnaire, par un membre de la famille des patients gravement blessés ou gravement malades et hospitalisés aux soins intensifs.

Procédures

Si vous acceptez de participer à cette étude, je vous demanderai de remplir un questionnaire. Ce questionnaire mesurera votre degré de satisfaction et le niveau d'importance accordé aux interactions avec les infirmiers. Je vous poserai également quelques questions sur vos antécédents. Suite à l'admission de votre proche et durant une période de temps s'échelonnant entre trente-six et cent vingt heures après l'admission à l'unité aux soins intensifs nous demanderons à un membre de la famille à participer à l'étude. Le nombre de personnes visées par l'étude est de 64 mais il est possible que le nombre soit moindre afin que nous puissions compléter cette étude dans un délai raisonnable. Le questionnaire sera rempli dans une salle privée à l'unité des soins intensifs, à proximité de votre proche hospitalisé. La durée de réponse au questionnaire est d'environ quinze (15) à vingt (20) minutes, mais pourrait prendre plus de temps avec certaines personnes..

Risques et inconforts

Il n'y a aucun risque à remplir le questionnaire pour ce projet de recherche. Cependant, certaines personnes ne sont pas à l'aise à compléter des questionnaires. Vous devez vous rappeler que vous pouvez à tout moment faire une pause, recéduler le moment pour compléter le formulaire ou annuler votre participation. .

Bénéfices

Ne vous attendez pas à des bénéfices directs en participant à cette recherche. Toutefois, il y a des bénéfices indirects car l'information obtenue de cette étude peut aider de futurs patients et les membres de leur famille. Certains membres des familles qui ont participé aux études similaires ont trouvé que le fait de pouvoir rapporter ce qui leur était important et ce avec quoi ils étaient satisfaits ou insatisfaits, a été utile.

Confidentialité

Toutes les informations recueillies durant cette recherche seront strictement confidentielles. De plus, pour assurer la confidentialité, votre nom n'apparaîtra pas sur le questionnaire et un numéro identifiera ce dernier. Tous les questionnaires seront gardés sous clef dans le bureau de D^r. Sylvie Cossette, (superviseur de l'étudiante) à l'Université de Montréal dont l'accès est limité. L'étudiante en soins infirmiers et les superviseurs vont être les seules personnes à avoir accès aux documents. Les questionnaires seront détruits 5 ans après que l'étude ait pris fin.. Les résultats de cette étude seront publiés, mais votre nom n'apparaîtra pas dans les résultats combinés.. Votre nom et celui de votre proche n'apparaîtront nulle part. Si vous le désirez, les résultats de l'étude vous seront envoyés avant qu'elle soit publiée. Pour votre information, une copie du formulaire de consentement signé vous sera remise.

Si toutefois pour des raisons de détresse psychologique il est jugé approprié de vous référer à l'infirmier soignant, nous y procéderons en conséquence toujours avec votre permission et en dévoilant l'information nécessaire à l'infirmier qui prend soin de votre proche..

Pour vérifier les données de cette recherche, le comité d'éthique de la recherche du Centre Universitaire de santé McGill a un droit de regard sur la documentation. En signant ce formulaire de consentement, vous nous accordez la permission de donner à ce comité les informations concernant votre participation. Votre anonymat sera protégé et les informations que vous avez fournies resteront confidentielles en accord avec les règlements et les lois en vigueur.

Participation volontaire ou retrait de l'étude

Votre participation à cette recherche est totalement volontaire. Vous pouvez refuser de participer à l'étude ou vous pouvez vous retirer de l'étude en tout temps sans subir de préjudices. Si vous décidez de ne pas participer, ou si vous mettez un terme à votre participation, vous ou le membre de votre famille ne subira aucun préjudice relativement à vos soins ou à ceux de votre proche ou encore à une participation future à d'autres études. Les investigateurs peuvent mettre fin à votre participation si cela est jugé être dans votre propre intérêt.

Questions et personnes contacts

Si vous avez des questions concernant cette étude, vous devez contacter madame Lisa Connell, investigatrice du projet, au CUSM, poste _____, ou par téléavertisseur pendant les heures de bureau.

Si vous avez des questions concernant vos droits en tant que participant, vous devez contacter la porte-parole des bénéficiaires (ombudsman), au (_____)

Déclaration de consentement

Je déclare avoir pris connaissance de l'information dans ce formulaire et je consens librement à prendre part à cette étude. J'ai eu l'occasion de poser des questions et on a répondu à celles-ci de façon satisfaisante. J'ai eu assez de temps pour réfléchir à l'information susmentionnée et pour demander conseil, si tel fut mon désir. On me remettra une copie signée de ce formulaire. Je suis conscient que je ne renonce à aucun de mes droits légaux en signant ce formulaire de consentement.

Nom du participant

Caractère d'imprimerie

Date

Chercheur

Caractère d'imprimerie

Témoin

Caractère d'imprimerie

Le genre masculin est utilisé pour alléger le texte

Le 4 juin 2004

DOSSIER N^o: 626

Madame Sylvie Cossette
Faculté des sciences infirmières
Pavillon Marguerite d'Youville

Chère Madame,

Le comité d'éthique de la recherche des sciences de la santé (CÉRSS) a procédé à l'évaluation éthique du projet de recherche soumis par Madame Lisa Connelle, étudiante à la maîtrise, intitulé : «Comparing Satisfaction and Importance of Nursing Interactions with Family Members of Critically Injured and Critically Ill Patients in the Intensive Care Unit». Le Comité a approuvé le projet aux conditions qui se trouvent à la page suivante.



Je vous prie donc de me faire parvenir, dans les plus brefs délais, les renseignements demandés ou votre avis sur les modifications souhaitées ainsi qu'une copie des documents modifiés.

Veuillez agréer, chère Madame, l'expression de mes salutations distinguées.


Michel Bergeron
Président intérimaire
Comité d'éthique de la recherche
des sciences de la santé
3744, Jean-Brillant, bureau 450-30

Téléphone: 514 343-3320
Télécopieur : 514 343-3320
Adresse électronique : mberger@umontreal.ca

c.c. Madame Lisa Connelle

p. j.

COMMENTAIRES

1. Un formulaire de consentement en français doit être disponible pour les sujets francophones.
2. À l'annexe IV, le Comité demande de ne recueillir que le mois et l'année de naissance du sujet afin d'éviter les possibilités de recoupement.

Le 14 mai 2009

DOSSIER N^o: 626

Madame Sylvie Cossette
Professeure agrégée
Faculté des sciences infirmières
Pavillon M. d'Youville et L. Stewart
Bureau 5090

Madame Cossette,

Le Comité d'éthique de la recherche des Sciences de la Santé a bien reçu votre demande de renouvellement du certificat d'éthique pour le projet de recherche intitulé : « Comparing satisfaction and importance of nursing interactions with family members of critically injured and critically ill patients in the intensive care unit ». Ce projet avait reçu un certificat d'éthique pour la période allant du 30 juin 2008 au 29 juin 2009. Nous renouvelons ce certificat d'éthique pour la période du 14 mai 2009 au 13 mai 2010.

Il est à souligner que vous devez, sans délai, faire part au Comité d'éthique de la recherche des sciences de la santé de toute nouvelle information (changement dans les connaissances scientifiques...) ou observation (événement négatif...) et tout changement que vous désireriez faire au protocole expérimental, qui pourraient modifier le fondement éthique sur lequel repose la poursuite de votre projet de recherche.

Lorsque le projet sera terminé, vous devrez soumettre un bref rapport au Comité sur l'aspect éthique du déroulement des différentes étapes du protocole. Il s'agit essentiellement d'informer le comité s'il y a eu des incidents et de formuler au besoin des recommandations. Nous vous communiquerons le formulaire 18b à cet effet, formulaire que vous devez nous renvoyer complété au meilleur de vos connaissances.

Je demeure à votre entière disposition si vous avez besoin de renseignements additionnels.

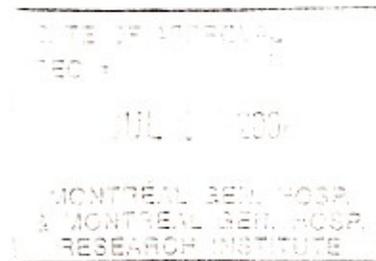
Veuillez agréer, Madame, l'expression de mes salutations distinguées.

Marie-France Daniel
Présidente
Comité d'éthique de la recherche des sciences de la santé
CEPSUM, 2100 Édouard-Montpetit, bureau 7211
Téléphone :
Télécopieur :
Courriel :



July 29, 2004

Ms. Lisa Connell



RE:GEN#04-017 entitled "A Comparative Assessment of Satisfaction with and Importance of Nursing."

Dear Ms. Connell:

The research proposal entitled above received Full Board review at the convened meeting of the MUHC-Montreal General Hospital Research Ethics Committee on June 29, 2004, and was entered accordingly into the minutes of the Research Ethics Board (REB) meeting.

We are writing to inform you that the above referenced study was found ethically acceptable for conduct at the McGill University Health Centre, and we hereby grant you full approval for the MUHC research protocol (dated 13 June 2004), and the revised English and French Consent Documents (dated 23 July 2004), via review by the Chair on July 29, 2004.

At the MUHC, sponsored research activities that require US federal assurance are conducted under Federal Wide Assurance (FWA) 00000840.

All research involving human subjects require review at a recurring interval and the current study approval is in effect until **June 2005**. It is the responsibility of the principal investigator to submit an Application for Continuing Review to the REB prior to the expiration of approval to comply with the regulation for continuing review of "at least once per year".

It is important to note that validation for the translated version of the consent document has been certified by an MUHC translator. Any further modification to the REB approved and certified consent document must be identified by a revised date in the document footer, and re-submitted for review prior to its use.

The Research Ethics Boards (REBs) of the McGill University Health Centre are registered REBs working under the published guidelines of the Tri-Council Policy Statement, in compliance with the "Plan d'action ministériel en éthique de la recherche et en intégrité scientifique" (MSSS, Qc) and the Food and Drugs Act (17 June, 2001); and acting in conformity with standards set forth in the (US) Code of Federal Regulations governing human subjects research, functions in a manner consistent with internationally accepted principles of good clinical practice.

We wish to advise you that this document completely satisfies the requirement for Research Ethics Board Attestation as stipulated by Health Canada.

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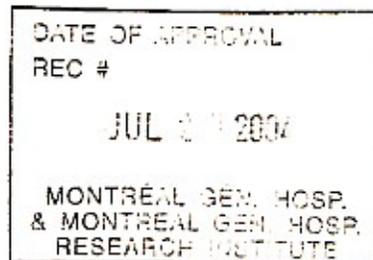
The project was assigned MUHC Study Number GEN#04-017 that is required as MUHC reference when communicating about the research. Should any revision to the study, or other unanticipated development occur prior to the next required review, you must advise the REB without delay. Regulation does not permit initiation of a proposed study modification prior to REB approval for the amendment.

Good luck with your study.

Sincerely,

Denis Cournoyer, M. D.
Chairman

GEN (Genetics/Population Research/Investigator Initiated Studies) Research Ethics Board
(formerly RESEARCH ETHICS COMMITTEE)
MUHC-Montreal General Hospital



Cc: GEN#04-017