

Spring 5-16-2015

The Relationships Between Patients' Perceptions of Nurse Caring Behaviors, Nurses' Perceptions of Nurse Caring Behaviors and Patient Satisfaction in the Emergency Department

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THE RELATIONSHIPS BETWEEN PATIENTS' PERCEPTIONS OF NURSE CARING BEHAVIORS, NURSES' PERCEPTIONS OF NURSE CARING BEHAVIORS AND PATIENT SATISFACTION IN THE EMERGENCY DEPARTMENT

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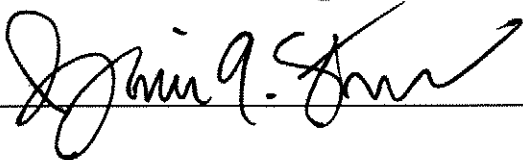
Approved by the Dissertation Committee:



Date 3/26/15



Date 3/26/15



Date 3/26/15

Submitted in Partial Fulfillment of the
Requirements for the Degree of Doctor of Philosophy in Nursing
Seton Hall University
2015

CARING AND PATIENT SATISFACTION

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ACKNOWLEDGEMENTS

This dissertation is the conclusion of many years of study at Seton Hall University and reflects the relationships with many people who have inspired me. I am most grateful to the members of my committee, Dr. Marie Foley, Dr. Judith Lucas, and Dr. Bonnie Sturm. Without their encouraging words, thoughtful criticism, and the time and attention given to me, none of this would have been possible. I especially thank Dr. Marie Foley who served as my chairperson and advisor throughout the process. I would like to thank my professors at Wagner College for their inspiration to pursue my doctoral education, especially Dr. Anne Marie Sortino and Dr. Margaret Governo. It was their enthusiasm and love for teaching that was so contagious. Dr. Bill O'Bannon was instrumental in assisting me with statistical design and analysis while spending his summer in the library with me. I also would like to thank the Emergency Department management team—Associate Executive Director Frank Morisano, Patient Care Unit Managers—Karyn Treval and Veronica Gucciardi, Nurse Educator Seida Velija, and the wonderful staff of the ED for being so helpful. The staff there is genuinely caring and willing to help; I am glad to have worked with each and every one of them. I would like to thank my friends in Staff Development for being supportive, generous, and loving friends without whom I could not have survived the process. I would like to thank my best friends for cheering me on and accepting nothing less than completion from me. And finally, thank you to my family, who also have lived the all-consuming life of a doctoral student.

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DEDICATION

***“Good, better, best,
never let it rest
until your good is better and
your better is your best!”***

(An adage from the sisters at Visitation Academy)

This dissertation is lovingly dedicated to my parents who made this all possible. They unselfishly gave me the exceptional opportunity to attend Visitation Academy where I developed my love for learning and living the words of the sisters of Visitation.

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ABSTRACT

Background: Approximately 100 million people seek care in Emergency Departments yearly, which can be overwhelming for many Emergency Department (ED) nurses. Thus, caring for these patients and meeting their needs is challenging for ED nurses. It is the patients' perceptions of the first caring encounters in the ED that can have a significant impact on patient satisfaction.

Objective: The purpose of the study was to examine the relationships between patients' perceptions of nurse caring behaviors, nurses' perceptions of nurse caring behaviors, and patient satisfaction in the ED.

Methods: This was a descriptive cross-sectional study that examined the relationships between patients' perceptions of nurse caring behaviors, nurses' perceptions of nurse caring behaviors, and patient satisfaction in the ED. Eighty-six nurse/patient dyads participated in this study. Nurse participants completed the Nurse's Background Information questionnaire and the Caring Behaviors Inventory-24 (CBI-24) (Wu, Larrabee, & Putnam, 2006). Patient participants completed the Patient Background Information questionnaire; the Caring Behaviors Inventory-24 (CBI-24) (Wu, Larrabee, & Putnam, 2006); and the Patient Satisfaction Instrument (PSI) (Hinshaw & Atwood, 1982).

Results: Data collected and analyzed indicated that there was a positive relationship between patients' perceptions of nurse caring behaviors and patient satisfaction in the Emergency Department. However, patient satisfaction was statistically significant and negatively associated ($\beta = -.41$; $p < .001$) for the categories of CBI dyad difference scores for the group of nurses who rated themselves more caring than patients rated the nurses. In addition, patient satisfaction scores were not statistically significant for nurse gender, marital status, ethnicity, professional education, employment status, or ED experience. Additionally, there were statistically significant differences ($p < .001$) between nurses' and patients' perceptions on the subscales of the CBI. These differences were noted on the assurance and connectedness subscales.

Discussion: This study indicated that patient satisfaction was significantly related to the patients' perceptions of nurse caring behaviors in the ED. The results of this study may help ED nurses meet the need and expectations of ED patients and deliver individualized patient care.

Key Words: nurse caring, caring behaviors, patient satisfaction, Jean Watson's theory of human caring

Chapter I

INTRODUCTION

Approximately 100 million people seek care in Emergency Departments (ED) yearly; of these, 15 million are uninsured (Trzeciak & Rivers, 2003). The large numbers of people seeking care in Emergency Departments can be overwhelming for many Emergency Departments and their staff. The ED is considered the “safety net” in healthcare institutions, a term that refers to healthcare provided to uninsured or vulnerable populations (Trzeciak & Rivers, 2003). Because many patients seek emergency care and are referred to EDs by their primary care physicians, Emergency Departments are recognized as the “front door” to many healthcare institutions (Welch, 2010). The ED, therefore, is extremely important to the health and well-being of the public.

Patients who arrive in the ED usually are in distress (Hostutler, Taft, & Snyder, 1999) and require immediate attention. Thus, caring for these patients and meeting their needs is challenging for Emergency Department nurses who practice a unique specialty requiring nurses to quickly treat patients, minimize pain and suffering, and protect life (McElroy, 2012). The Emergency Nurses Association (ENA) Code of Ethics guides nurses to “practice with compassion, provide respect for each individual and provide for human dignity” (ENA Code of Ethics, 2011). Wiman, Wikblad, and Idvall (2007) suggest that emergency nursing care should be provided within the context of a caring relationship. Caring is the essence of nursing (Bassett,

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2002; Khademian & Vizeshfar, 2007; Wiman & Wikblad, 2004; Wolf, Colahan, Costello, Warwick, Ambrose, & Giardino, 1998). It is what nurses do. It is the perception of this first caring encounter in the ED that can have a profound and long lasting impression on care received in the ED by the patient (Trout, Magnusson, & Hedges, 2000). Although patients want to be treated quickly and efficiently, they also want to be treated with compassion (McElroy, 2012).

Caring behaviors are a distinct feature of nursing. More importantly, it is the patients' perceptions of nurse caring behaviors that can have a significant impact on patient outcomes and patient satisfaction (Kipp, 2001). Patients who experience caring report a feeling of emotional and spiritual well-being, an enhanced sense of feeling better more quickly, and an increased feeling of safety, comfort, and support (Swanson, 1999; Turkel, 2001). Alternatively, consequences of non-caring experiences include feelings of anger, lack of control, despair, helplessness, vulnerability, and being alone (Turkel, 2001). In addition, when caring behaviors are not visible or when patient needs are not met, patient satisfaction may also be compromised (Wolf et al., 1998). Moreover, results from the patient satisfaction literature indicate that the patient is the best judge of nurses' caring behaviors (Clukey, Hayes, Merrill, & Curtis, 2009). Therefore, nurses must make nurse caring behaviors transparent to the patient.

Patient satisfaction has been recognized as a healthcare quality indicator (Yellen, Davis, & Ricard, 2002), one of the ten quality indicators of care provided in healthcare institutions (Healthcare Benchmarks, 1999) and as a nursing sensitive out-

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come (Laschinger & Almost, 2003). Patient satisfaction as a nursing-sensitive outcome provides healthcare institutions evidence of the influence of nursing care on the health of patients (Johnson & Maas, 1998). Strong evidence exists that nurse caring behaviors are positively correlated with patient satisfaction (Elder et al., 2004; Rafii, Hajinezhad, & Haghani, 2008; Wolf et al., 1998; Wolf, Miller, & Devine, 2003; Yeakel, Maljanian, Bohannon, & Coulombe, 2003). Research has focused on the relationship between nurse caring behaviors and patient satisfaction (Elder et al., 2004; Rafii, Hajinezhad, & Haghani, 2008; Wolf, Colahan, Costello, Warwick, Ambrose, & Giardino, 1998; Wolf, Miller, & Devine, 2003; Yeakel, Maljanian, Bohannon, & Coulombe, 2003) in various clinical settings.

Limited research, however, has been conducted on nurse caring behaviors and patient satisfaction in the Emergency Department. Because discrepancies often exist between nurses' perceptions of nurse caring behaviors and patients' perceptions of nurse caring behaviors (Berg & Danielson, 2007; Chang, Lin, Chang, & Lin, 2005; Hostutler, Taft, & Snyder, 1999; Poirier & Sossong, 2010; von Essen & Sjoden, 2003; Widmark-Petersen, von Essen, & Sjoden, 2000), examining nurse caring behaviors from the perspective of both the nurse and the patient concurrently should identify similarities and differences in nurses' and patients' perceptions of nurse caring behaviors. Because patient satisfaction with nurse caring behaviors is a factor in the patient's hospital experience (Wolf et al., 1998), further research is needed to determine to what extent caring is perceived by patients and nurses in the Emergency Depart-

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ment and whether there is a relationship between nurse and patient perceptions of caring and patient satisfaction.

Purpose of the Study

The purpose of the study was to examine the relationships between patients' perceptions of nurse caring behaviors, nurses' perceptions of nurse caring behaviors, and patient satisfaction in the Emergency Department.

Research Question

What are the relationships between patients' perceptions of nurse caring behaviors, nurses' perceptions of nurse caring behaviors, and patient satisfaction in the Emergency Department?

Research sub-questions

1. What are patients' perceptions of nurse caring behaviors in the Emergency Department?
2. What are nurses' perceptions of nurse caring behaviors in the Emergency Department?
3. What is the difference between nurses' perceptions of nurse caring behaviors and patients' perceptions of nurse caring behaviors in the Emergency Department?
4. What is the relationship between patients' perceptions of nurse caring behaviors and patient satisfaction in the Emergency Department?
5. What is the relationship between nurses' perceptions of nurse caring behaviors and patient satisfaction in the Emergency Department?

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Hypothesis: There is a positive relationship between patients' perceptions of nurse caring behaviors and patient satisfaction in the Emergency Department.

Definitions of the Variables

Patients' perceptions of nurse caring behaviors. Patients' perceptions of nurse caring behaviors are conceptually defined as patients' perceptions of nurses' "acts, conduct, and mannerisms that convey concern, safety, and attention to the patient" (Greenhalgh, Vanhanen, & Kygas, 1998, p.928) in the Emergency Department. Patients' perceptions of nurse caring behaviors will be operationally defined as the patient's score obtained on the Caring Behaviors Inventory-24 (CBI-24) (Wu, Larrabee, & Putnam, 2006).

Nurses' perceptions of nurse caring behaviors. Nurses' perceptions of nurse caring behaviors are nurses' perceptions of their "acts, conduct, and mannerisms that convey concern, safety, and attention to the patient" (Greenhalgh, Vanhanen, & Kygas, 1998, p.928) in the ED. Nurses' perceptions of nurse caring behaviors will be operationally defined as the nurse's score obtained on the Caring Behaviors Inventory-24 (CBI-24) (Wu, Larrabee, & Putnam, 2006).

Patient satisfaction. Patient satisfaction is conceptually defined as the patient's opinion of nursing care received from the nurse who was assigned to him or her in the Emergency Department (Hinshaw & Atwood, 1982). Patient satisfaction will be operationally defined as the patient's score obtained on the Patient Satisfaction Instrument (PSI) (Hinshaw & Atwood, 1982).

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Theoretical Rationale

The theory of human caring (Watson, 1979, 1985, 2008) provides the foundation to examine the relationships of nurse caring behaviors and patient satisfaction. Watson (1985) posits that caring is grounded in the “humanistic-altruistic value system” that values the diversity and the individuality of others (p.11). A person’s own philosophy and values affect how caring behaviors are delivered (Watson, 1985). Often, these values are unconscious and not apparent to the healthcare provider, but will influence the nurse-patient encounter.

Watson’s theory (1979, 1985, 2008) addresses caring as an interpersonal process that occurs between two people and involves both the provider of care and the receiver of the care. The process is mutual, inter-subjective, and reciprocal (Watson, 2006). Watson (2006) suggests the caring moment transcends the nurse-patient relationship for better or for worse depending on the nature of the relationship and the nature of the caring. Caring can be demonstrated and practiced effectively only through interpersonal relationships (Watson, 2006).

This interpersonal process not only affects the patient but the nurse as well. The nurse in the interpersonal process, or caring moment with a patient, may develop increasing powers of perception, increased emotional capacity, and an ability to live life more abundantly (Griffin, 1983). Caring is realized through Watson’s ten carative factors that have more recently evolved into ten caritas processes (Watson, 2008). According to Watson (2008), the caritas processes have a more spiritual dimension that intertwine love and caring. The carative factors, however, provide a practical

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framework to guide nursing actions, behaviors, and the interpersonal process between the nurse and the patient. The carative factors identify behaviors and actions associated with caring and serve as a basis for instrument development in the investigation of caring.

For Watson (2006), patients and nurses develop and sustain a caring relationship, perceive a gratification of needs, and are able to express both positive and negative feelings as a result of the interpersonal process. Watson's theory (1979, 1985, 2008), therefore, is appropriate to frame this proposed study given that the purpose is to examine the extent that caring is visible in the relationship between the nurse and the patient in the Emergency Department. This theory frames how nurses perceive their caring behaviors, how patients perceive nurse caring behaviors, and the relationship between patient satisfaction and nurse caring behaviors in the ED.

Delimitations (Inclusion/Exclusion Criteria)

Inclusion criteria. This study included adult patients who were between the ages of 18 and 69 years who arrived in the Emergency Department with a non-life threatening condition based on triage criteria. Upon arrival to the ED, a rapid assessment was done based on the across-the-room triage (ART) that included an assessment of the patient's general appearance, respiratory status, and skin circulation (Staten Island University Hospital, 2010). Based on the ART, patients were triaged according to a five-level triage scale called the Emergency Severity Index (ESI) (Gilboy, 2009). This scale allowed for triage of patients based on acuity and the number of resources that the patient would require. In addition, the level of triage was based

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on the possibility of a patient's clinical deterioration. For example, level 1 is considered Resuscitation (a patient's condition is life threatening); level 2 is considered Emergent (a patient's condition could deteriorate rapidly if treatment is delayed); level 3 is Urgent (a patient is stable but treatment should be provided to relieve stress and pain); level 4 is Semi-Urgent (the patient is at low risk for deterioration); and level 5 is Non-Urgent (the patient can safely wait and be seen in a lower acuity treatment area (Staten Island University Hospital, 2010).

Included patients had an Emergency Severity Index (ESI) of 3, 4, or 5 as rated by the triage nurse. Approximately 45% of patients who seek care on a daily basis in the ED are triaged with an ESI level of 4 or 5 (Staten Island University Hospital, 2013). Patients who were triaged level 3 were considered Urgent (the patient is stable but treatment should be provided as soon as possible). Examples included abdominal pain, mild congestive heart failure, renal colic, fever of 102–105 degrees (Staten Island University Hospital, 2010). Patients triaged level 4 were considered Semi-Urgent (the patient is at low risk for deterioration). Examples included patients with mild nausea and vomiting, cough, congestion and a low grade temperature, sprains, trauma within the past week and worsening pain in an extremity, and simple fractures without neurovascular compromise (Staten Island University Hospital, 2010). Patients triaged level 5 were considered Non-Urgent (the patient safely can wait and be seen in a lower acuity treatment area). Examples included bumps and bruises, wound checks, abrasions and contusions, superficial lacerations, and suture removal (Staten Island University Hospital, 2010).

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Included patients were cared for by the same Emergency Department nurse from the time of arrival in the ED to discharge from the ED on the day of data collection. Patients were recruited prior to discharge from the ED. Patients were able to read, speak, and understand English.

Each day, approximately 200–300 patients seek care in the ED. Of these, approximately 80% are discharged each day. This should provide approximately 160–240 patients per day for recruiting. Of these, approximately 8% of patients are greater than the age of 70 and 4.6% of patients are less than 18 years of age (Staten Island University Hospital, 2013). This study also included all registered nurses who were working in the ED recruited at a staff meeting prior to delivering care to the study's patient participants. Each nurse participated in the study sample one time only.

Exclusion criteria. Excluded patients were those who were greater than the age of 70; who were being admitted to the hospital; who had an Emergency Severity Index (ESI) of 1 through 2 as rated by the triage nurse; and who left the Emergency Department without receiving a professional assessment. Given that elderly people may tire more easily and experience sensory changes such that require large type print and non-glare-type paper, patients greater than the age of 70 were excluded (Wolf, Zuzelo, Costello, Cattilico, Cooper, Crothers, & Karbach, 2004).

Significance of the Study

Watson (2008) suggests that for nursing to survive and sustain itself as a profession, it must make caring behaviors transparent to all patients and their families because caring is the essence of nursing (Bassett, 2002; Khademian & Vizesfar,

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2007; Wiman & Wikblad, 2004; Wolf et al., 1998). With the increased use of technological and pharmacological interventions, nurse caring behaviors may be muted or invisible to patients and their families (Felgen, 2003; Meyer, Cecka, & Turkovich, 2006; Turkel, 2001). Caring can significantly impact both the patient and the nurse. The bilateral and reciprocal effects of nurse caring behaviors have been studied and include an observed increased healing ability for patients and an increased sense of personal and professional satisfaction for nurses (Khademian & Vizehfar, 2007). Alternatively, consequences of non-caring interactions may result in nurses feeling robot-like, worn down, and depressed (Swanson, 1999). Additionally, the literature provides evidence that nurses develop an increased consciousness about their own perceptions of caring behaviors that further assists nurses to develop caring behaviors that may positively impact their practice (Greenhalgh et al., 1998). Nurses need to identify their own perceptions of caring so that they can evaluate their nursing practice and provide individualized, improved nursing care that can enhance patient outcomes with nurse caring behaviors.

Today, nurses' caring roles are intensifying due to the changing healthcare climate and decreased supportive services (Clukey, Hayes, Merrill, & Curtis, 2009). When nurse caring behaviors are obvious to patients in the Emergency Department, they feel comfortable with and confident in the nurses caring for them (Berg & Danielson, 2007; Henderson, Eps, Pearson, James, Henderson, & Osborne, 2007; Palese et al., 2011). Patients perceive this encounter as a positive experience and report feeling satisfied (Swanson, 1999; Turkel 2001). Nurse caring behaviors influence patient

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satisfaction because nurses spend more time with patients than any other healthcare provider in the Emergency Department (Kipp, 2001). Therefore, nursing has a responsibility to ensure that nurse caring behaviors remain a distinct feature of nurses working in the Emergency Department and that these caring behaviors are clear, consistent, and continuous (Felgen, 2003).

Managed care organizations use satisfaction data to negotiate contracts and choose providers of care affecting funding and reimbursement rates to Emergency Departments and the institutions they represent (Kipp, 2001). In addition, the onset of a looming nursing shortage, increasing dissatisfaction with the healthcare system, a changing healthcare system enacted by the federal government, and reports of poor patient outcomes (Watson, 2009) compels the profession to assess and measure nurse caring and satisfaction in the Emergency Department. Furthermore, patients who report feeling cared for or about, report higher levels of patient satisfaction (Liu et al., 2010; Trout, Magnusson & Hedges, 2000). When satisfied patients leave the ED they are likely to return, show their thankfulness to staff, and refer their friends and family (Sun, Adams, Orav, Rucker, Brennan, & Burstin, 2000; Trout et al., 2000; Welch, 2010). This in turn enhances staff satisfaction, increases job satisfaction and generates a positive work environment (Trout et al., 2000). However, current nursing research findings suggest discrepancies exist in patients' perceptions of nurse caring behaviors compared to nurses' perceptions of nurse caring behaviors (Hayes, & Tyler-Ball, 2007; Kihlgren, Nilson, & Sorlie, 2005; Wiman & Wikblad, 2004). Therefore, examining the relationships between patients' perceptions of nurse caring behaviors and

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nurses' perceptions of nurse caring behaviors and patient satisfaction in the Emergency Department has the potential to improve patient care in the ED that may ultimately impact future patient outcomes and nursing practice.

Chapter II

REVIEW OF THE LITERATURE

Introduction

This review of the literature will provide an appraisal of the current literature about the theory of human caring (Watson, 1979, 1985, 2008) followed by a discussion of the major study variables that include patients' perceptions of nurse caring behaviors, nurses' perceptions of nurse caring behaviors, and patient satisfaction with nurse caring behaviors. The review is limited to empirical and theoretical literature of nurse caring behaviors research related to the relationship between nurse caring behaviors and patient satisfaction. Finally, this chapter will conclude with a summary of the literature related to caring and its relationship to patient satisfaction.

Search Strategies

The search strategies for nurse caring behaviors and satisfaction included the Cumulative Index to Nursing and Health Related Literature (CINAHL), Medline, Academic Search Premier, Proquest and Federated Search of Multiple Databases (150+) databases. The search was limited to English language, peer reviewed documents and published between 1979 and 2012. Key words used were nurse caring, caring behaviors, patient satisfaction and Jean Watson's theory of human caring. This resulted in 129 studies. These were evaluated for appropriateness using the following criteria: the research included nurses' perceptions of nurse caring/caring behaviors (6); patients' perceptions of nurse caring/caring behaviors (6); both nurses' and patients' percep-

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tions of nurse caring/caring behaviors (6); and patient satisfaction (6) in varying clinical settings and the ED. Of these, only six were conducted in the ED. Then, both manual and internet searches of cited references in selected articles yielded 30 additional references of which many were theory related and instrument development.

The Theory of Human Caring

Caring as a theory, much like the nursing profession, has evolved since its historical beginnings. Nursing traces its formal caring roots back to the development of organized religious groups and the discovery of scientific medicine through the development of the profession of nursing (Trafecanty, 2006). As the nursing profession evolved, it struggled to identify what caring is and how it defines nursing (Trafecanty, 2006). Nightingale (1860) suggested that “the elements of what constitutes good nursing are as little understood for the well as for the sick” (p. 9). Confusion in defining caring was seen in the nursing literature as late as the 1950s, only to be explicated later as a theory and as a building block of nursing (Swanson, 1999).

Multiple theories of caring exist, including the theory of culture care (Leininger, 1985); the theory on caring (Roach, 2002); the theory of nursing as caring (Boykin & Schoenhofer, 1993); and the theory of human caring (Watson, 1979, 1985, 2008). However, Watson’s theory of human caring is the most inclusive and widely used in healthcare settings because the carative factors comprehensively explicate the behaviors necessary in the caring relationship between the nurse and the patient. Watson’s theory (1979, 1985, 2008) focuses on the relationship between the

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person caring and the person cared for. Some of the underlying assumptions of Watson's theory include:

- Caring can be demonstrated and practiced effectively only through interpersonal relationships.
- Human caring and nursing have existed in every society where there has always been someone who has cared for another person (Watson, 1985).
- The expression of caring can be “the word that is spoken, or the eye that sees leading to action; the gaze, the word, the gesture framed in a voice and intonation. It is in the expression of what is said; how it is said can be welcoming, receiving or affirming” (Watson, 2003, p. 200).
- This interpersonal process not only affects the patient but the nurse as well.

Thus, the nurse in the interpersonal process or caring moment with a patient may develop increasing powers of perception, increased emotional capacity, and an ability to live life more abundantly (Griffin, 1983). Watson also posits that there is a discrepancy between theory and practice based on institutional demands that do not allow nurses the time needed to provide care based on the human caring relationship (Watson, 2006).

Caring is realized through Watson's ten carative factors, which provide a framework to guide nursing actions, behaviors, and the interpersonal process between the nurse and the patient.

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Jean Watson's ten carative factors are:

1. The formation of a humanistic-altruistic system of values.
2. The instillation of faith-hope.
3. The cultivation of sensitivity to one's self and to others.
4. The development of a helping-trust relationship.
5. The promotion and acceptance of the expression of positive and negative feelings.
6. The systematic use of the scientific problem-solving method for decision making.
7. The promotion of interpersonal teaching-learning.
8. The provision for a supportive, protective, and/or corrective mental, physical, sociocultural, and spiritual environment.
9. Assistance with the gratification of human needs.
10. The allowance for existential-phenomenological forces (Watson, 1985, pp. 9–10).

These carative factors have further evolved into ten caritas processes that suggest a more meaningful concept for nursing (Watson, 2008). This evolution also suggests that the nurse is evolving in caring to a Caritas nurse who operates from a more human-to-human connection (Watson, 2008). A Caritas nurse “acknowledges caring and love” as essential to the nurse patient interaction (Persky, Nelson, & Bent, 2008). The caritas factors provide a new language for nursing, a language that is non-medical and non-clinical (Watson, 2008). While neither carative nor caritas factors

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have been studied in EDs, the carative factors theoretically appear more in line with the type of nurse/patient interactions that occur in the ED because the carative factors describe the actions and behaviors as well as sensitivities demonstrated within the caring relationship.

Watson's theory (1979, 1985, 2008) blends science and human caring to develop a language and formula to incorporate into nursing practice. It is within the practice of nursing that the interpersonal caring relationship is most essential. The interpersonal relationship is guided by nursing actions, behaviors and consequences associated with the ten carative factors. Watson's theory has been the conceptual framework for many studies on nurse caring behaviors (Marini, 1999; Palese et al., 2011; Poirier & Sossong, 2010; Rafii, Hajinezhad, & Haghani, 2008; Wolf, Colahan, Costello, Warwick, Ambrose, & Giardino, 1998; Wolf, Miller, & Devine, 2003). Empirical evidence exists to support Watson's theory that a caring relationship exists between the nurse and the patient, and that there is a relationship between nurse caring behaviors and patient satisfaction in all clinical settings (Larrabee et al., 2004; Palese et al., 2011; Rafii, Hajinezhad, & Haghani, 2008; Wolf, Colahan, Costello, Warwick, Ambrose, & Giardino, 1998; Wolf, Miller, & Devine, 2003; Yeakel, Maljanian, Bohannon, & Coulombe, 2003) and in the ED (Elder et al., 2004).

Wolf et al. (1998) applied an ex post facto design to examine patients' reports of nurse caring and patient satisfaction. A convenience sample of 335 medical and surgical patients who had been hospitalized over a period of one year, responded to mailed instruments: the Caring Behaviors Inventory-42 (CBI-42) (Wolf et al., 1994)

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and the Patient Satisfaction Instrument (PSI) (Hinshaw & Atwood, 1982). Results indicated there was a positive significant correlation between patient reports of nurse caring and patient satisfaction ($r=.78, p<.001$). Respectful deference to other was the most highly rated subscale of the Caring Behavior Inventory-42 (CBI-42) with an alpha coefficient of 0.94. Some of the behaviors and attitudes associated with this subscale include treating the patient as an individual, attentively listening to the patient, allowing the patient to express feelings about their disease. These attitudes and behaviors help patients to form a trusting relationship with the nurse that further can be ascribed to carative factor four. Carative factor four “promotes the development of a helping-trust relationship” (Watson, 1985 p.9-10).

Similar research reports from Wolf, Miller and Devine (2003) indicate that nurse caring had a moderately strong correlation with patient satisfaction in patients undergoing invasive cardiac procedures ($r= .53, p=.01$). Rafii, Hajinezhad and Haghani (2008) reported similar results in patients in Iran ($r=.72; p=.00$). However, in both studies “assurance of human presence” subscale was rated most important by patients. Wolf, Miller and Devine (2003) documented a mean of 68.65 on a scale ranging from 49–72 and Rafii, Hajinezhad and Haghani (2008) reported a mean of 52.24 on a scale ranging from 12–72. Alpha coefficients of 0.89 (Wolf, Miller, & Devine, 2003) and 0.94 (Rafii, Hajinezhad, & Haghani, 2008) showed high internal consistency for both studies. Some of the behaviors and attitudes associated with assurance of human presence include: talking with the patient, showing concern for the patient, responding quickly to the patient, and giving medications and treatments on

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time. These behaviors are reflective of carative factors four and eight. Carative factor four promotes the development of a helping-trust relationship; while carative factor eight suggests that nurses provide for a “supportive, protective, and/or corrective mental, physical, sociocultural, and spiritual environment” (Watson, 1985 pp.9–10).

Poirier and Sossong (2010) surveyed 19 oncology patients and 15 nurses using the Caring Behaviors Inventory-Elders (CBI-E) (Wolf et al., 2004, 2006). The CBI-E (Wolf et al., 2004, 2006), developed for use in an elderly population (ages 70–94), and printed on yellow paper with a 14-point font size, had a reported internal consistency reliability coefficient of 0.94. In this study, the nurses rated their nurse caring behaviors significantly higher than the patient rated nurse caring behaviors ($U = -2.22$, $p = .026$). Although this discrepancy exists between nurses’ perceptions of nurse caring and patients’ perceptions of nurse caring, nurse caring behaviors were perceptible to both patients and nurses alike. Items such as helping you feel comfortable, being pleasant with you, and watching for your safety suggests that these behaviors are consistent with Watson’s theory and that an interpersonal relationship had occurred (Poirier and Sossong, 2010).

In a very large multicenter study in six European nations (Cyprus, Czech Republic, Greece, Finland, Hungary, and Italy), Palese et al. (2011) examined the correlation between nurse caring behaviors and patient satisfaction in surgical patients using the Caring Behaviors Inventory-24 (CBI-24) (Wu, Larabee, & Putnam, 2006) and the Patient Satisfaction Scale (PSS) developed by Kim, in 1991, as discussed by Palese et al. (2011). Wu, Larabee, and Putnam (2006) adapted and validated a short-

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ened version of the CBI-42. Following a factor analysis the CBI-24 accounted for 97% of the variance of the original 42 items in the CBI-42 with an internal consistency Cronbach's alpha of 0.96 (Wu et al., 2006). Caring dimensions were condensed to a four factor structure. The subscale knowledge and skills was ranked highest among patients. Behaviors associated with this subscale suggest that the nurse is competent in giving injections and IVs, demonstrates professional knowledge and skill, and is confident with the patient. These behaviors are consistent with carative factor six, which indicates that the nurse applies "the systematic use of a scientific problem-solving method for decision making" (Watson, 1985, pp.9–10) as well as a humanistic approach in the nurse patient relationship. With a scientific method, the nursing profession can develop new and improved interventions to care for patients based on scientific evidence (Watson, 1985).

According to Watson (2009), the current healthcare environment has evolved into a business-like model; human caring and the healing relationship have been lost. If human caring practices and relationships are to survive in this current business modeled healthcare environment, nursing interventions incorporating a theory guided caring approach are needed. Anecdotal evidence for the use of Watson's theory (1979, 1985, 2008) also has been noted in the clinical (Ryan, 2005); administrative (Bent, Burke, Eckman, Hottman, McCabe, & Williams, 2005); and educational (Rosenberg, 2006) practice reports of the nursing profession.

Many hospitals ascribe to Watson's theory yet practice does not always reflect this caring theory (Bent, Burke, Eckman, Hottman, McCabe, & Williams, 2005). In

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published reports, nursing leaders translated Watson's theory into practice (Bent, Burke, Eckman, Hottman, McCabe, & Williams, 2005; Rosenberg, 2006; Ryan, 2005). For example, at the Veterans' Administration Eastern Colorado Health Care System, Nightingale Units were developed. Nurses were encouraged and inspired by the prospect of changing their nursing practice from a task orientation one to one, which was relational and caring. Because this approach was initiated by staff and supported by management, the theory of human caring practice model has been sustained (Bent et al., 2005).

Similarly, a multihospital system integrated the theory of human caring (Watson, 1979, 1985, 2008) into practice (Ryan, 2005). Caring advocates were chosen and responsible for sharing Watson's theory with their colleagues and designing interventions for integrating the theory. Some of the implementation methods included bulletin boards dedicated to literature about Watson's theory with lists of the carative factors and inspirational quotes along with journals to share caring stories. As a result of these methods, caring practices were shared at nursing grand rounds referencing the clinical application of the carative factors and job descriptions were revised to incorporate behaviors associated with the carative factors.

Additionally, a new language for computerized clinical documentation has been implemented using Watson's theory (1979, 1985, 2008) (Rosenberg, 2006). Lists of nursing interventions based on the carative factors have been developed so that nurses who practice guided by the theory have a language to communicate appropriately using caring theory terminology. In a quality report, Rosenberg (2006)

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described that 85% of charts had at least one carative factor documented and 35% had the new label selected after implementation of the computerized clinical documentation system.

The current literature supports Watson's theory (1979, 1985, 2008), which describes the caring relationship between the nurse and the patient. Empirical studies affirm the positive relationship between nurse caring behaviors and patient satisfaction in various clinical settings (Larrabee et al., 2004; Palese et al., 2011; Rafii, Hajinezhad, & Haghani, 2008; Wolf, Colahan, Costello, Warwick, Ambrose, & Giardino, 1998; Wolf, Miller, & Devine, 2003; Yeakel, Maljanian, Bohannon, & Coulombe, 2003) and the ED (Elder et al., 2004). There also is anecdotal evidence (Bent et al., 2005; Rosenberg, 2006; Ryan, 2005) to demonstrate the modern and practical application of this theory to clinical practice, therefore; it is an excellent theory to guide this study.

Instruments to Study Caring

Many of the instruments developed to study nurse caring behaviors have been derived from Watson's theory (1979, 1985, 2008). The instruments most closely aligned with Watson's theory include the Caring Behaviors Inventory (CBI) developed by Wolf et al., (1994). Watson reminds us that an instrument may provide objective evidence of caring behaviors; however, these measurements are not the phenomenon itself, but an indicator of the phenomenon (Watson, 2009).

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Nurse Caring Behaviors

Caring as a central concept in nursing has been studied for many decades, yet the definition of caring remains elusive and nebulous (Paley, 2001). One of the ways to study caring is to examine nurse caring behaviors, which are defined as “acts, conduct, and mannerisms enacted by professional nurses that convey concern, safety and attention to the patient” (Greenhalgh, Vanhanen, & Kyngas, 1998, p.928).

There has been a lack of consensus among nurse researchers as to which method is best suited to study caring. Therefore caring has been studied both quantitatively and qualitatively. Nurse caring behaviors will be discussed from both the nurses’ perceptions of nurse caring behaviors and patients’ perceptions of nurse caring behaviors in medical surgical patient care units and the ED.

Nurse caring behaviors have been identified by both nurses and patients in Medical-Surgical patient care units, Critical Care units, the Emergency Department and Geriatric living facilities. Exploring the similarities and differences in nurse caring behaviors as identified by these groups and in different settings can illustrate the importance of the effectiveness of nurse caring behaviors in clinical nursing practice.

Nurses’ perceptions of nurse caring behaviors. Qualitative and quantitative methodologies employed by nurse researchers have examined descriptors of nurse caring behaviors as perceived by nurses in Medical-Surgical patient care units and the ED. Studies using qualitative methods included observational (Wiman & Wikblad, 2004) and interviews (Kihlgren, Nilson, & Sorlie, 2005; Pearcey 2010; Sumner,

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2008). The purpose of these studies was to examine nurse caring and nurse caring behaviors from the nurses' perspective.

Patient care units. Pearcey (2010) and Sumner (2008) sought to determine nurses' perceptions of nursing care and caring in nursing. Pearcey (2010) conducted semi-structured interviews with 25 nurses in five hospitals. Nurses were unable to clearly define nurse caring behaviors but were able to give examples of caring behaviors. Examples of caring behaviors included being able to hold a patient's hand, touch their arm, sit and talk with patients (Pearcey, 2010). Caring had been described as the "things that we are not supposed to do anymore" (Pearcey, 2010, p.53). Barriers were also identified with many nurses stating they were not as caring as they could have been because of lack of time. Sumner (2008) audiotaped interviews with ten nurses to examine the nurse patient relationship in the acute care setting. Emerging themes included: being normal (being a person outside of nursing); little things; hardness of nursing (struggling to give good care); the relationship as human to human connection; practice organization (time management issues); malcontent (frustration with nursing); and power and control (p. 97).

Nurses in both studies (Pearcey, 2010; Sumner, 2008) used the same term "it's the little things" that are important (Sumner, 2008, p. 53). Nurses often stated that the hectic pace on the nursing units made them feel that they were not as caring as they would like to be (Sumner, 2008; Pearcey, 2010).

Emergency department. Two qualitative studies were found that identified the phenomenon of caring and categorized caring behaviors observed in the ED.

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Wiman and Wikblad (2004) examined actions and behaviors from videotaped vignettes of nurses taking care of five injured ED patients. Five caring episodes with 10 nurses were identified and analyzed by content analysis. Aspects of caring were identified as: “being open and perceptive to others” (nurses were able to communicate easily with patients during procedures such as cleaning wounds); “being genuinely concerned for the patient (the nurse stopped cleaning the wounds and listened to the patient); “being morally responsible” (covering a naked patient with blankets); and “being truly present” (pulling a chair to sit at the patient’s bedside) (p. 426). Aspects of uncaring behaviors identified in the emergency department included not showing interest, insensitivity, coldness, and inhumanity.

Similarly, Kihlgren, Nilson and Sorlie (2005) asked Emergency Department nurses (n=10) to describe a situation where they felt that an elderly patient received good care. Unable to identify any situations where elderly patients received good care, they were then asked to describe what good care for an elderly patient would be. Nurses’ themes included being knowledgeable about various illnesses, understanding the older patient’s situation, and being responsible for good nursing care. The nurses were able to identify two themes that prevented them from providing good care, prioritizing medical care and routines. Many of these nurses recognized the need for better care for their elderly patients, yet felt they were not able to deliver that type of care in the ED. For example, nurses stated there was little time for anything, except medical care such as starting an intravenous or drawing blood. However, the ED nurses explained it is the “little extra” (holding a patient’s hand, speaking to them and

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making eye contact) that makes a difference in the care of the elderly in the ED (Kihlgren, Nilson, & Sorlie, 2005, p. 604).

All of the four qualitative studies reviewed of nurses' perceptions of caring behaviors (Kihlgren, Nilson, & Sorlie, 2005; Pearcey, 2010; Sumner, 2008; Wiman & Wikblad, 2004) identified a common theme. This included the nurse-patient relationship or the humanness of the nurse-patient interaction as core to caring. Most nurses expressed a satisfaction in being able to make a human connection although this was not always possible in a busy patient care unit. The nurse-patient relationship and the satisfaction derived from making this connection are the basic assumptions derived from the science of caring (Watson, 1985).

Because most qualitative studies' goals are to explore phenomena/concepts in depth, they have small sample sizes (Kihlgren, Nilson, & Sorlie, 2005; Pearcey, 2010; Sumner, 2008; Wiman & Wikblad, 2004) and their findings are not expected to be transferable to a larger population. However, research findings may be considered credible in that nurses working in similar areas can identify many of the same themes. The validity of the themes was supported by the quantity and quality of the quotations used in the empirical literature. A weakness noted in sample selection in two studies (Kihlgren, Nilson, & Sorlie, 2005; Sumner, 2008) is the use of convenience sampling (nurses who volunteered for the study). Although using convenience samples may provide a beginning point, they may not be the most valuable or data rich sources for a qualitative study (Polit & Beck, 2012). Another weakness noted in the study by

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Wiman and Wikblad (2004), was agreement among researchers during content/thematic analysis was not documented.

Nurses' perceptions of nurse caring behaviors have also been studied using quantitative designs in Medical-Surgical patient care units and the ED. This is described below.

Patient care units. Critical Care nurse caring behaviors were investigated using a descriptive comparative design in three Critical Care units in a large teaching hospital in Ireland (O'Connell & Landers, 2008). Researchers used a convenience sample of 33 nurses from all the Critical Care units using the Caring Behaviors Assessment tool (CBA) developed by Cronin and Harrison, in 1988, to measure nurse caring behaviors. The Caring Behaviors Assessment tool is a 62-item instrument with a five-point Likert scale theoretically consistent with Watson's theory. The reported Cronbach's alpha for the Caring Behaviors Assessment was 0.66 to 0.90 on the seven subscales: human needs assistance (.89); humanism/faith-hope/sensitivity (.84); supportive/protective/corrective environment (.79); teaching/learning (.90); expression of positive/negative feelings (.67); existential/phenomenological/spiritual forces (.66); and helping/trust (.76). Results indicated that nurses rated the most caring behavior as the nurse knows what she is doing (Mdn score=5) on a scale of 1–5 (1=little importance to 5=much importance) for 33 nurses. Treating the patient as an individual and treat with respect were equally rated by nurses (Mdn score=5) within the 10 most important caring behaviors. Although median scores were the same, the total number of scores was then rank ordered. These behaviors are reflective of the subscale hu-

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manism/faith-hope/sensitivity, consistent with Watson's carative factor number two, which proposes that nurses provide individualized care for their patients and are able to make the difference in their care (Watson, 1985). Talking about past life experiences (Mdn=2), talking about life outside the hospital (Mdn=4) and visiting the patient when the patient leaves the unit (Mdn=4) were rated to as least important caring behaviors by the nurses, because the priority of care had been to stabilize the patient in the Intensive Care unit (O'Connell & Landers, 2008).

Emergency department. In the Emergency Department, Walsh and Dolan (1999) used a descriptive correlational design to study the differences between Emergency Department nurses' and Medical-Surgical nurses' perceptions of caring. The researchers delivered 300 questionnaires using the 25-item Caring Dimensions Inventory developed by Watson and Lea, in 1997, which is theoretically consistent with Watson's theory (Watson, 1979, 1985, 2008). It includes four general categories of care (the nurse-patient relationship, nursing interventions, nursing attitudes, and communication) with a reported Cronbach alpha of 0.91 for the 25 items. A Mokken Scale analysis measured the participant's preference for the physical and technical tasks of caring behaviors versus the psychosocial aspects of caring behaviors. The sample included 156 nurse participants (52% response rate). Results suggested forming a relationship with patients and spending time sitting with a patient was less important to emergency department nurses than to Medical-Surgical nurses. For example, Medical-Surgical nurses ranked getting to know the patient as a person (M=4.5) higher than Emergency Department nurses (M=4.2). Of the 25 items, this was the on-

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ly item to reach statistical significance ($\chi^2=21.41$; $p<.001$; $df=2$) and the main difference noted between Emergency Department nurses and Medical-Surgical nurses.

Based on Mokken subscale analysis, there were no differences in the Medical-Surgical nurses ($M=55.1$) and Emergency Department nurses ($M=55.4$) preferences for the physical /technical tasks of caring behaviors compared to the psychosocial aspects of caring behaviors.

Regardless of the method used to study nurses' perceptions of nurse caring behaviors, there remain discrepancies in nurses' perceptions. Many nurses were not able to clearly define nurse caring and caring behaviors (Pearcey, 2010; Sumner, 2008) yet, some nurses recognized that there were behaviors suggestive of caring such as "make some eye contact, smile a little, or even offering some coffee" (Kihlgren, Nilsson, & Sorlie, 2005, p. 604). Nurses' perceptions of nurse caring behaviors are as diverse as the areas in which care is delivered. For example, nurses in the Emergency Department and Critical Care (Kilgren, Nilsson, & Sorlie, 2005; O'Connell & Landers, 2008; Walsh & Dolan, 1999; Wiman & Wikblad, 2004) suggested that knows what you are doing and being knowledgeable are important nurse caring behaviors. Nurses working on Medical-Surgical units recognized that getting to know the patient as a person, being able to sit and listen, and holding a patient's hand are important nurse caring behaviors (Pearcey, 2010; Sumner, 2008; Walsh & Dolan, 1999). However, many nurses agree that there is little time to do the extras (Kilgren, Nilsson, & Sorlie, 2005; Pearcey, 2010; Sumner, 2008). A weakness of the quantitative studies include use of small and convenient samples (O'Connell &

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Landers, 2008; Walsh & Dolan, 1999), a homogeneous sample (Walsh & Dolan, 1999), and the use of adapted tools compromising validity, reliability, and generalizability to larger nursing populations (O'Connell & Landers, 2008).

Patient's perceptions of nurse caring behaviors. Patients perceive nurses as either being caring or non-caring when providing patient care. Qualitative (Schmidt, 2003; Turkel, 2001; Wiman et al., 2007), quantitative (Hayes & Tyler-Ball, 2007; Marini, 1999), and mixed methods (Henderson et al., 2007) have been used to examine patients' perceptions of nurse caring behaviors in Medical-Surgical patient care units and in the ED.

Patient care units. Marini (1999) examined nurse caring behaviors that were important to older adults living in a residential setting (assisted living and long term care facilities). In this descriptive study, a convenience sample of 21 patients (age 74-97) completed the 63-item Caring Behaviors Assessment (CBA) questionnaire. Caring behaviors were rated on a five-point Likert scale (1=little importance to 5=much importance). Reliability of this tool was reported to have Cronbach's alphas ranging from 0.66 to 0.90 on each of the seven subscales: human needs assistance (.89); humanism/faith-hope/sensitivity (.84); supportive/protective/corrective environment (.79); teaching/learning (.90); expression of positive/negative feelings (.67); existential/phenomenological/spiritual forces (.66); and helping/trust (.76). Mean scores ranged from 2.76 to 4.57. Older patients reported the most important nurse caring behaviors as the nurse knows what she is doing ($M=4.57$; $SD=.50$) and knows when to

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call the doctor ($M=4.52$; $SD=.67$). In addition, older patients reported nurses treated them with respect and as an individual ($M=4.47$; $SD=.67$), which was important.

Turkel (2001) and Schmidt (2003) used grounded theory to study the nurse-patient relationship and perceptions of nurse caring in a Medical-Surgical hospital setting. Turkel (2001) proposed three emerging themes from patient interviews ($n=10$): “being in the relationship, interpreting the nurses’ caring and feeling threatened by the new reality.” Schmidt (2003) found four themes emerged in her sample of 8 patients: seeing the individual patient, explaining, responding and watching over. Although the themes are different, there are similarities in their meanings. “Being in the relationship” suggests that the nurse and patient have formed a trusting relationship (Turkel, 2001), which Schmidt (2003) describes as “watching over” or “feeling safe or someone being there” (p. 395). An example of being in the relationship offered by Turkel (2001) was: “nurses coming back when they promised” (p.75). Turkel (2001) believes that once the physical needs of the patient have been met; the most important behavior to patients is the humanistic compassion interaction. Additionally, nurses acknowledged that caring takes place in that “special moment when the nurse and the patient are together” (Turkel, 2001, p.72), even if it is only for a moment, which Watson (1985) identifies as the “caring moment/caring occasion” (pp.59–60). In this moment, Watson (1985) explains that the nurse and patient feel a connection that transcends time and space. The second theme proposed by Turkel (2001), interpreting the caring, indicates that patients are able to distinguish a caring nurse from a non-caring nurse. Lastly, feeling threatened by the new reality implies that patients

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recognized that nurses were busy, but didn't blame them. Rather patients blamed the administrative demands placed on nurses.

Henderson et al. (2007) used a mixed-methods approach to examine patients' perceptions of the nurse-patient interaction in a Medical and a Surgical unit. A purposive sample (n=35) was obtained and twelve observation sessions each consisting of four hours was conducted over 24 hours/day, seven days/week for a period of four weeks. In addition, a five-question survey was administered to inpatients prior to being discharged. From the survey responses (n=31), on a scale of 0–5 (0= not sure to 5=excellent), patients equally rated courtesy (M=4.7), compassion and reassurance (M=4.7) as most important. Length of time to answer a call bell was rated the lowest (M=3.9). Three themes identified from the observations included: “getting to know you (being friendly); translating (informing, explaining & instructing); and expert compassion (going the extra mile)” (p. 149). Saying hello to patients each day, explaining hospital routines and medications were some of the behaviors supporting the themes. Expert compassion (“Going the extra mile”) was identified when nurses carried out actions that were not part of the treatment plan, such as taking a patient for a walk (p.150). Compassion also emerged as a common theme in the studies of Sumner (2008) and Pearcey (2010) when nurses in both studies used the term “it is the little things” that show compassion and caring for patients.

Emergency department. Hayes and Tyler-Ball (2007) used a descriptive design to examine trauma patients' perceptions of nurse caring in the Emergency Department. Seventy emergency room patients completed the Caring Behaviors Invento-

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ry-42 (CBI-42) (Wolf et al., 1994), a 42-item questionnaire containing four sub-scales: assurance, knowledge and skill, respectfulness, and connectedness. The reported Cronbach's alpha for this study was 0.985 for the entire questionnaire. Because many of the patients were unable to fill out the questionnaire using a paper or pencil, the researchers read the questions to the patients allowing patients to respond verbally to the questions. Generally, there was an overall positive perception of caring demonstrated by the nurses with an average rating of five based on a six-point Likert scale (1=never to 6=always) on all items. Acts of caring, such as giving instructions, teaching patients, spending time with them were some of the equally lower patient-rated caring behaviors (M=4), suggesting that these behaviors may not be a priority in an ED, or that trauma nursing care is the priority.

Wiman et al. (2007) conducted semi-structured interviews with 23 trauma patients in the Emergency Department to examine trauma patients' perceptions of their caring experience with the trauma team. These patients had sustained minor injuries that were not life threatening and were being discharged home. The themes that emerged from the patients' descriptions of caring behaviors were: "knowing how, communication, and involvement" (p. 717). Knowing how was a descriptor of a nurses' knowledge and the ability to complete certain activities. Communication had two descriptors related to emergency nursing care: formal (gathering information) and diverting (casual conversation). Nurses frequently used these forms of communication. Formal was used primarily during the assessment phase and diverting communication was free and easy. No matter which type of communication nurses used, patients felt

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comfortable and confident with their care. Involvement is the nurses' ability to attend to both the physical and psychological needs of the patient while monitoring the patient and family.

In summary, patients' perceptions of nurse caring behaviors remain as equally diverse as nurses' perceptions of nurse caring behaviors. Based on the reviewed literature (Hayes & Tyler-Ball, 2007; Henderson et al., 2007; Marini, 1999; Schmidt, 2003; Turkel, 2001; Wiman et al., 2007), patients' perceptions of nurse caring behaviors can be categorized into two distinct forms of caring behaviors: the nurses' competence/technical skills and the communication/relationship skills. Patients in the ED (Hayes & Tyler-Ball, 2007) and long-term care (Marini, 1999) rated the competence and technical skills of nurses as very important. Using patient interviews, Wiman et al. (2007) also reported knowing how as an important theme that is reflective of the competent/technical skills of the nurse.

Communication/relationship skills were highly rated in the studies by Turkel (2001), Schmidt (2003), Wiman et al. (2007) and Henderson et al. (2007). Communication/relationship skills in the ED have been described as free and easy (Wiman et al., 2007), explaining (Schmidt, 2003) and being in the relationship (Turkel, 2001). However, Hayes and Tyler-Ball (2007) report that communication/relationship skills such as giving instructions, teaching patients and spending time with them were some of the lower rated caring behaviors.

Some of the weaknesses noted include small sample sizes (Marini, 1999, n=21); a lengthy 63-item CBA used in an older adult population (Marini, 1999) doc-

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umented for use in the acute care setting (Marini, 1999); and observations that were brief (Henderson et al., 2007). Although the observations were brief, they provided insight into nursing care practices prevalent at that time. Observational technique may also alter the behavior of either the nurse or patient participant limiting the reliability of the data (Polit & Beck, 2012). Additionally, in the study by Hayes and Tyler-Ball (2007), many of these patients were admitted and interviewed one to six days after the trauma and were not discharged from the ED. Therefore, giving instructions and teaching patients may not have been visible in the ED.

Nurses' and patients' perceptions of nurse caring behaviors. Differences often exist between a nurses' perception of nurse caring behaviors and a patients' perceptions of nurse caring behaviors (Berg & Danielson, 2007; Chang, Lin, Chang, & Lin, 2005; Hostutler, Taft, & Snyder, 1999; Poirier & Sossong, 2010; Widmark-Petersen, von Essen, & Sjoden, 2000; von Essen & Sjoden, 2003). These differences have been reported in Medical-Surgical Patient Care Units and in the ED, yet have not been answered. Recognition of the differences are important to nursing, so that nurses can further investigate if these differences are present in their nursing care settings.

Patient care units. Chang, Lin, Chang, and Lin, (2005) , von Essen and Sjoden (2003) and Widmark-Petersen, von Essen, and Sjoden (2000) all demonstrated similarities and differences in nurse caring behaviors between patients and nurses using a descriptive comparative design with patients on oncology units. These researchers all used Larson's Caring Assessment Report Evaluation Q-sort (CARE Q) meth-

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odology that included administering 50 nurse caring behavior items on cards to patients and nursing staff. All the participants were asked to rank order nurse caring behaviors from the least important to the most important in varying step processes. The 50 nurse caring behaviors were categorized into six subscales: being accessible, explains and facilitates, comforts, anticipates, trusting relationship, and monitors and follows through.

Widmark-Petersson et al. (2000) matched 21 Swedish nurse/patient dyads in their study design using a free choice format of the CARE Q. Patients scored nursing behaviors on a scale of 1-7 (1=low importance to 7= high importance). They were free to assign any number on the scale to the caring behavior. Patients and nurses differed in their ranking of the CARE Q subscales. Patients ranked explains and facilitates (M=6.37); anticipates (M=6.32); and monitors and follows through (M=6.30) as the three most important subscales. The subscale explains and facilitates includes behaviors, such as teaching the patient, providing adequate and honest information to the patient. The difference between the nurses and patients ratings of this subscale explains and facilitates was statistically significant ($t=2.11$; $df=20$; $p<0.05$). Nurses rated anticipates (M=6.42); comforts (M=6.19); monitors and follows through (M=6.19) as the three most important subscales (Widmark-Petersson et al., 2000).

Chang et al. (2005) matched 50 Chinese nurse/patient dyads from three oncology units in Taiwan. A translation and back translation approach was done by seven experts. The reported content validity of the CARE Q was 95.3% but it also had a low internal consistency reliability rating. Caring behaviors were scored on a scale of 1-7

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(1=least important to 7= most important). The highest rated subscales by patients included being accessible ($M=4.59$; $SD= 0.46$), monitors and follows through ($M=4.46$; $SD= 0.42$) and anticipates ($M=3.92$; $SD=0.42$). Caring behaviors associated with the subscale being accessible included: giving the patient's treatment and medications on time, checking on the patient frequently and promptly. Nurses in Chang et al.'s study (2005) perceived being accessible ($M=4.50$; $SD=0.56$) as the most important subscale of the CARE Q. Explains and facilitates ($M=4.16$; $SD=0.42$) and monitors and follows through ($M=4.08$; $SD=0.40$) were the next highly rated subscales. Patients and nurses both agree and value the technical/competent aspect of caring behaviors.

Von Essen and Sjoden (2003) compared the perceptions of nursing caring behaviors between 105 Swedish nursing staff and 81 hospitalized cancer patients. Patients ranked monitors and follows through ($M=4.36$) as the most important subscale identifying those caring behaviors, which include knowing when to call the doctor; knows how to give shots; and manage the equipment. However, staff ranked comforts ($M=4.41$) as the most important subscale. Further analysis of the subscales indicated that there were significant differences ($p < .05$) between patients and staff ratings among five of the six subscales. Being accessible was the only subscale not to reach statistical difference. Based on the ten highest means of the CARE Q items ($M=5.31-4.52$), von Essen and Sjoden (2003) reported that patients perceive the technical/competent skills of nurses as more important than staff rated those skills. Of the staff rated behaviors, the ten highest rated ($M=5.72-4.51$) were most consistent with communication and the emotional aspect of caring (ex. listens to the patient, puts the

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patient first, and touches the patient to comfort him). These differences were significant ($p < 0.0001$) and provide the evidence for differences in patients and nurses perceptions of nurse caring behaviors.

Although CARE Q methodology was used in all of these studies (Chang et al., 2005; von Essen & Sjoden, 2003; Widmark-Petersson et al., 2000), similarities and differences were highlighted in nurses' and patients' perceptions of caring behaviors. The technical/competent nurse caring behaviors were highly rated by patients in two of the three studies (von Essen & Sjoden, 2003; Chang et al., 2005), but patients rated the emotional/comfort nurse caring behaviors highest in the Widmark-Petersson study. All used nurse-patient dyads to highlight the correlation in the nurse patient relationship. However, this may also be a limiting factor contributing to a small sample size because nurses were sampled one time only (Chang et al., 2005).

Moyle, Iselin, Baeslack-Smith, and Fleming (2005) and Poirier and Sossong (2010) used the Caring Behaviors Inventory Instrument (CBI) (Wolf et al., 1994), a five subscale measure of nurse caring behaviors to examine nurses' and patients' perceptions of nurse caring behaviors. Moyle et al. (2005) surveyed 31 Australian residents and 26 staff members (seven Registered Nurses and 19 Nursing Assistants) working in long term residential care facilities using the Caring Behaviors Inventory-42 (CBI-42) (Wolf et al., 1994). Face and content validity was confirmed by five Australian aged-care nurse experts. There were no statistically significant differences in patients' perceptions of nurse caring behaviors and nurses' perceptions of nurse caring behaviors on the five subscales of the Caring Behaviors Inventory. Although

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results were not statistically significant, patients rated overall presence of nurse caring behaviors ($M=215.29$; $SD=25.76$) higher than the nurses rated their caring behaviors ($M=207.62$; $SD=25.26$).

Poirier and Sossong (2010) used the CBI for Elders (CBI-E) (Wolf et al., 2006), which identifies 28 nurse caring behaviors using a three-point Likert scale (1=rarely to 3=often). They reported the Cronbach's alpha for this study was 0.89. Nineteen oncology patients and 15 nurses were surveyed from a large rural medical center in the United States. In this study, the nurses rated their overall nurse caring behaviors ($M=2.90$) significantly higher than the patients' rated overall nurse caring behaviors ($M=2.70$) ($U= -2.22$; $p=.026$). On selected items, such as standing up for your interests ($M=2.93$); managing your pain ($M=3$); and appreciating you as a unique person ($M=2.93$), nurses consistently rated their behaviors as more caring than patients. Patients reported, however, that their physical needs were met to a greater extent than their emotional needs ($W= -7.408$; $p=.00$). Results from this study indicate that Oncology patients view their cancer care treatments as more intensive requiring greater technical skills. This further confirms that there remain divergent perceptions of nurse caring behaviors between nurses and patients.

Berg and Danielson (2007) explored the meaning of the caring relationship in a phenomenological study using 13 interviews with seven patients with chronic illnesses such as diabetes and heart disease, and six nurses who cared for them, in a Medical unit. Patient and nurse themes and subthemes were identified. Patients' themes included maintaining dignity and a feeling of vulnerability. Patients' narra-

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tives showed that they wished the nurse caring encounters were not so brief. These brief encounters left patients feeling less confident in the caring relationship and patients expressed the need to have someone to go to for a sense of continuity in care. A nurses' theme was a "purposeful striving" (Berg & Danielson, 2007, p.503). Nurses used all their senses to make sense of the patient situation and help the patient to feel confident. Although nurses were perceived to be busy, nurses knew what to do and were knowledgeable. While trying to get to know the patient, nurses recognized that they were often busy and task oriented. Nurse caring situations were often described as hectic. Nurses felt that the nurse patient relationship was jeopardized while trying to maintain a caring environment. Similar to Sumner (2008) and Pearcey (2010), nurses were trying to do more in less time. The themes were supported by a quantity of quotations that were rich in description. In addition, the themes were validated by both researchers.

Emergency department. Hostutler, Taft, and Snyder (1999) used a descriptive design to determine the differences between patients' and nurses' perceptions of caring in the Emergency Department. Because no existing instruments were considered suitable for the study, the researchers developed and tested a 27-item questionnaire using a convenience sample of 600 patients and 88 nurses. The questionnaire was designed from results of a caring science literature review, previous patient surveys and patient complaints. Items were rated on a four-point Likert scale (1=very important to 4=very unimportant). There were statistically significant differences between patients' and nurses' ratings of caring behaviors on 18 of the 27 items ($p < .05$). For ex-

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ample, patients equally rated being able to say how they felt, knowing why things were being done, being involved in deciding treatments and having a quick registration (M=1.2). Important caring behaviors rated by the nurses included having easy access to the ED (M=1.5); being able to say how you feel (M=1.4); and being able to instruct patients (M=1.5). In addition, nine open-ended questions were included for completion. Results from these questions included the patients' desire to know what was happening and why (42%); to receive information about home care (35%); and medication instructions (23%). Approximately, 49% of the nurses thought that patients would identify the need to have a competent nurse to care for them; however, patients identified compassion and courtesy as important aspects of care. This further highlights the discrepancies in patients' and nurses' perceptions of nurse caring behaviors.

In summary, these studies provide qualitative and quantitative evidence of the existence of disparities between nurses' and patients' perceptions of nurse caring behaviors. Based on the reviewed literature, nurses' and patients' perceptions of nurse caring behaviors can be categorized into two types of nurse caring behaviors: the nurses' competent/technical skills and the communication/relationship skills (Berg & Danielson, 2007; Chang, Lin, Chang, & Lin, 2005; Hostutler, Taft & Snyder, 1999; Moyle et al., 2005; Poirier & Sossong, 2010; Widmark-Petersen, von Essen, & Sjoden, 2000; von Essen & Sjoden 2003). To a great extent, many of the patients rated the competent/technical skills of the nurses more highly than nurses rate their own skills (Berg & Danielson, 2007; Chang, Lin, Chang, & Lin, 2005; Poirier & Sos-

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song, 2010; Widmark-Petersen, von Essen, & Sjoden, 2000; von Essen & Sjoden 2003). There were nurses who also believed that patients wanted a technically competent nurse to care for them (Hostutler, Taft, & Snyder, 1999). Conversely, there were patients who rated the communication/relationship skills more highly than nurses rated their own communication/relationship skills (Hostutler, Taft, & Snyder, 1999).

Limitations of the reviewed literature about nurses' and patients' perceptions of nurse caring behaviors include small sample sizes (Chang et al., 2005); patient difficulty with methods of sorting 50 nurse caring behavior cards (von Essen & Sjoden 2003); lengthy questionnaires for the selected population (Moyle et al., 2005); too many questionnaires (Widmark et al., 2000); and translational issues with questionnaires (Chang et al., 2005). An additional limitation is that nursing assistants were included in one of the nursing samples (von Essen, & Sjoden, 2003) suggestive of the potential for perceptual differences in nurses' levels of care and non-valid nurse results.

Patient Satisfaction

Because the healthcare industry has become so highly competitive, patient satisfaction has become one of the major quality indicators of care (Wagner & Bear, 2008). Patient satisfaction with hospital, nursing and emergency department care has been an outcome of interest for several decades (Ervin, 2006). Hospital administrators, nursing administrators, and managers of healthcare personnel rely on patient satisfaction reports to make improvements in patient care services (Larrabee et al., 2004). The extensive interest in patient satisfaction is related to the current economics of the

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healthcare environment with institutions competing for patient visits and subsequent return visits. External hospital funding, rewards, and incentives often are based on performance on patient satisfaction surveys (Elder, Neal, Davis, Almes, Whitley, & Littlepage, 2004), which ensures that hospitals strive to improve patient satisfaction scores.

Patient satisfaction studies and the development of satisfaction instruments were begun in the 1950's (Wagner & Bear, 2008). Risser (1975) was one of the first nursing researchers to develop a patient satisfaction instrument to measure satisfaction with nursing care across three dimensions: the technical-professional dimension, the interpersonal-educational dimension, and the interpersonal-trusting relationship dimension. Donabedian (1988) has suggested that patient satisfaction is "the patient's judgment on the quality of care in all its aspects, but particularly as concerns the interpersonal process" (p. 1746). He reminds us that the "science and art of healthcare apply to both the technical and interpersonal spheres" of the patient relationship (Donabedian, 1988, p. 1744).

Patient satisfaction has long been measured by an independent organization Press Ganey of South Bend, Indiana. It is the largest national database of patient satisfaction used by 30% of all hospitals reporting patient satisfaction (Clark, Leddy, Drain, & Kaldenberg, 2007). More recently, the Centers for Medicare and Medicaid Services (CMS, 2014) has begun a national public recording of patient satisfaction data using HCAHPS (Hospital Consumer Assessment of Healthcare Providers and

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Systems) tool. Participation in this initiative will be a requirement for hospitals to receive their fair share of federal reimbursement (CMS).

Patient satisfaction has been recognized as a quality indicator for healthcare by The Joint Commission (Yellen, Davis, & Ricard, 2002) and the National Committee on Quality Assurance (Al-Mailam, 2005). Additionally, the American Nurses Association (ANA) has identified patient satisfaction with nursing care as one of the ten quality indicators for acute care settings (Healthcare Benchmarks, 1999). The ANA's recommended definition of patient satisfaction is "the patient opinion of care received from nursing staff during the hospital stay... to elicit patient views regarding satisfaction with key elements of nursing care services" (Healthcare Benchmarks, 1999 p.139).

Patient satisfaction and nurse caring behaviors have been positively correlated in many quantitative studies in many clinical settings (Palese et al., 2011; Rafii, Hajinezhad, & Haghani, 2008; Wolf, Colahan, Costello, Warwick, Ambrose, & Giardino, 1998; Wolf, Miller, & Devine, 2003; Yeakel, Maljanian, Bohannon, & Coulombe, 2003) and the ED (Elder et al., 2004). Many research studies conducted to examine nurse caring behaviors have been guided by Watson's conceptual framework (Palese et al., 2011; Rafii, Hajinezhad, & Haghani, 2008; Wolf, Colahan, Costello, Warwick, Ambrose, & Giardino, 1998; Wolf, Miller, & Devine, 2003; Yeakel, Maljanian, Bohannon, & Coulombe, 2003).

Patient care units. Wolf et al. (1998) applied an ex post facto design to examine patient's reports of nurse caring behaviors as reported on the CBI-42 (Wolf et al.,

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1994) and patient satisfaction as reported on the PSI (Hinshaw & Atwood, 1982). A convenience sample of 335 medical and surgical patients (30% response rate) who had been hospitalized during the past year responded to mailed instruments. Results indicated there was a positive, significant correlation between patient reports of nurse caring and patient satisfaction ($r=.78, p<.001$). Patients rated respectful deference to other as the highest rated subscale of the Caring Behavior Inventory-42 (CBI-42) (Wolf et al., 1994). Nurse caring behaviors associated with this subscale include treating the patient as an individual with dignity and respect (Wolf, 1994). In addition, patients answered open-ended questions on the Patient Satisfaction Instrument (PSI) (Hinshaw & Atwood, 1982). Content analysis was performed by Wolf et al., (1998) on the open-ended questions by the three investigators who reached agreement on the following: “nursing care was excellent/wonderful” (p. 103); however, many nurses were “overworked and much of the time was spent on paperwork” (p.103).

Similar research reports indicate that nurse caring behaviors had a moderately strong correlation with patient satisfaction in patients undergoing invasive procedures (Wolf, Miller, & Devine, 2003). In this study, patients from an Interventional Cardiac unit ($n=73$) were asked to complete the Caring Behaviors Inventory-42 (Wolf et al., 1994) and Patient Satisfaction Instrument (PSI) (Hinshaw & Atwood, 1982) on the day of the procedure, several hours after receiving sedation. Results from this correlational, descriptive comparative design showed a statistically significant moderate correlation between patient reports of nurse caring behaviors and patient satisfaction ($r=.53, p=.01$).

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Rafii, Hajinezhad, and Haghani (2008) studied patient's reports ($n=250$) of nurse caring behaviors and patient satisfaction. Male and female patients who were hospitalized in Iran for more than three days for medical or surgical conditions were considered for participation. The CBI-42 (Wolf et al., 1994) and PSI (Hinshaw & Atwood, 1982) were both used and indicated a positive significant correlation between nurse caring and patient satisfaction ($r=.72$, $p=.00$). Overall satisfaction as reported on the PSI in the Rafii study in Iran ($M=84.76$; $SD=15.65$) was lower than in the United States ($M=94.86$; $SD=12.91$) (Wolf et al., 1998). Nurse caring behaviors were also markedly lower in Iran ($M=184.14$; $SD=46.90$) than in the United States ($M=237.84$; $SD=15.11$) (Wolf, Miller, & Devine, 2003). The study in Iran suggests that nurse caring behaviors may be affected by religious and cultural patterns (touching a male patient by a female nurse) and not permissible in Iran. Therefore, cultural values of patients could affect patients' satisfaction with nurse caring behaviors.

In a very large multicenter study in six European nations (Cyprus, Czech Republic, Greece, Finland, Hungary, and Italy), Palese et al., (2011) examined the correlation between nurse caring behaviors and patient satisfaction in surgical patients. A total of 1565 participants responded to the Caring Behaviors Inventory-24 (CBI-24) (Wu, Larrabee, & Putnam, 2006) on a six-point Likert scale (1=never to 6=always). The Patient Satisfaction Scale (PSS) (Kim, 1991) measured satisfaction on a four-point Likert scale (1=very dissatisfied to 4=very satisfied). Both of these instruments were translated into the language of each participating country. A forward and back translation was performed on both of these instruments. Scoring ranged from 1 to 6

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(1= minimum to 6=maximum). Results indicated that there was a significant positive correlation between nurse caring behaviors and patient satisfaction ($r=0.66$; $p<.001$).

The CBI-24 subscale knowledge and skills was ranked highest among all participants ($M=5.3$; $SD=0.8$), but it did not contribute to patient satisfaction. The subscale connectedness had the lowest mean score ($M= 4.5$; $SD=1.1$), but was the main factor contributing to patient satisfaction ($R^2=0.404$; $p<.001$).

The subscale connectedness refers to caring behaviors that incorporate professional knowledge and skill with patience, honesty, and trust.

In an effort to modify the CBI-24, Coulombe, Yeakel, Maljanian, and Bohannon (2002) revised and validated the CBI-6 for use in hospitalized surgical patients. Six items for the CBI-24 accounted for more than 95% of the variance with an overall Cronbach's alpha of 0.89. They reported the internal consistency (alpha= 0.98) of the CBI-6 was comparable to the CBI-42. Coulombe et al., (2002) used the abbreviated six-item Caring Behaviors Inventory (CBI-6) with a reported Cronbach's alpha of 0.932 on a six-point Likert scale (1=never to 6=always). Scores ranged from 6 to 36. A hospital satisfaction survey was also used. This study evaluated the relationship between nurse caring behaviors and patient satisfaction on an inpatient surgical unit ($n=350$). Using a descriptive correlational pre-test, post-test design, nurse researchers studied the effectiveness of a multidimensional staff intervention to improve both patient satisfaction scores and patients' ratings of nurse caring behaviors. The intervention was a one month long educational program aimed at reinforcing the identification and incorporation of nurse caring behaviors and providing examples of nurse caring

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behaviors. Patients completed surveys seven weeks prior to and seven weeks post intervention. Results indicated that patients rated nurses as more caring ($M=34.3$; $SD=\pm 3.3$) and were more satisfied ($M=27.7$; $SD=\pm 2.4$) after the month-long intervention program. This study also supports the findings that patient satisfaction and patient ratings of nurse caring behaviors are positively correlated ($r=.778$).

Emergency department. Elder et al. (2004) studied the relationships between nurse caring behaviors and patient satisfaction in the Emergency Department. Triage nurse caring behaviors were studied to determine if these behaviors influenced patient satisfaction. This descriptive correlational design was conducted in a small rural hospital in Southern USA with eleven nurses who were matched with the 65 patients they treated in triage. After being discharged from the Emergency Department, patients were questioned via telephone interview using the Consumer Emergency Care Satisfaction Scale Adapted (CECSSa) (Raper, Davis, & Scott, 1999). This instrument included a caring subscale, an intent to return scale and the nurse satisfaction scale from the original instrument. Cronbach's alpha for the CECSSa was 0.93. Results indicated there was a positive relationship between patient satisfaction with triage nurse caring behavior ($r=.71$; $p < .001$), patient satisfaction with the triage nurse ($r=.90$; $p < .001$), and patient satisfaction with the intent to return ($r=.78$; $p < .001$).

Patient satisfaction continues to remain in the forefront of healthcare as it reveals to healthcare providers and administrators alike, the patients' subjective satisfactions with nursing care delivered (Welch, 2010). It also has predictive value as to whether patients will return to and/or refer friends and family to specific hospitals and

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emergency departments (Trout et al., 2000; Welch, 2010). Nursing care and nurse caring behaviors have been positively correlated with patient satisfaction in many quantitative studies in the Medical-Surgical setting (Coulombe et al., 2002; Palese et al., 2011; Rafii, Hajinezhad, & Haghani, 2008; Wolf, Colahan, Costello, Warwick, Ambrose, & Giardino, 1998; Wolf, Miller, & Devine, 2003) and in the ED (Elder et al., 2004).

The prevailing instrument used in these studies (Palese et al., 2011; Rafii, Hajinezhad, & Haghani, 2008; Wolf, Colahan, Costello, Warwick, Ambrose, & Giardino, 1998; Wolf, Miller, & Devine, 2003; Yeakel, Maljanian, Bohannon, & Coulombe, 2003) is the Caring Behaviors Inventory (CBI) (Wolf et al., 1994) that was developed using Watson's theoretical framework. In addition, Wolf et al. (1998); Wolf, Miller, and Devine, (2003); and Rafii, Hajinezhad, and Haghani, (2008) used the CBI-42 (Wolf et al., 1994) and Patient Satisfaction Instrument (PSI) (Hinshaw & Atwood, 1982) to examine the relationship between nurse caring with patient satisfaction in hospitalized patients.

Limitations to the reviewed literature on patient satisfaction include small sample sizes (Elder et al., 2004); too many questionnaires (Palese et al., 2011); a rural setting (Elder et al., 2004); specialty units (Wolf, Miller, & Devine, 2003); and the use of one unit (Coulombe et al., 2002), which may limit generalizability to other nursing populations. Countries with different health care systems than the United States may value nursing care and or health care differently affecting generalizability of results, as seen in the study by Palese et al. (2011).

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Conclusion

Nurse caring has been studied for many decades (Paley, 2001). Many nurse theorists and researchers have asserted that caring is the essence of nursing (Watson, 1979; Leininger, 1985; Wolf et al., 1998). The study of nurse caring seeks to identify behaviors that patients and nurses recognize as caring. Inconsistencies in nurse caring behaviors as perceived by patients and nurses' suggest that nurses may be uncaring (Turkel, 2001). Multiple qualitative (Berg & Danielson, 2007; Kihlgren, Nilson, & Sorlie, 2005; Pearcey, 2010; Schmidt, 2003; Sumner, 2008; Turkel, 2001; Wiman & Wikblad, 2002; Wiman et al., 2007); quantitative (Chang, Lin, Chang, & Lin, 2005; Elder et al., 2004; Hayes & Tyler-Ball, 2007; Hostutler, Taft, & Snyder, 1999; Marini, 1999; Moyle et al., 2005; O'Connell & Landers, 2008; Palese et al., 2011; Poirier & Sossong, 2010; Rafii, Hajinezhad, & Haghani, 2008; Walsh & Dolan, 1999; Widmark-Petersen, von Essen, & Sjoden, 2000; von Essen & Sjoden, 2003; Wolf, Colahan, Costello, Warwick, Ambrose, & Giardino, 1998; Wolf, Miller, & Devine, 2003; Yeakel, Maljanian, Bohannon, & Coulombe, 2003); and mixed method (Henderson et al., 2007) studies were conducted to better define what nurse caring behaviors mean to both patients and nurses. Although caring nurse is vitally important to high quality patient care and patient satisfaction, studies have shown that nurse caring behaviors have been perceived similarly (Chang, Lin, Chang, & Lin, 2005) and differently (Berg & Danielson, 2007; Hostutler, Taft, & Snyder, 1999; Poirier & Sossong, 2010; von Essen & Sjoden 2003; Widmark-Petersen, von Essen, & Sjoden, 2000) by both patients and nurses. Thus, it is essential to understand nurses' percep-

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tions of nurse caring behaviors, because nurses are the single most-important caregiver in the healthcare system and the first healthcare providers with whom patients and families interact (Gottlieb, 2002). Not only is it essential to understand the nurses' perceptions of nurse caring behaviors but, it is equally important to understand patients' perceptions of nurse caring behaviors given that patients who experience caring behaviors report a more timely recovery and greater satisfaction with care (Swanson, 1999; Turkel, 2001). The contribution of this study may highlight the relationship between the patients' perceptions of nurse caring behaviors and the nurses' perceptions of nurse caring behaviors with satisfaction in the ED.

Whether studied qualitatively or quantitatively, nurses' perceptions of nurse caring behaviors have been categorized as either possessing technical/competent skills (Berg & Danielson, 2007; Chang, Lin, Chang, & Lin, 2005; Hostutler, Taft & Snyder, 1999; Marini, 1999; Poirier & Sossong, 2010; von Essen & Sjoden 2003; Widmark-Petersen, von Essen, & Sjoden, 2000) or caring/compassionate skills (Hostutler, Taft, & Snyder, 1999) or both. Patients' perceptions of nurse caring behaviors have been categorized similarly. However, in qualitative research designs (Kihlgren, Nilson, & Sorlie, 2005; Pearcey, 2010; Sumner, 2008; Wiman & Wikblad, 2004), nurses have expressed concern to do "a little bit more" for patients to show caring. Interestingly, the various nursing specialty areas value nurse caring behaviors differently. For example, some Emergency Department nurses report valuing the technical/competent aspect of nurse caring (Walsh and Dolan, 1999) whereas other Emergency Department nurses report valuing the caring/compassionate aspect of

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forming a relationship with a patient (Wiman et al., 2007). Similar findings have been cited in Oncology nurses' perceptions of caring behaviors (Widmark-Petersen et al., 2000; Chang et al., 2005; Poorer & Sossong, 2010). Perceptions of priority of nurse caring behaviors may be related to environment or type of nursing unit, for example, more acutely ill patients value the technical/competent skills of nurse caring behaviors while patients who are less acutely ill value the caring/compassionate aspect of forming a relationship.

Further evaluation of the studies conducted in the ED (Elder et al., 2004; Hayes & Tyler-Ball, 2007; Hostutler, Taft, & Snyder, 1999; Kihlgren, Nilson, & Sorlie, 2005; Walsh & Dolan, 1999; Wiman & Wikblad, 2004, Wiman et al., 2007) found that nurses' perceptions of nurse caring behaviors were identified in three studies: two qualitative (Wiman & Wikblad, 2004; Kihlgren, Nilson, & Sorlie, 2005) and one quantitative (Walsh & Dolan, 1999). Patients' perceptions of nurse caring behaviors in the ED were studied in one qualitative (Wiman et al., 2007) and one quantitative (Hayes & Tyler-Ball, 2007). Both patients' and nurses' perceptions of nurse caring behaviors was examined by Hostutler, Taft, & Snyder (1999). Only one study conducted in 2004 by Elder et al. investigated patient satisfaction with nursing triage in the ED.

Because patient satisfaction with nurse caring behaviors is a factor in the patients' hospital experience (Wolf et al., 1998), further research is needed to determine to what extent caring is perceived by patients and nurses in the Emergency Department, to determine if there is a relationship between nurses' perceptions and patients'

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perceptions of caring, and does nurse caring behaviors explain patient satisfaction. Moreover, patients' perceptions of nurse caring behaviors have been correlated with improving patient recovery time and patient satisfaction. Examining the relationships between patients' perceptions of nurse caring behaviors and nurses' perceptions of nurse caring behaviors and their relationship with patient satisfaction in the Emergency Department has the potential to generate data to ultimately improve patient care and patient satisfaction in the ED.

Chapter III

METHODOLOGY

Introduction

In this chapter, the research methods to investigate the variables of nurse caring behaviors and patient satisfaction are identified and the study design, setting, sample, sampling procedure, instruments selected, the statistical analyses, and ethical considerations were discussed. Using a descriptive cross-sectional design, this study describes the variables of nurse caring behaviors and patient satisfaction and compares the frequency with which they were reported by both patients and nurses. Furthermore, the relationships between the variables, patients' perceptions of nurse caring behaviors, nurses' perceptions of nurse caring behaviors and patient satisfaction were examined in the ED.

Setting

Patients were recruited from a Mid-Atlantic regional medical center with two ED campuses designated as a 911 receiving hospital by New York City Regional Emergency Department Standards. Annually, approximately 128,000 patients visit the medical center for adult and pediatric emergency and urgent care (North Shore LIJ/Staten Island University Hospital website). Approximately 8100 patients visit the North campus and 3300 patients visit the South campus each month. Of the 11,400 patients, 75% (9100) are discharged directly from the ED (Staten Island University Hospital, 2013). Only about 696 (0.41%) patients leave the ED each year without be-

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ing evaluated (Staten Island University Hospital, 2013). Patients were recruited from both EDs based on a daily census of about 200–300 patient visits per day. The emergency departments at both North and South campuses are directed by the Vice President for Emergency Services and maintain the same standards of care for patients of the community. They share the same policies and procedures as mandated by New York City Regional Emergency Department Standards.

Sample

A power analysis was conducted using the software program G*Power (Faul, Erdfelder, Buchner, & Lang, 2009) to determine the sample size needed to detect a specified effect size between the independent and dependent variables in the proposed analysis. The power analysis indicated that with power set at .80 and alpha set at .05, a medium size effect (.15) would be detectable using a sample size of 85 study dyads. Thus, the minimum sample in this study consisted of 86 nurse/patient dyads with no nurse being sampled more than once. The sample in this study consisted of 86 patients and 86 nurses.

This was a purposive convenience sample from which patients were recruited based on the inclusion and exclusion criteria. The sample included adult patients who were between the ages of 18 and 69 years who arrived in the Emergency Department with a non-life threatening condition and who were triaged with an Emergency Severity Index (ESI) of level 3, 4 and 5. Patients triaged level 3 were considered Urgent (the patient was stable but treatment needed to be provided as soon as possible). Examples included abdominal pain, mild congestive heart failure, renal colic, and fever

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of 102–105 degrees (Staten Island University Hospital, 2010). Patients triaged level 4 were considered Semi-Urgent (the patient was at low risk for deterioration). Examples included patients with mild nausea and vomiting, cough, congestion and a low-grade temperature, sprains, trauma within the past week and worsening pain in an extremity, and simple fractures without neurovascular compromise (Staten Island University Hospital, 2010). Patients triaged level 5 were considered Non-Urgent (the patient could safely wait and be seen in a lower acuity treatment area). Examples included bumps and bruises, wound checks, abrasions and contusions, superficial lacerations, and suture removal (Staten Island University Hospital, 2010).

On the day of data collection, these patients were cared for by the same Emergency Department nurse from the time of arrival in the ED to discharge from the ED. Because dyads were compared, and if a patient agreed to participate in the study, the nurse caring for the patient also had to be enrolled in the study. If the nurse had not already completed the study documents and wished to participate, the nurse was enrolled, consented and completed the study instruments the day of data collection. Only one nurse (n=1) was enrolled on the day of patient data collection. If the nurse declined, the patient was not enrolled. Patients were able to read, speak and understand English. Excluded patients were those who were greater than the age of 70; who were being admitted to the hospital; who had an Emergency Severity Index (ESI) of level 1 through 2 as rated by the triage nurse; and who left the Emergency Department without receiving a professional assessment. Patients greater than age 70 were excluded because elderly people may tire more easily and experience sensory changes, such as

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requiring large type print and non-glare-type paper (Wolf, Zuzelo, Costello, Cattilico, Cooper, Crothers, & Karbach, 2004).

Both patients and nurses were recruited from both campuses from all shifts seven days a week. The patients and nurses were recruited from both sites proportional to the number of patients seen at each site (8100 patients North campus census and 3300 patients South campus census). Thus, the sample patient population recruited from the total patient population was 60% (n=63) from the North campus and 40% (n=23) from the South campus. The patient sample was predominantly female with more than three-quarters reporting they were female (76.4%; n=58). About three-quarters reported being White/Caucasian (75.3%; n=55); 20.5% (n=15) reported being African American; and 4.1% (n=3) reported being Asian. About one-quarter of the patient sample (24.4%; n=21) reported being of Hispanic/Latino ethnicity.

Instruments

The Caring Behaviors Inventory (Appendices E&J). Nurses' perceptions of nurse caring behaviors and patients' perceptions of nurse caring behaviors were measured using the Caring Behaviors Inventory (CBI) that was developed by Wolf in 1981. It is one of the first instruments designed to quantitatively measure nurse caring behaviors. Presently, it remains one of the most widely used instruments to measure nurse caring and was selected due to its conceptual similarity to the theory of human caring (Watson, 1979, 1985, 2008) and Watson's ten carative factors. The first version of the instrument was a 75-item questionnaire developed from nursing actions and behaviors drawn from nursing literature. The instrument was revised to include

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43 items with a four-point Likert scale. After an exploratory factor analysis, 6 factors resulted that had eigenvalues greater than one. One item was eliminated due to poor factor loadings (less than 0.4) (Wolf, Giardino, Osborne, & Ambrose, 1994). Further analysis by the researchers concluded that there were five dimensions of caring based on factor loadings. Test-retest reliability was established and the reported correlation coefficient was 0.83 and the reported Cronbach's alpha coefficient for internal consistency was .96 (Wolf, Giardino, Osborne, & Ambrose, 1994). The result was the development of the Caring Behaviors Inventory-42 (CBI-42), a 42-item six-point Likert-scaled questionnaire that measures nurse caring across five dimensions: respectful deference to the other, assurance of human presence, positive connectedness, professional knowledge and skill, and attentiveness to the other's experience (Wolf, Giardino, Osborne, & Ambrose, 1994).

Wu, Larabee, and Putnam (2006) adapted and validated the CBI-24 for use in Medical, Surgical and Step-Down units. Nurses (n=90) and patients (n=362) were asked to rate caring words and phrases on a six-point Likert scale (1=never to 6=always). Factor analysis of the CBI-24 accounted for 97% of the variance of the original 42 items in the CBI-42 with an overall Cronbach's alpha=0.96 (Wu et al., 2006) and caring dimensions were condensed to a four factor structure. For the four subscales, Cronbach's alpha values ranged from .82-.92. Patient (.96) and nurse (.96) alphas were very similar for overall caring behaviors indicating high internal consistency reliability (0.96). The reported alphas for this study were patient (.94) and nurse (.94). Patient alphas for the 4 subscales identified were: assurance (.92);

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knowledge and skill (.87); respectfulness (.91); and connectedness (.82). Reported nurse alphas for the subscales were: assurance (.92); knowledge and skill (.83); respectfulness (.92); and connectedness (.87). The Caring Behaviors Inventory-24 (CBI-24) (Wu, Larabee, & Putnam, 2006) was selected for use based on the brevity of the tool, its measurement properties, reliability, and validity along with consideration of the characteristics of the Emergency Department setting, which justifies the use of a less burdensome instrument. Although the Caring Behaviors Inventory-6 (CBI-6) is an abbreviated instrument and has measurement properties similar to the CBI-42, it has not been widely used and has been documented in one study by Yeakel, Maljanian, Bohannon, and Coulombe (2003).

Patient satisfaction instrument (Appendix K). Patient satisfaction with nursing care was measured using the Patient Satisfaction Instrument (PSI) (Hinshaw & Atwood, 1982). Patient satisfaction surveys have evolved from Nancy Risser's original work with the Patient Satisfaction Instrument (PSI). The purpose of Risser's work was to evaluate patients' attitudes towards nurses and nursing care in primarily ambulatory health care settings (Risser, 1975). The conceptual framework for the PSI was based on patient satisfaction as an evaluation criterion of nursing care that was described as the corresponding match between a patient's expectations of ideal nursing care and the perception of care actually received (Risser, 1975).

The 25-item instrument was developed over eight years with more than 600 inpatients over five clinical studies (Hinshaw & Atwood, 1982). The instrument uses a five-point Likert scale (5=strongly agree, 4=agree, 3=uncertain, 2=disagree,

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1=strongly disagree) to measure patient satisfaction across three dimensions: the technical-professional dimension ($\alpha = .786$); the interpersonal-educational dimension ($\alpha = .784$); and the interpersonal-trusting relationship dimension ($\alpha = .876$) (Risser, 1975). Risser's original trials with the PSI had reported Cronbach's alphas for subscales ranging from .64- .89 (Risser, 1975). A total scale alpha coefficient was reported at .92.

Hinshaw and Atwood (1982) replicated Risser's work maintaining the original conceptual framework of patient satisfaction as an evaluation criterion for healthcare and nursing care. The instrument was revised to measure satisfaction with inpatient nursing care. To determine validity and reliability of the PSI, they evaluated a total of five previous studies that included Risser's study, Consumer Satisfaction Study, All Registered Nurses Staffing Study, Care-Comfort Study, Operative Trajectory Study (Hinshaw & Atwood, 1982). Upon completion of the PSI appraisal from the previous five studies and using newer psychosocial evaluation criteria, Hinshaw and Atwood (1982) concurred the instrument had acceptable levels of both reliability and validity. The PSI has been used in additional nursing research with reported total instrument alpha coefficients of 0.93 (Wolf et al., 1998) and 0.90 (Raffi et al., 2008) with evidence supporting that there is a positive correlation with patient satisfaction and nurse caring in Medical and Surgical clinical settings (Raffi et al., 2008; Wolf et al., 1998; Wolf, Miller, & Devine, 2003). The total scale alpha for this study was .94.

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Nurse and patient demographic sheets. Both nurse and patient demographic sheets were designed by the nurse researcher to elicit descriptive data of the sample population. These are described below.

Nurses' demographic data instrument (Appendix F). Descriptive data on the nurses' demographic data instrument included the nurse's age, gender, marital status, race and ethnic background, highest level of education, number of years working as a nurse and number of years working as an ED nurse and employment status. This data was coded to match to nurse-patient dyads for analysis. The nurse demographics are reported in Chapter IV.

Patients' demographic data instrument (Appendix I). Descriptive data on the patients' demographic sheet included the patient's age, gender, marital status, race, and ethnic background, highest level of education, employment status, previous ED visits, total number of visits within the past 12 months, wait time in ED waiting room, and the time that the nurse spent with the patient while in the ED. For a description of patient demographics, see Chapter IV.

Data Collection. After IRB approvals were obtained from both the hospital and Seton Hall University, the nurse researcher commenced with data collection.

ED approval. Having prior verbal and written support from The Vice President for Emergency Nursing Services, the two ED nurse managers were informed of the proposed study by the VP of Emergency Services and the nurse researcher. At this meeting, the nurse researcher used a prepared oral script (Appendix A) and asked for

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suggestions for the best process to recruit the ED nursing staff and explain the details of the research study.

Staff meeting. With ED management consultation, the nurse researcher arranged for a meeting with ED staff on each shift at both sites in a private hospital area provided by the ED managers. Approximately 20% of staff at both sites attend monthly staff meetings; therefore it was necessary to conduct additional meetings to recruit at least 50–60% of the nursing staff. At the beginning of the meeting, a brief introduction by the nurse researcher was given using an oral script (Appendix B) introducing herself to the nursing staff. Although the nurse researcher works at the site, she does not work in the ED nor has she worked with the staff currently working in the ED providing evidence of no conflict of interest for this study. The nurse researcher brought samples of the research packet. There was time allotted for questions and answers.

Sample research packet for RNs. A sample packet of the research materials with the enclosed informed consent were discussed with the ED staff at the meeting. A letter to the nursing participants (Appendix C) was the first item in the study packet was read to the nurses by the nurse researcher. This letter explained the study, stated the study purpose, time requirements to participate, data collection procedures, variable measures, and provision of informed consent (Appendix D). It also helped to motivate and recruit the nursing staff. The nurse researcher also explained the numerical coding system and how to respond to the informed consent; the Caring Behavior Caring Inventory-24 (CBI-24) (Appendix E); and the demographic sheet (Appendix F).

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In addition, the process for receiving a copy of the general findings at the end of the completed study was offered and discussed. Completion of the CBI-24, consent form and demographic form took approximately 10–15 minutes to complete. An explanation of the nurses' and patients' rights were verbally explained and presented in writing in the consent form. Nurses were told that whether they participated or not would only be known to the nurse researcher and in no way would it affect their jobs at the organization. After this was done at the meeting, the nurses were asked to sign the written consent and complete the demographic form and CBI-24 that was then coded by the nurse researcher. Nurses were assured that there was no way to link their names on the consent form (which is not numerically coded). Only the data collection instruments (demographic form and CBI-24) were numerically coded. The names of the nurse participants on the consent forms were kept confidential. In addition, because the coded numbers were only linked for the researcher to a confidential list of the participants and for matching dyads, all responses on the data collection forms and demographic data remained confidential. A master list of the names of all the nurses obtained from the consent forms was created by the researcher and maintained as a single confidential document. The master list was maintained solely by the researcher on two separate password protected USB ports that were maintained in the researcher's locked desk drawer. Only the researcher had the single key to the locked drawer. The nurse participants were told that they had no obligation to participate in the study and were able to withdraw at any time without penalty and withdrawal did not impact their employment at the organization. Nurses' rights as a study

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participant as stated in the Letter to Participants and the Informed Consent were presented verbally and in writing. Written contact information for the researcher and Dissertation Chairperson were stated in the Informed Consent in the case that the nurse had questions about the study or the research process.

Each study packet given to the nurses was enclosed in an unsealed manila envelope and coded with an assigned ID number in the upper right hand corner, as well as all the contents in the packet except for the Letter to Participants and the Informed Consent. The Informed Consent indicated on the bottom where any participant who wished to receive a copy of the general findings of the study could write his or her name and provide an address where the information could be mailed at the completion of the study. The nurses returned the study packet directly to the nurse researcher or placed it in the locked box in the nurse educator's office (North site RNs) or in the nurse manager's office (South site RNs). Nurses had access to the locked box 24 hours a day, seven days a week. An assistant manager was present when the nurse manager or nurse educator was not available and had access to the office where the locked box was placed. It was preferred that the nurse participants return the study packet directly to the nurse researcher that day.

When the nurse participant packets had been returned to the nurse researcher, a letter of thanks for their participation was given along with a small token of appreciation (Ambu® rescu key). The nurse researcher placed the completed instruments in the researcher's locked desk drawer. Only the researcher had the single key to the locked drawer.

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Patient recruitment. The nurse researcher positioned herself in the Emergency Department on varying days and on different shifts each visit. She also recruited patients from the South campus following the same pattern. Upon each visit to the Emergency Department, the nurse researcher notified the Assistant Patient Care Unit Manager (APCUM) when she came to the unit and stated the purpose for being in the ED. She brought the explanatory letter with her as a reminder to the staff and APCUM. She identified herself to the staff to gain staff cooperation. The nurse researcher along with the APCUM reviewed the electronic tracking board to identify appropriate patient recruits. This tracking board identified patients based on the Emergency Severity Index (ESI), translator needs, length of time in the ED, the nurse caring for the patient, patient location in the ED, and readiness for discharge. The nurse caring for the patient was asked to corroborate the patient's readiness for discharge. Only patients of nurses who had already consented were approached if they meet the inclusion/exclusion criteria. If a nurse caring for the participant had not previously completed the study documents and wished to participate, he/she was enrolled, consented and completed the study instruments on the day of patient data collection. If the patient met the study criteria, the nurse researcher then approached the patient to describe the study verbally and in writing and asked the patient to participate in the study (Appendix G). Once patients consented, they received a study packet. The study packet was enclosed in an unsealed manila envelope with an assigned ID number in the upper right hand corner. In addition, the manila envelope had an area to identify the nurse caring for the patient (numerical code). The patient packet

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included the Letter to Participants and the Informed Consent (Appendix H). The demographic form (Appendix I), the Caring Behavior Inventory-24 (CBI-24) (Wu et al., 2006) (Appendix J) and the Patient Satisfaction Instrument (PSI) (Hinshaw & Atwood, 1982) (Appendix K) that were numerically coded was also included in the packet. The Informed Consent indicated how any participant who wished to receive a copy of the general findings of the study could contact the researcher at the completion of the study. The patient participants were reminded that participation was voluntary and they could decide whether they wanted to participate. It was also explained that the participant could withdraw without penalty at any time during data collection. An explanation of the expected length of time (approximately 15 minutes) to complete the study packet and instruments were provided. The nurse researcher was present while the participant completed each form. Brief instructions for completing each form were reviewed so that the participant was not overly burdened. If the patient desired, the nurse researcher was able to check participant responses on the questionnaires to ease the work of the patient. After completion of the questionnaires, the patient received a copy of the signed consent and a small gift (a first aid kit) for taking the time to participate in the study. Once completed all the instruments were placed in the manila envelope and sealed. The nurse researcher placed completed instruments in the researcher's locked desk drawer as described for the nurse survey.

Data Analysis

Data were analyzed using Statistical Package for the Social Sciences (SPSS), version 22 software for Windows (IBM, 2013). Descriptive statistics were computed

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on the sample characteristics and study variables in the form of frequencies, means, standard deviations, and percentages to best characterize the sample. If the score distribution of a continuous variable was significantly non-normal, transformation of the data was considered. All scores were considered normal; transformation of the data, therefore, was not performed. A reliability calculation of the study instruments was also conducted. Following descriptive summary of the data, inferential analyses were employed to answer the research question posed by this study to explore the relationships between patients' perceptions of nurse caring behaviors, nurses' perceptions of nurse caring behaviors and patient satisfaction in the Emergency Department.

T-tests, ANOVAs and correlations were conducted to identify the presence of statistically significant relationships between patient satisfaction with patients' perceptions of nurse caring behaviors and nurses' perceptions of nurse caring behaviors. Further analysis also included an examination of statistically significant relationships between patient satisfaction and patient and nurse demographic characteristics.

Ethical Considerations

Provisions for the protection of human subjects in this study were maintained throughout the course of the investigation. Guidelines for ethical research for human subjects were provided by the Institutional Review Boards (IRBs) of both the study hospital and Seton Hall University. The researcher was required to maintain the safety of the research participants, describe the process of informed consent and provide for privacy and confidentiality of the participants. This research study followed the guidelines as outlined by both Institutional Review Boards.

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Research participants, whether they were nurses or patients, were assured of their protection during the Informed Consent process. They were informed that there were no risks for participating in this research beyond those experienced in everyday life. Although there were no direct benefits for the participant, it was explained that the increased nursing knowledge gained might ultimately improve nursing care in the ED. Participation in the research was completely voluntary, free of coercion and at no cost to the participant as described in the Informed Consent.

Written Informed Consent was obtained from each participant by the researcher after the participant had time to consider the risks and benefits of participating in the research. The researcher verbally explained the process and provided an opportunity for participants to ask appropriate questions. Participants were able to withdraw from the study at any time without any penalty or loss of benefits/care that they would normally receive. If participants had further questions about the research, the contact information of the researcher (business card) was provided to participants. Participants also received a signed copy of the consent form.

Participants were assured of privacy and confidentiality. A verbal and written description of how the research data was collected and stored was explained to all participants in addition to receiving a written explanatory letter. The data was stored on two USB ports and maintained in the researcher's locked desk draw. Only the researcher had the single key to the locked draw. Participants were reassured that no one could view their responses other than the researcher. Also, any publications re-

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sulting from this research would have no identifiable information linking them to the research.

Chapter IV

FINDINGS

Introduction

This descriptive cross-sectional study examined the relationships between patients' perceptions of nurse caring behaviors, nurses' perceptions of nurse caring behaviors, and patient satisfaction in the Emergency Department. Over the data collection period (January 28, 2014 through May 31, 2014), 86 nurse/patient dyads participated in this study. Nurse participants completed the Nurse's Background Information questionnaire and the Caring Behaviors Inventory-24 (CBI-24) Nurse Version (Wu, Larrabee, & Putnam, 2006). Patient participants completed the Patient Background Information questionnaire, the Caring Behaviors Inventory-24 (CBI-24) Patient Version (Wu, Larrabee, & Putnam, 2006), and the Patient Satisfaction Instrument (PSI) (Hinshaw & Atwood, 1982).

Sample and Setting

Patients were recruited from a Mid-Atlantic regional medical center with two ED campuses designated as 911 receiving hospitals by New York City Regional Emergency Department Standards. Patients were recruited from both EDs based on a daily census of about 200–300 patient visits per day. This was a purposive convenience sample from which patients were recruited based on the inclusion and exclusion criteria. The sample included adult patients who were between the ages of 18 and 69 years, who arrived in the Emergency Department with a non-life threatening condi-

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tion and who were triaged with an Emergency Severity Index (ESI) of level 3, 4 or 5. These patients were cared for by the same Emergency Department nurse from the time of arrival in the ED to discharge from the ED on the day of data collection.

Excluded patients were those who were greater than the age of 70; who were admitted to the hospital; who had an Emergency Severity Index (ESI) of level 1 or 2 as rated by the triage nurse; and who left the Emergency Department without receiving a professional assessment. The nurse sample included 86 RNs in the nurse/patient dyads employed by the Mid-Atlantic regional medical center who worked in the ED either full or part time.

Instrumentation

Demographic nurse characteristics. Data were gathered from the participating nurses regarding several demographic and professional characteristics including, age, gender, marital status, race, ethnic background, RN experience, Emergency Department experience, highest level of professional nursing education, and employment status.

Demographic patient characteristics. Data were gathered from participating patients regarding several demographic characteristics including, age, gender, marital status, race, ethnic background, employment status, highest level of completed education, previous Emergency Department visits, total number of visits within the past 12 months, wait time in the ED waiting room, and the time that the nurse spent with the patient while in the ED.

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Nurse caring behaviors as perceived by the patient. Nurse caring behaviors as perceived by the patient were measured using the Caring Behaviors Inventory-24 (Cbi-24) Patient Version (Wu, Larrabee, & Putnam, 2006). The CBI-24 is a 24-item instrument where items are measured on a 1 (never)- to 6 (always)-point Likert-type scale. The scale is computed by taking the mean score of all 24 items, creating a total score range of 1–6 with higher scores, reflecting greater nurse caring behaviors as rated by the patients. For the current study, the instrument reflected an excellent level of internal consistency (Cronbach's alpha= .94).

Nurse caring behaviors as perceived by the nurse. Nurse caring behaviors as perceived by the nurse were measured using the Caring Behaviors Inventory-24(Cbi-24) Nurse Version (Wu, Larrabee, & Putnam, 2006). The CBI – 24 is a 24-item instrument where items are measured on a 1 (never)- to 6 (always)-point Likert-type scale. The scale is computed by taking the mean score of all 24 items, creating a total score range of 1–6 with higher scores reflecting greater nurse caring behaviors as rated by the nurses. For the current study, the instrument reflected an excellent level of internal consistency (Cronbach's alpha= .94).

Dyad difference scores reflecting nurse caring behaviors as perceived by patients and nurses and categorization. Difference scores reflecting nurse caring behaviors as perceived by patients and nurses were computed by subtracting total mean CBI-24 nurse scores from total mean CBI-24 patient scores. The scores subtracted reflected nurse-patient dyads experiences where patients rated the nurses who provided care to them. The nurses rated their caring behaviors provided to patients. The

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range of dyad difference scores was categorized into three groups. The first group reflected scores where the patients rated the nurse caring behaviors higher than the nurse rated their caring behaviors. This group was defined as difference scores that fell at $-.5$ or more negative standard deviations below the mean difference score. The second group reflected scores where the patients and nurses rated nurse caring behaviors comparably. This group was defined as difference scores that fell within $-.49$ to $.49$ SD of the mean difference score. The third group reflected scores where the nurses rated their nurse caring behaviors higher than the patients rated the nurses. This group was defined as difference scores falling $.5$ or more standard deviations above the mean difference score.

Patient satisfaction. Patient satisfaction was measured using the Patient Satisfaction Instrument (PSI) (Hinshaw & Atwood, 1982). The PSI is a 25-item instrument where items are measured on a 1 (strongly disagree)- to 5 (strongly agree)-point Likert-type scale. The scale is computed by taking the mean score of all 25 items, creating a total score range of 1-5 with higher scores reflecting greater patient satisfaction. For the current study, the instrument reflected an excellent level of internal consistency (Cronbach's $\alpha = .94$).

Data Analysis

Data were analyzed using the Statistical Package for the Social Sciences (SPSS), version 22 software for Windows (IBM, 2013). The research question and sub questions were answered based on the data from the sample of 86 dyads that completed all questionnaires. The sample size of 86 dyads calculated with G^* power

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(Faul, Erdfelder, Buchner, & Lang, 2009) was sufficient to address the research questions with power set at .80 and alpha set at .05, and a medium size effect (.15).

Data analysis was conducted in three phases. First, to describe the study sample, all items on the demographic questionnaires (ie, nurse demographic variables for age, gender, race, ethnicity, marital status, professional education, employment status, RN experience, ED experience) and patient demographic variables (ie, age, gender, race, ethnicity, marital status, education, employment status, previous ED visits, ED wait time, time spent by the nurse, and ESI) were analyzed at the univariate level. This included descriptive statistics (e.g., frequencies, means, and standard deviations) for all demographic variables. Additionally, descriptive statistics (e.g., frequencies, means, and standard deviations) for the major study variables of patients' perceptions of nurse caring behaviors, nurses' perceptions of nurse caring behaviors, dyad difference scores and patient satisfaction were analyzed.

Second, bivariate tests (ie, t-tests, ANOVAs, correlations) were used to identify which nurse demographic variables (ie, age, gender, race, ethnicity, marital status, professional education, employment status, RN experience, and ED experience) and patient demographic variables (ie., age, gender, race, ethnicity, marital status, education, employment status, previous ED visits, ED wait time, time spent by the nurse, and ESI) were related to the dependent variable patient satisfaction at a statistically significant ($p < .05$) level.

Third, a multiple linear regression model was used to identify which study variable (ie., nurse age, patient age, time spent with patient or ED wait time) was the

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strongest predictor of patient satisfaction. The descriptive statistics for the study are presented below.

Descriptive Statistics

Nurse sample characteristics. The descriptive statistics for the nurse sample characteristics are shown in Table 1. Data indicated that the average age of the nurse in the sample was 36 years ($M=35.89$; $SD=10.18$; $MIN/MAX=22/65$) old. This is in stark contrast to the 2008 National Sample Survey of Registered Nurses, which reports that the average age of the RN population is 47 years of age. More than three-quarters of the sample (83.7%; $n=72$) were female. A majority of nurses 79.5% ($n=66$) described themselves as White/Caucasian, 8.4% ($n=7$) as African American/or African native, 9.6% ($n=8$) as Asian, and 2.4% ($n=2$) as Native Hawaiian/Pacific Islander. Almost five percent (4.8%; $n=4$) described themselves as being of Hispanic or Latino ethnicity. About half the nurse sample reported being married (41.9%; $n=36$) versus single (44.2%; $n=38$) and had either an Associate's (42.9%; $n=36$) or Bachelor's degree (48.8%; $n=41$) in nursing.

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Table 1**Nurse Sample Characteristics (n=86)**

Variable	n	%
Age		
20–29 Years	31	36.5
30–39 Years	27	31.8
40–49 Years	18	21.2
50–69 Years	9	10.6
<i>Missing 1</i>		
Gender		
Male	14	16.3
Female	72	83.7
Race		
White/Caucasian	66	79.5
African American/or African native	7	8.4
Asian	8	9.6
Native Hawaiian/Pacific Islander	2	2.4
<i>Missing 3</i>		
Ethnicity		
Hispanic or Latino	4	4.8
Not Hispanic or Latino	78	94.0
<i>Missing 4</i>		

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Table 1, continued**Nurse Sample Characteristics (n=86)**

Variable	n	%
Marital Status		
Single	38	44.2
Married	36	41.9
Divorced	9	10.5
Widowed	1	1.2
Separated	1	1.2
<i>Missing 1</i>		
Professional Education		
Diploma Graduate	3	3.6
Associate's Degree	36	42.9
Bachelor's Degree in Nursing	41	48.8
Master's Degree in Nursing	4	4.8
<i>Missing 2</i>		

About one-quarter (23.3%; n=32) of the sample reported being currently enrolled in a BSN Program, and 14.0% (n=12) reported being enrolled in a MSN Program. About 17% (17.5%; n=15) reported having a degree in another discipline. A little over half of the nurse sample (57.6%; n=49) reported being a new graduate (having < one year of experience) or having 1–5 years of experience. More than half (57.6%; n=49) of the nurse sample reported being a new graduate (n=4, having < one year of ED experience) or having 1–5 years of emergency department experience (n=45). The majority of nurse participants reported working full-time (80.2%; n=69), and the remainder worked part-time (18.6%; n=16). These statistics are shown in Table 2.

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Table 2**Nurse Sample Characteristics (n=86)**

Variable	n	%
Currently Enrolled		
BSN Program	32	23.3
MSN Program	12	14.0
Degree in Another Discipline		
Associate's Degree	3	3.5
Bachelor's Degree	11	12.8
Master's Degree	1	1.2
RN Experience		
New Graduate (< 1 year)	4	4.7
1–5 years	45	52.9
6–15 years	24	28.2
>16 years	12	14.1
<i>Missing 1</i>		
Emergency Department Experience		
New Graduate (< 1 year)-5 years	61	71.8
6–15 years	16	18.9
>16 years	8	8.9
<i>Missing 1</i>		
Employment Status		
Full Time	69	80.2
Part Time	16	18.6
<i>Missing 1</i>		

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Patient sample characteristics. The descriptive statistics for the patient sample are presented below. The average age of the adult patient in the sample was about 42 years old (M=41.57; SD=14.94; MIN/MAX=19/69) and predominantly female (76.4%; n=58). Three-quarters reported being White/Caucasian (75.3%; n=55), while 20.5% (n=15) reported being African American, and 4.1% (n=3) reported being Asian. Approximately one-quarter of the patient sample (24.4%; n=21) reported being Hispanic/Latino ethnicity. More than one-third of the sample of patients reported being single (38.4%; n=33), and about half (45.3%; n=39) reported being married. Just over two-thirds (66.9%; n=55) of the sample reported being a high school graduate or having some college experience. Nearly half the sample (46.5%; n=40) reported being employed full time (37.5hours/week or more). Over two-thirds (68.6%; n=59) of the sample reported having a previous emergency department visit and 15.2% having at least two visits within the past 12 months. The CDC estimates that 37.4% of adult patients age 18–64 in the United States had at least one or more ED visits and 13.8% had two or more visits to the ED National Hospital Ambulatory Medical Care Survey (NHAMCS, 2010). Thus, our patient sample was not characteristic of the US average for ED visits. Table 3 depicts the patient sample characteristics.

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Table 3**Patient Sample Characteristics (n=86)**

Variable	n	%
Age		
18–19 Years	1	1.2
20–29 Years	23	26.7
30–39 Years	19	22.1
40–49 Years	14	16.3
50–59 Years	15	17.4
60–69 Years	14	16.3
Gender		
Male	28	32.6
Female	58	76.4
Race		
White/Caucasian	55	75.3
African American	15	20.5
Asian	3	4.1
American Indian/Alaskan Native	0	
Native Hawaiian/Pacific Islander	0	
<i>Missing 13</i>		
Ethnicity		
Hispanic/Latino	21	24.4
Not Hispanic or Latino	30	34.9
<i>Missing 35</i>		
Marital Status		
Single	33	38.4
Married	39	45.3
Divorced	7	8.1
Widowed	2	2.3
Separated	4	4.7
<i>Missing 1</i>		

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Table 3, continued**Patient Sample Characteristics (n=86)**

Variable	n	%
Completed Level of Education		
< High School	4	4.7
High School Graduate	26	30.2
Some College	29	33.7
College Graduate	16	18.6
Graduate School	9	10.5
Vocational Training	2	2.3
Employment Status		
Full time (37.5hours/week or more)	40	46.5
Part time (< 37.5 hours/week)	10	11.6
Unemployed	7	8.1
Retired	12	14.0
Full time homemaker	6	7.0
Unable to work due to injury/illness	8	9.3
Other	2	2.3
<i>Missing</i> 1		
Previous Emergency Department Visits		
Yes	59	68.6
No	25	29.1
<i>Missing</i> 1		
Emergency Department Visits within the past 12 months		
None	33	41.8
1 visit	17	21.5
2 visits	12	15.2
3 visits or more	17	22.5

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A little less than half of the patients in the sample (47.1%; n=40) reported wait times of less than 10 minutes in the ED waiting room. While other patients (14.1%; n=12) waited 11–20 minutes and some waited (14.1%; n=12) more than two hours in the ED waiting room. Once in the ED, the patients (28.4%; n=23) reported that the nurses spent 0–10 minutes caring for them, while 27.2 % (n=22) reported that nurses spent 11–20 minutes with them and 24.7% (n=20) of patients reported that nurses spent 21–30 minutes with them. More than two thirds (70.9%; n=61) of the patient sample was triaged with an Emergency Severity Index (ESI) score of level 3 (considered Urgent) versus 29.1% (n=25) received a Level 4 score (considered Non-Urgent). Thus, the patient sample was considered Urgent versus Non-Urgent. ED triage report data (Staten Island University Hospital, 2014) during the time of data collection for this study also supports that the study sample was considered Urgent versus Non-Urgent. ED triage report data indicate that 45.7% (n=18466) of total ED patients (n=40395) were triaged level 3 and 45.9% (n=18532) of patients received a level 4 score. According to data from the NHAMCS (2010), 43.3% of US patients are triaged with an ESI score of Level 3 and 32.7% were scored a Level 4. Thus the triage scores of the ED population at large are fairly consistent with national data. These patient sample characteristics are displayed in Table 4.

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Table 4**Patient Sample Characteristics (n=86)**

Variable	n	%
Wait Time in ED Waiting Room ^a		
0–10 minutes	40	47.1
11–20 minutes	12	14.1
21–30 minutes	6	7.1
31–60 minutes	9	10.6
61–120 minutes	6	7.1
Greater than 121 minutes	12	14.1
<i>Missing 1</i>		
Time Spent by the Nurse with the Patient ^a		
0–10 minutes	23	28.4
11–20 minutes	22	27.2
21–30 minutes	20	24.7
31–60 minutes	11	13.6
Greater than 61 minutes	5	6.2
<i>Missing 5</i>		
Emergency Severity Index ^b		
Level 3 (Urgent)	61	70.9
Level 4 (Semi-Urgent)	25	29.1
Level 5 (Non-Urgent)		

^a reported by the patient^b triage score rated by the nurse

Major study variables. Table 5 shows the descriptive statistics for the major study variables of patients' perceptions of nurse caring behaviors, nurses' perceptions of nurse caring behaviors, dyad difference scores and patient satisfaction. The mean score on the Caring Behaviors Inventory-24 (CBI-24) Nurse Version (Wu, Larrabee, & Putnam, 2006) was 5.26 (SD=.48; MIN/MAX=4.04/6.00), and the mean score on

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the Caring Behaviors Inventory-24 (CBI-24) Patient version (Wu, Larrabee, & Putnam, 2006) was 5.58 (SD=.76; MIN/MAX=2.83/6.00). The mean dyad difference scores (patient CBI scores minus CBI nurse scores/Higher scores=Higher Patient Ratings) was -.32 (SD=.85; MIN/MAX=-3.07/2.46). The mean patient score on the PSI was 4.14 (SD=.58; MIN/MAX=2.44/4.84).

Table 5**Major Study Variables (n=86)**

Variable	n	Mean	SD	MIN/MAX	Potential Range
CBI NURSE	86	5.26	.48	4.04/6.00	1.00/6.00
CBI Patient	86	5.58	.76	2.83/6.00	1.00/6.00
Dyad difference Scores ^a	86	-.32	.85	-3.07/2.46	-5.00/5.00
PSI	86	4.14	.58	2.44/4.84	1.00/5.00

^a CBI Patient–CBI Nurse Score; Higher scores=Higher Patient Ratings

Prior to inferential analysis, data were prepared several ways. For example, data-cleaning procedures were employed to assure data were entered correctly (i.e., checking hard copies against entered values in SPSS) as well as insuring that only accurate values were incorporated. Additionally, checks for all assumptions of parametric testing were made, including linearity, multicollinearity, homoscedasticity, normality, and undue influence of outlier scores (Field, 2013). Normality was assessed by examining skewness and kurtosis of each distribution, and these showed all were within three times the standard error of the skewness and kurtosis, respectively (Wheeler & Chambers, 1994). The histogram for the data set showed a normal bell curve with symmetry to the right and left with well-behaved tails. Linearity was indicated with statistically significant ($p<.05$) correlations between the major study varia-

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bles (i.e., patients' perceptions of nurse caring behaviors and nurses' perceptions of nurse caring behaviors with patient satisfaction). Scatterplots showed a linear trend between the independent variables (patients' perceptions of nurse caring behaviors and nurses' perceptions of nurse caring behaviors) and the dependent variable of patient satisfaction. Multicollinearity was tested via the collinearity diagnostics function incorporated within the linear regression procedure within SPSS. The Variance Inflation Factor for each predictor was approximately one indicating no collinearity problems (Field, 2013). Homoscedasticity was examined through a scatterplot of residuals (ZPRED X ZRESID) within the regression model (Field, 2013). A random dispersion of residuals around the horizontal line indicated the presence of homoscedasticity; therefore, the assumptions were met to a reasonable degree and no data conversions were necessary for further analysis. Examining if outliers presented an undue influence on the analysis was not necessary as scores revealed that there no outliers scores (scores greater than 3 SD from the mean) within the distribution (Field, 2013). There were few missing data among descriptive characteristics and no data missing among the major study variables of caring behaviors and patient satisfaction. When study participants provided less than 20% of data for a study scale, the mean score of valid responses of descriptive characteristics was computed and used for analysis (Downey & King, 1998). An overall unit response rate of less than 80% would have required analysis of non-response bias (Office of Management & Budget, 2006); therefore, further analysis was not required and no cases were excluded due to missing data values.

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Analysis of the Research Questions

Question One. To answer the first question “What are the relationships between patients’ perceptions of nurse caring behaviors, nurses’ perceptions of nurse caring behaviors, and patient satisfaction in the Emergency Department?” the relationships between patients’ perceptions of nurse caring behaviors, nurses’ perceptions of nurse caring behaviors, and patient satisfaction in the Emergency Department were analyzed using a three-step process. The independent t-test and/or one-way ANOVA analysis of mean patient satisfaction scores and nurse demographic variables (i.e., age, gender, race, ethnicity, marital status, professional education, employment status, RN experience, and ED experience) and patient demographic variables (i.e., age, gender, race, ethnicity, marital status, education, employment status, previous ED visits, ED wait time, time spent by the nurse, and ESI) was conducted. Table 6 identifies the patient demographic variables that were related to patient satisfaction at a statistically significant ($p < .05$) level. Results revealed that PSI scores were inversely related to categories of dyad difference CBI scores at a statistically significant level, $F(2, 83) = 13.29, p < .001$. Bonferroni post-hoc analysis indicated that the mean PSI score was significantly lower for the nurses that rated themselves higher than patients rated them ($M = 3.38; SD = .52$), in comparison to the higher patient ($M = 4.31; SD = .46$) and comparable ($M = 4.17; SD = .54$) dyad difference groups. Bivariate analysis also indicated the dependent variable of PSI scores were not statistically associated with patient gender, $t(2) = 1.5, p = .128$; patient race $F(2, 70) = .44, p = .66$; patient ethnicity, $t(49) = -1.5, p = .13$; marital status, $F(5, 80) = 1.5, p = .19$; highest level of completed ed-

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education $F(7,78)=1.78, p=.13$; employment status $F(7, 78)=.38, p=.90$; previous ED visits, $t(33.97)=.71; p=.49$; and ESI, $F(1, 84)=.05, p=.83$.

Table 6**Independent-T-Test or One-Way ANOVA Analysis of Mean Patient Satisfaction****Scores and Patient Demographic Variables (n=86)**

Variable	n	Mean (SD)	t score/F(df)	p
CBI dyad difference scores			13.29 (2, 83)	.001*
Higher Patient Ratings	36	4.31 (.46)		
Comparable	40	4.17 (.54)		
Higher Nurse Ratings	10	3.38 (.52)		
Age			.58 (5, 80)	.72
18-19 Years	1	4.16		
20-29 Years	23	4.14 (.58)		
30-39 Years	19	4.01 (.62)		
40-49 Years	14	4.07 (.69)		
50-59 Years	15	4.16 (.58)		
60-69 Years	14	4.34 (.41)		
Gender			1.5/2	1.28
Male	28	4.0 (.67)		
Female	58	4.2 (.52)		
Race			.44 (2, 70)	.66
White/Caucasian	55	4.22 (.56)		
African American	15	4.07 (.57)		
Asian	3	4.26 (.53)		
Ethnicity			-1.5/.57 (49)	.13
Hispanic/Latino	21	4.00 (.59)		
Not Hispanic/Latino	30	4.23 (.52)		

*Bonferroni post hoc results indicated that mean PSI for higher patient and comparable were significantly higher than higher nurse ratings

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Table 6, continued**Independent-T-Test or One-Way ANOVA Analysis of Mean Patient Satisfaction****Scores and Patient Demographic Variables (n=86)**

Variable	n	Mean (SD)	t score/F(df)	p
Marital Status			1.5 (5, 80)	.19
Single	33	4.10 (.56)		
Married	39	4.21 (.56)		
Divorced	7	4.21 (.64)		
Widowed	2	3.72 (.96)		
Separated	4	4.06 (.48)		
Highest Level of Education			1.78 (5, 80)	.13
Less than High School	4	3.86 (.58)		
High School Graduate	26	4.15 (.57)		
Some College	29	3.95 (.59)		
College Graduate	16	4.34 (.56)		
Graduate School	9	4.41 (.48)		
Vocational Training	2	4.38 (.42)		
Employment Status			38 (7, 78)	.90
Work Full Time (37.5 hours+)	40	4.13 (.55)		
Works Part-Time (<37.5hours)	10	4.15 (.40)		
Full time homemaker	6	4.03 (.76)		
Unable to work due to injury/illness	8	4.05 (.89)		
Retired	12	4.32 (.43)		
Unemployed	7	4.11 (.78)		
Other	2	3.78 (.42)		
Previous Emergency Department Visits			.71 (33.97)	.49
Yes	59	4.17 (.50)		
No	25	4.06 (.73)		

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Table 6, continued**Independent-T-Test or One-Way ANOVA Analysis of Mean Patient Satisfaction****Scores and Patient Demographic Variables (n=86)**

Variable	n	Mean (SD)	t score/F(df)	p
Wait Time in ED Waiting Room ^a			.46 (5, 79)	.81
0–10 minutes	40	4.14 (.62)		
11–20 minutes	12	4.10 (.57)		
21–30 minutes	6	4.06 (.48)		
31–60 minutes	9	4.14 (.60)		
61–120 minutes	6	4.43 (.43)		
Greater than 121 minutes	12	4.00 (.61)		
Time Spent with the patient by the Nurse ^a			.54 (4, 76)	.71
0–10 minutes	23	4.06 (.56)		
11–20 minute	22	4.29 (.57)		
21–30 minutes	20	4.10 (.62)		
31–60 minutes	11	4.08 (.66)		
Greater than 61 minutes	5	4.23 (.51)		
Emergency Severity Index ^b			.05 (1, 84)	.83
Level 3 (Urgent)	61	4.13 (.58)		
Level 4 (Semi-Urgent)	25	4.16 (.59)		
Level 5 (Non-Urgent)	0			

^a reported by the patient^b rated by the nurse

Table 7 identifies the nurse demographic variables that were related to patient satisfaction at a statistically significant ($p < .05$) level. Results revealed that PSI scores were inversely related to categories of dyad difference CBI scores at a statistically significant level, $F(2, 83) = 13.29, p < .001$. Bonferroni post-hoc analysis indicated that the mean PSI score was significantly lower for the higher nurse rating group ($M = 3.38$;

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SD=.52), in comparison to the higher patient rating group (M=4.31; SD=.46) and comparable (M=4.17; SD=.54) dyad difference groups. Bivariate analysis indicated the PSI scores were not statistically associated with nurse gender, $t(84)=.22, p=.35$; nurse experience, $F(2, 82)=2.22, p=.12$, nurse employment status, $t(83)=-.40, p=.69$; nurse race, $F(2, 80)=1.59, p=.21$; nurse ethnicity $t(80)=-.91, p=.48$; nurse marital status $F(4, 80)=.378, p=.82$; ED experience, $F(2, 82)=1.79, p=.17$; or nurse professional education $F(3, 80)=2.68, p=.053$.

Table 7

Independent-T-Test and One-Way ANOVA Analysis of Mean Patient Satisfaction Scores and Nurse Demographic Variables (n=86)

Variable	n	Mean (SD)	t score/F(df)	p
CBI dyad difference scores			13.29 (2, 83)	.001*
Higher Patient Ratings	36	4.31 (.46)		
Comparable	40	4.17 (.54)		
Higher Nurse Ratings	10	3.38 (.52)		
Age			.83 (4, 80)	.51
20–29 Years	31	4.01 (.54)		
30–39 Years	27	4.17 (.56)		
40–49 Years	17	4.27 (.62)		
50–59 Years	7	4.30 (.63)		
60–69 Years	2	3.94 (1.27)		
Gender			.22 (84)	.35
Male	14	4.17 (.49)		
Female	72	4.13 (.60)		

* Bonferroni post hoc results indicated that mean PSI for higher patient and comparable were significantly higher than higher nurse ratings

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Table 7, continued**Independent-T-Test and One-Way ANOVA Analysis of Mean Patient****Satisfaction Scores and Nurse Demographic Variables (n=86)**

Variable	n	Mean (SD)	t score/F(df)	p
Race			1.59 (2, 80)	.21
White/Caucasian	66	4.14 (.53)		
African American	7	4.47 (.37)		
Other	10	3.98 (.83)		
Ethnicity			-.91/.51 (80)	.48
Hispanic/Latino	4	3.88 (.84)		
Not Hispanic/Latino	78	4.15 (.58)		
Marital Status			.378 (4, 80)	.82
Single	38	4.07 (.53)		
Married	36	4.16 (.63)		
Divorced	9	4.29 (.61)		
Widowed	1	3.92		
Separated	1	3.92		
Professional Education			2.68 (3, 80)	.053
Diploma Graduate	3	3.72 (.57)		
Associates Degree	36	4.33 (.51)		
Bachelor's Degree in Nursing	41	4.02 (.59)		
Master's Degree in Nursing	4	4.33 (.57)		
RN Experience			2.22 (2, 82)	.12
New Graduate to 5 Years	49	4.05 (.52)		
6-15	24	4.34 (.53)		
Greater than 15	12	4.04 (.79)		
ED Experience			1.79 (2, 82)	.17
New graduate-5 years	61	4.07 (.58)		
6-15 years	16	4.38 (.50)		
Greater than 16 years	8	4.16 (.71)		

Table 7, continued**Independent T-Test and One-Way ANOVA Analysis of Mean Patient****Satisfaction Scores and Nurse Demographic Variables (n=86)**

Variable	n	Mean (SD)	t score/F(df)	p
Employment Status				
Full time	69	4.12 (.58)	-.40 (83)	.69
Part time	16	4.20 (.55)		

Based on the current literature, the continuous study variables (ie, nurse age, patient age, time spent with patient, and ED wait time) were included in the Pearson's *r* correlation analysis with patient satisfaction as part of the bivariate analyses. Analysis indicated that PSI scores were statistically significant and moderately correlated with nurse age, $r(84) = .24, p < .05$. However, PSI score correlations were weak and did not reach statistical significance for patient age, time spent by the nurse with the patient, or wait time in ED waiting room. The results are depicted in Table 8.

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Table 8**Pearson's r Correlation of Mean Patient Satisfaction Scores and Study****Variables (n=86)**

Variable	1	2	3	4	5
1. Patient satisfaction	--	.24*	.11	.01	-.06
2. Nurse age		--	.01	-.13	-.06
3. Patient age			--	-.17	-.10
4. Time Spent with Patient				--	.11
5. Time Spent in Waiting Room					--

* $p < .05$

Third, a multiple linear regression model was used to identify which study variable was the strongest predictor of patient satisfaction. A regression model was built with the continuous study variable (i.e., nurse age) based on a statistically significant relationship at the bivariate/correlation level with patient satisfaction. Table 9 represents the multiple regression analysis explaining patient satisfaction scores. Analysis indicated that the overall model was statistically significant, $F(84)=9.80$, $p < .001$, $R^2 = .27$. At the multivariate level, nurse age was no longer statistically significant to PSI scores ($B = .01$; $SE = .01$; $\beta = .16$; $p = .11$). However, the dyad difference in CBI scores was related to PSI scores at a statistically significant level. Specifically, with reference to comparable dyad difference scores, the group with higher nurse CBI scores was negatively associated with PSI scores ($B = -.74$; $SE = .18$; $\beta = -.41$; $p < .001$). With reference to comparable dyad group difference scores, the group with higher patient CBI scores was no longer associated with PSI scores ($B = .41$; $SE = .12$; $\beta = .12$; $p = .12$). Therefore, the patients in the group with higher nurse rated caring be-

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haviors reported less satisfaction than the groups with comparable and higher rated patient caring behaviors.

Table 9**Multiple regression explaining patient satisfaction scores (n=86)**

Variable	B (SE)	β	p
Nurse age	.01 (.01)	.16	.11
Comparable Group Difference Scores (Reference)			
Higher nurse ratings	-.74 (.18)	-.41	.001
Higher patient ratings	.41 (.12)	.12	.24

Model= $F(84)=9.80$, $p<.001$. $R^2=.27$.

Table 10 depicts the mean scores of the PSI subscales as rated by the patient sample. The Trust subscale was rated highest by patients.

Table 10**Mean Scores Patient Satisfaction Instrument (PSI) Subscales**

Scale	Mean (SD)	MIN/MAX	Scale
Educational	4.19 (.68)	2.43/5.0	1–5
Trust	4.28 (.63)	2.64/5.0	1–5
Professional	3.56 (.39)	1.86/4.14	1–5

Analysis of the Research Questions. The first three research sub-questions investigated the independent study variables of patients' perceptions of nurse caring behaviors, nurses' perceptions of nurse caring behaviors, and whether differences were evident among the nurse sample and patient sample in the ED in this study. The next two

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sub-questions investigated the dependent variable of patient satisfaction and its relationship to the nurses' and patients' perceptions of nurse caring behaviors.

Research sub-question one. To answer the first sub-question "What are patients' perceptions of nurse caring behaviors in the Emergency Department?" the following analysis was performed. Nurse caring behaviors as perceived by the patient were measured using the Caring Behaviors Inventory-24 (CBI-24) Patient Version (Wu, Larrabee, & Putnam, 2006). The CBI-24 is a 24-item instrument where items are measured on a 1 (never)- to 6 (always)-point Likert-type scale. The scale is computed by taking the mean score of all 24 items, creating a total score range of 1–6 with higher scores reflecting greater nurse caring behaviors as rated by the patients. For the current study, the instrument reflected an excellent level of internal consistency (Cronbach's $\alpha = .94$). The mean score on the Caring Behaviors Inventory-24 (CBI-24) Patient version (Wu, Larrabee, & Putnam, 2006) was 5.58 (SD=.76; MIN/MAX=2.83/6.00). The higher the mean score on the individual CBI items, the greater the perception of caring is rated by patients. Generally, in this study there was an overall positive perception of nurse caring as rated by the patients with a Mean score of 5.58 based on a six-point Likert scale.

Research sub-question two. To answer the second research sub-question "What are nurses' perceptions of nurse caring behaviors in the Emergency Department?" the following analysis was performed. Nurse caring behaviors as perceived by the nurse were measured using the Caring Behaviors Inventory-24 (CBI-24) Nurse Version (Wu, Larrabee, & Putnam, 2006). The CBI-24 is a 24-item instrument where items

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are measured on a 1 (never)- to 6 (always)-point Likert-type scale. The scale is computed by taking the mean score of all 24 items, creating a total score range of 1–6 with higher scores reflecting greater nurse caring behaviors as rated by the nurses. For the current study, the instrument reflected an excellent level of internal consistency (Cronbach's alpha= .94). The mean score on the Caring Behaviors Inventory-24 (CBI-24) Nurse Version (Wu, Larrabee, & Putnam, 2006) was 5.26 (SD=.48; MIN/MAX=4.04/6.00). The higher the mean score on the total and individual CBI items, the greater the perception of caring is perceived by the nurses. In general, there was an overall positive perception of caring as rated by the nurses (M=5.26).

Research sub-question three. To answer the third research sub-question “What is the difference between nurses’ perceptions of nurse caring behaviors and patients’ perceptions of nurse caring behaviors in the Emergency Department?” the following tests were performed. Nurses and patients were studied as dyads. Patients rated the nurse caring behaviors of the nurses who cared for them while in the ED on the day of patient data collection. Nurses rated their caring behaviors based on care that they deliver each day to their patients. The difference between the two scores was identified as dyad difference scores reflecting nurse caring behaviors as perceived by patients and nurses. Difference scores reflecting nurse caring behaviors as perceived by patients and nurses were computed by subtracting total mean CBI-2424 nurse scores from total mean CBI-2424 patient scores. The scores subtracted reflected nurse-patient dyads’ experiences where patients rated the nurses who provided care to them. The range of difference scores was categorized into three groups. The first group re-

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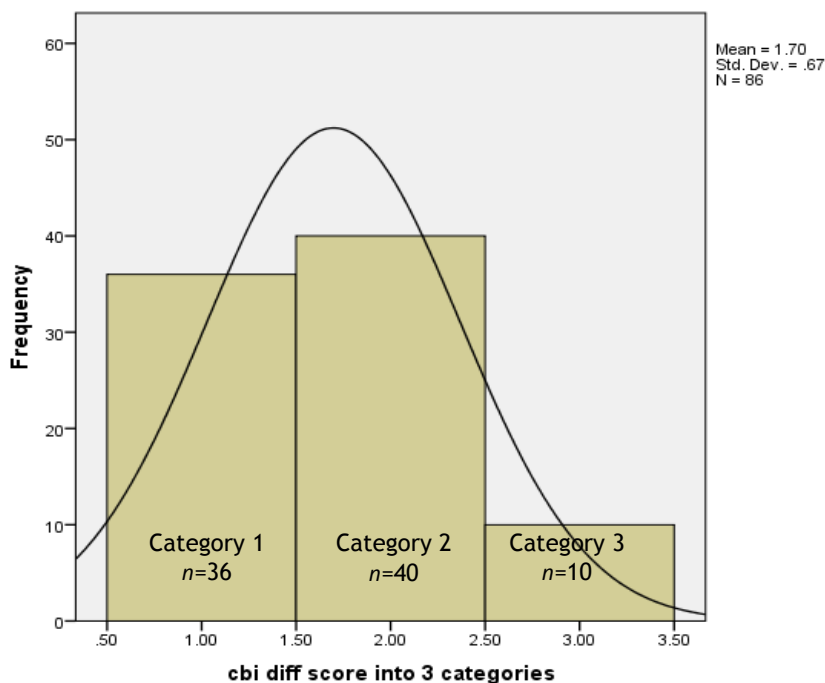
flected scores where the patients rated the nurse caring behaviors higher than the nurses rated their caring behaviors. This group was defined as difference scores that fell at $-.5$ or more negative standard deviations below the mean difference score. The second group reflected scores where the patients and nurses rated nurse caring behaviors comparably. This group was defined as difference scores that fell within $-.49$ to $.49$ SD of the mean difference score. The third group reflected scores where the nurses rated their nurse caring behaviors higher than the patients rated the nurses. This group was defined as difference scores falling $.5$ or more standard deviations above the mean difference score. Table 11 displays the dyad difference scores with the total number of nurse/patient dyads in each group as well as the mean and standard deviation for dyad difference CBI scores.

Table 11**Dyad Difference Scores**

Group	n	Mean (SD)
1. Higher patient ratings	36	4.31(.46)
2. Comparable scores	40	4.17 (.54)
3. Higher nurse ratings	10	3.38 (.58)

Figure 1 represents the frequencies and the normal curve for the three categories of CBI difference scores for the 86 nurse/patient dyads.

Figure 1 CBI Dyad difference scores categorized into 3 categories.



Additional differences were noted between nurses' perceptions of nurse caring behaviors and patients' perceptions of nurse caring behaviors in the Emergency Department on the subscales of the CBI-24. The CBI-24 (Wu, Larrabee, & Putnam, 2006) has four subscales called assurance, knowledge and skill, respectfulness, and connectedness. The subscales are representative of different nurse caring behaviors. The difference between the nurse and patient samples was statistically significant for the subscales of assurance and connectedness. Table 12 depicts the differences between nurses and patients perceptions of nurse caring behaviors on the CBI-24 subscales.

Table 12**Analysis of Caring Behaviors Inventory-24 (CBI-24) Subscales****Mean Scores for CBI Subscales:**

Scale	Mean	Range	Scale	t	p
Assurance					
Nurse	5.18 (.55)	3.63–6.00	1–6	-3.85	.000*
Patient	5.50 (.72)	3.00–6.00	1–6		
Knowledge and Skill					
Nurse	5.70 (.40)	3.00–6.00	1–6	-.486	.40
Patient	5.83 (1.46)	3.00–6.00	1–6		
Respectfulness					
Nurse	5.34 (.56)	3.50–6.00	1–6	-2.27	.026
Patient	5.56 (.76)	2.80–6.00	1–6		
Connectedness					
Nurse	4.88 (.72)	3.00–6.00	1–6	-4.59	.000*
Patient	5.40 (.88)	2.20–6.00	1–6		

*p<.001

Research sub-question four. To answer the fourth research sub-question “What is the relationship between patients’ perceptions of nurse caring behaviors and patient satisfaction in the Emergency Department?” the following tests were performed. Patients’ perceptions of nurse caring behaviors were measured using the Caring Behaviors Inventory-24 (CBI-24) Patient Version (Wu, Larrabee, & Putnam, 2006). The mean score on the Caring Behaviors Inventory-24 (CBI-24) Patient version (Wu, Larrabee, & Putnam, 2006) was 5.58 (SD=.76; MIN/MAX=2.83/6.00). The higher the CBI-24 mean score, the greater the perception of caring was rated by patients. Patient satisfaction with nursing care was measured using the Patient

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Satisfaction Instrument (PSI) (Hinshaw & Atwood, 1982) that measures satisfaction across three dimensions: the technical-professional dimension, the interpersonal-educational dimension, and the interpersonal-trusting relationship dimension (Risser, 1975). The mean patient score on the PSI was 4.14 (SD=.58; MIN/MAX=2.44/4.84). This question was addressed by the use of a t-test, analysis of variance (ANOVA), and a Pearson's correlation. The t-test and ANOVA were used for the patient demographic variables (age, gender, race, ethnicity, marital status, education, employment status, previous ED visits, ED wait time, time spent by the nurse, and ESI). The Pearson's correlation was conducted for the continuous variables (e.g., nurse age, patient age, time spent with patient and ED wait time). Analysis indicated that PSI scores were statistically significant and moderately correlated with nurse age, $r(84)=.24$, $p<.05$. However, PSI score correlations were weak and did not reach statistical significance for patient age, time spent by the nurse with the patient, or wait time in ED waiting room. Bivariate analysis also indicated the PSI scores were not statistically associated with patient gender, $t(2)=1.5$, $p=.1.28$; patient race $F(2,70)=.44$, $p=.66$; patient ethnicity, $t(49)=-1.5$, $p=.13$; marital status, $F(5, 80)=1.5$, $p=.19$; highest level of completed education, $F(7,78)=1.78$, $p=.13$; employment status, $F(7, 78)=.38$, $p=.90$; previous ED visits, $t(33.97)=.71$; $p=.49$; and ESI, $F(1, 84)=.05$, $p=.83$.

Research sub-question five. To answer the fifth research sub-question "What is the relationship between nurses' perceptions of nurse caring behaviors and patient satisfaction in the Emergency Department?" several tests were performed. Nurses' perceptions of nurse caring behaviors were measured using the Caring Behaviors In-

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ventory-24 (CBI-24) Nurse Version (Wu, Larrabee, & Putnam, 2006). The mean score on the Caring Behaviors Inventory-24 (CBI-24) Nurse version (Wu, Larrabee, & Putnam, 2006) was 5.26 (SD=.48; MIN/MAX=4.04/6.00). The higher the CBI-24 mean score, the greater the perception of caring was rated by the nurses. Patient satisfaction with nursing care was measured using the Patient Satisfaction Instrument (PSI) (Hinshaw & Atwood, 1982) that measures satisfaction across three dimensions: the technical-professional dimension, the interpersonal-educational dimension, and the interpersonal-trusting relationship dimension (Risser, 1975). The mean patient score on the PSI was 4.14 (SD=.58; MIN/MAX=2.44/4.84). This question was addressed by the use of a t-test, analysis of variance (ANOVA) and a Pearson's correlation. The t-test and ANOVA were used for the nurse demographic variables (e.g., age, gender, race, ethnicity, marital status, professional education, employment status, RN experience, and ED experience). Pearson's correlation was used for the continuous variables (e.g., nurse age, patient age, time spent with patient and ED wait time). Analysis indicated that PSI scores were statistically significant and had a small to moderate correlation with nurse age, $r(84) = .24, p < .05$.

Results revealed that PSI scores were inversely related to categories of dyad difference CBI scores at a statistically significant level, $F(2, 83) = 13.29, p < .001$. Bonferroni post-hoc analysis indicated that the mean PSI score was significantly lower for the higher nurse rating group (M=3.38; SD=.52), in comparison to the higher patient (M=4.31; SD=.46) and comparable (M=4.17; SD=.54) dyad difference groups. Bivariate analysis also indicated the PSI scores were not statistically associated for nurse

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gender, $t(84) = .22, p = .35$; nurse experience, $F(2, 82) = 2.22, p = .12$; nurse employment status, $t(83) = -.40, p = .69$; nurse race, $F(2, 80) = 1.59, p = .21$; nurse ethnicity $t(80) = -.91, p = .48$; nurse marital status $F(4, 80) = .378, p = .82$; ED experience, $F(2, 82) = 1.79, p = .17$; or nurse professional education $F(3, 80) = 2.68, p = .053$.

Hypothesis. The hypothesis of the study was that there would be a positive relationship between patients' perceptions of nurse caring behaviors and patient satisfaction in the Emergency Department. The analysis of data from this study supported the hypothesis that there was a positive relationship between patient's perceptions of nurse caring behaviors and patient satisfaction. This was apparent within two groups (higher patient rating group and comparable group) of the dyad difference scores. However, there was a statistically significant but negatively associated relationship with patient satisfaction for the group of higher nurse dyad difference scores and patient satisfaction. Patients reported less satisfaction when nurses rated themselves more caring than patients rated them ($B = -.74; SE = .18; \beta = -.41; p < .001$).

Comments from nurse participants. Eighty-one nurse participants (80%) provided multiple written comments to an optional open-ended question that asked "Are you able to care for your patients in the Emergency Department as you would like to?" A box for Yes or No followed. The nurses were further prompted to answer: "Why or Why not?" Some nurses responded yes and no ($n = 5$). Answers to the "Yes/No" questions yielded approximately 20% ($n = 16$) "Yes" answers. These comments described preferred optimal nurse caring conditions. These included: "if they had staff"; "if the ED wasn't overcrowded and had adequate nurse/patient ratios";

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“worked as a team”; “my skills, experience, and strong leadership are key to nursing care”; “they had supplies”; “not holding patients”; “provide bedside care and education then document later.”

There also were 65 “No” responses to this optional question. The many comments of the factors supporting /impeding nurses’ optimal caring behaviors are summarized by categories and percentages in Table 13 with supporting examples of comments.

Table 13 Comments from Nurse Participants

Factors	%	Supporting Comments
Factors Impeding Nurse Caring Behaviors		
ED overcrowding	43.0%	“We have too many patients.” “The nurse/patient ratio is very high.” “Patient acuity is too high.” “The ED is overcrowded.” “At any time we can have over 130 patients in the ED.”
Staffing Issues	37.0%	“Not enough RN staff.” “Not enough patient care assistants.” “There are not enough medical providers.”
Equipment issues	23.0%	“Not enough equipment or it’s broken.” “Equipment is outdated.”
Time	23.0 %	“There is not enough time to care for your patients.”

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Table 13, continued**Comments from Nurse Participants**

Factors	%	Supporting Comments
Privacy	9.0%	“We have to complete tasks that take us away from the bedside.” “There is no time to have an actual conversation with a patient.” “There is no privacy—HIPPA.” “We have to talk about personal things in the hallway.” “We give bedpans in the hall way.”
Factors Supporting Nurse Caring Behaviors		
Personal Satisfaction	6.0 %	“We see immediate results—that are very satisfying.” “I love the ED.” “I do my best to meet the needs of all my patients.” “As an RN you always want to do more.”
Team work	3.7%	“At night we work as a team, we like each other.” “We rely on one another.”
Staffing	1.5%	“When the unit is staffed, I can care for my patients as I would like to.”

The comments from this study indicated environmental/organizational factors impede optimal nurse caring and were supported by the findings in previous literature (Blank et. al., 2014; Johansen, 2014). Blank et al., (2014) surveyed 50 nurse/patient pairs assessing for three nurse caring attributes (friendliness, comfort measures, and information sharing) with opportunities to comment on these attributes. Comments from the ED nurses were categorized into satisfaction with care, roadblocks to care,

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and suggestions for improvement. Many of the comments from participants in Blank et al.'s (2014) study were similar to the comments from this study and that patients rated the nurses higher than the nurses rated themselves on all three attributes. Additionally, Johansen (2014) found very similar results in her study and reported staffing levels were a concern as well as high patient acuity and limited available resources.

Comments from patient participants. Thirteen patient participants (15%) provided comments to an optional open-ended question on the Patient Satisfaction Instrument (PSI) that prompted patients to "Please feel free to add other comments about your nursing care." There were 10 patients who responded with positive comments; one patient rated the nursing care and two patients made negative comments. Positive comments included: "Very pleasant staff"; "Great nurses"; "I had a wonderful experience today"; "All the nurses were very attentive and caring and did the best to their ability"; "I love this hospital, I had my baby here"; "Today my nurse was wonderful with helping me"; "My nurse was very kind, pleasant and attentive"; "It was great"; "Very thorough—excellent"; "She is very sweet and she took her time with me, she was an outstanding nurse. She's the best"; "It was an amazing experience, everyone was so kind and caring"; "Wonderful—fast ER visit". One comment rated the care "fair treatment with care." The two negative comments included: "My nurse forgot to pick up my urine sample, my husband had to find someone else to give it to" and "I feel there was very little interaction with the nurse, most of these questions did not apply." In addition to nurse personal characteristics, these participants seem to value care that is attentive, patient/kind, adequate in time spent with

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them, and may be influenced by past experience with the hospital. Given that this was only a small sample who responded, these areas need further future study. Patient participants in Blank et al.'s (2014) also responded with similar comments: "Staff is just fine" "Very good experience" "Stretchers are uncomfortable" "Shorter wait time" p.320. It seems that both patients and nurses recognize that the nurse/patient relationship is a primary component of ED nursing care.

Summary

This study examined nurses' perceptions of nurse caring behaviors, patients' perceptions of nurse caring behaviors and patient satisfaction in the Emergency Department. A descriptive cross-sectional design was applied using the Caring Behaviors Inventory-24 (CBI-24) Nurse and Patient Version (Wu, Larrabee, & Putnam, 2006) and the Patient Satisfaction Instrument (PSI) (Hinshaw & Atwood, 1982). The average nurse in this sample was 36 years of age, female, and worked full time. The average patient in this sample was 42 years of age, female, and worked full time. Patient satisfaction was statistically significant and negatively associated ($\beta = -.41$; $p < .001$) for the categories of CBI dyad difference scores for the group of nurses that rated themselves more caring than patients ratings of the nurses. Patient satisfaction scores were not statistically significant for nurse gender, marital status, ethnicity, professional education, employment status or ED experience. With regard to patient sample characteristics, no statistical significance was detected for patient satisfaction scores in relation to patient gender, race, ethnicity, marital status, highest level of education, employment status, previous ED visits, and Emergency Severity Index. Ad-

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ditionally, there were statistically significant differences ($p < .001$) between nurses' and patients' perceptions on the assurance and connectedness subscales of the CBI.

Anecdotal comments from nurse and patient participants suggest that they recognize and value the importance of the nurse/patient relationship in the ED. Patients appreciate the caring behaviors that nurses demonstrate to them, while also recognizing that they are often doing their best in the less than optimally supportive environment. Watson (1985) reminds us that the provision of a supportive/protective environment guides nursing actions and promotes the interpersonal relationship between the nurse and the patient. On the other hand, nurses acknowledge that they are in a situation where they are not always able to deliver optimal care. They also recognize that many of these situations may be out of their control.

Chapter V

DISCUSSION OF FINDINGS

The discussion of the findings will be presented in the following manner. The research question and sub-questions will be used to identify the significant findings of the study. The results will be assessed with the empirical literature of nurse caring behaviors as it relates to the association between nurse caring behaviors and patient satisfaction. Additionally, the findings will be linked to Jean Watson's theory of human caring, the conceptual model for this study.

Discussion of the Research Questions

Research question one. The first question "What are the relationships between patients' perceptions of nurse caring behaviors, nurses' perceptions of nurse caring behaviors and patient satisfaction in the Emergency Department?" indicated that there was a positive relationship between patients' perceptions of nurse caring behaviors and nurses' perceptions of nurse caring behaviors and patient satisfaction. Within this answer, results also indicated that higher nurse caring scores versus patient caring rating scores (n=10) was statistically significant and negatively associated with patient satisfaction (<.001). Patients and nurses were recruited in dyads. Patients' and nurses' perceptions of caring behaviors were measured using the Caring Behaviors Inventory-24 (CBI-24) (Wu, Larrabee, & Putnam, 2006). The difference between the nurse and patient scores was called Dyad Difference Scores. The dyad difference scores were computed by subtracting total CBI-24 nurse scores from total

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CBI-24 patient scores. The range of difference scores was categorized into three groups. The first group (n=36) had higher patient caring scores versus nurses' caring scores. The second group (n=40) had comparable nurse and patient caring scores. As stated above, the third group (n=10) had higher nurse caring scores versus patient caring scores. This third dyad difference group mean score was statistically significant and negatively associated with patient satisfaction ($<.001$).

For patient satisfaction, the group mean PSI score ($M=3.38$; $SD=.52$) indicated that when ED nurses rated their caring behaviors higher than patients, patient satisfaction was significantly lower as compared to the other two dyads (comparable and lower rating groups). Patient satisfaction was measured using the Patient Satisfaction Instrument (PSI). The PSI measured satisfaction across 25 items. Statistical analyses revealed that PSI scores were related to categories of dyad difference CBI scores at a statistically significant level, $F(2, 83)=13.29$, $p<.001$. Bonferroni post-hoc analysis indicated that the mean PSI score was significantly lower for the higher nurse rating group ($M=3.38$; $SD=.52$), in comparison to the higher patient ($M=4.31$; $SD=.46$) and comparable ($M=4.17$; $SD=.54$) dyad difference groups. A regression model was built with the continuous study variable (ie., nurse age) based on a statistically significant relationship at the bivariate/correlation level with patient satisfaction. When the multiple regression analysis was conducted to explain patient satisfaction scores, it indicated that the overall model $F(84)=9.80$; $p<.001$; $R^2=.27$ was statistically significant for patient satisfaction. Therefore, 27% of the variance in patient satisfaction was explained by the variable dyad difference scores in the regression model.

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Nurse/patient dyads were used to examine the interpersonal relationship between the nurse and patient in the ED. Previous nurse researchers (Chang, Lin, Chang, & Lin, 2005; von Essen & Sjoden, 2003; Widmark-Petersen, von Essen, & Sjoden, 2000) have studied nurse/patient dyads using the CARE-Q instrument (Larsen, 1984) primarily in Oncology units. These studies provided early evidence of similarities and differences in patients' and nurses' perceptions of caring. These similarities and differences in perceptions of nurse caring behaviors were most often reported in the technical/competent skills versus the communication/emotional aspects of caring. To the best of my knowledge, this study is the first to use nurse/patient dyads measuring caring behaviors in the ED with the CBI-24. The purpose in using dyads was to reveal the interpersonal relationship between the nurse and patient, as opposed to surveying nurses and patients separately. Larson et al. (1998) suggest that using a dyad design permits a comparison between nurse/patient pairs that removes some confounding factors such as multiple nurses caring for the same patient, nurses caring for patients on different days or shifts, and surveys answered days after care was received. This study added further evidence confirming the existence of the interpersonal relationship and its influence on patient satisfaction with the ED experience. Findings indicated that when the dyad group of nurses that rated their caring behaviors higher than patients, patients reported lower levels of satisfaction with nurse caring. This small dyad of nurses and patients (n=10) were further examined for specific demographic characteristics that differentiated them from the other two dyads. The one noted difference was that eight out of the 10 nurse participants were new

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graduates with less than 5 years of nursing and ED experience. Reported nurse mean CBI scores ranged from 4.58–6.00 and patient mean CBI scores ranged from 2.83–5.39. The mean PSI scores ranged from 2.44–4.08. This finding may suggest that patients in this dyad were able to discern the inexperience or lack of confidence within these nurses, which may have explained lower levels of satisfaction. Additionally three of ten patients in the dyads waited in the ED more than three hours, which may also account for reported lower levels of patient satisfaction.

The interpersonal relationship between patients and nurses has been a basic tenet of Watson's theory of human caring. Watson (1979, 1985, 2008) posits that caring is an interpersonal process that takes place between two people, the nurse providing care and the patient who is the recipient of care. In addition, using the CBI-24 (Wu, Larabee, & Putnam, 2006) provided the conceptual congruency with Watson's theory of human caring (1979, 1985, 2008). In previous studies (Elder et al., 2004; Larrabee et al., 2004; Palese et al., 2011; Rafii, Hajinezhad, & Haghani, 2008; Wolf, Colahan, Costello, Warwick, Ambrose, & Giardino, 1998; Wolf, Miller, & Devine, 2003; Yeakel, Maljanian, Bohannon, & Coulombe, 2003), patients reported high levels of patient satisfaction with nurse caring behaviors. There were statistically significant positive correlations of patients' ratings of nurse caring with patient satisfaction. In the current study, a majority (n=76) of patients also reported high levels of patient satisfaction. This group of patients rated caring higher (M=4.31) or comparably to nurses (M=4.17) on a scale of 1–6. However, in contrast to the previously cited studies, there was a group of patients (n=10) in this study who rated satisfaction signifi-

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cantly lower for higher nurse-rated caring behaviors ($M=3.38$). For this group, nurses rated their caring behaviors higher than patients rated their caring behaviors. The satisfaction score (PSI) was negatively associated and statistically significant ($p<.001$) for this dyad group.

In contrast, patient satisfaction with nursing care studied by Davis and Duffy (1999) found no relationship between nurse caring and individual patient satisfaction in the ED. Their descriptive study examined patient satisfaction in rural and urban EDs. Although patients ($n=103$) reported satisfaction with nurses' teaching behaviors ($p=.017$), there were no other statistically significant associations with patient satisfaction reported for separately analyzed nurse and patient demographic variables. Chan and Chau (2005), on the other hand, reported a statistically significant relationship ($p=.001$) for individual patient's age and satisfaction with ED nursing triage in Hong Kong.

In the current study, t-tests and ANOVAs for the nurse demographic variables (e.g., gender, nurse experience, nurse employment status, nurse race, nurse ethnicity, nurse marital status, ED experience, or nurse professional education) and patient demographic variables (e.g., age, gender, race, ethnicity, marital status, education, employment status, previous ED visits, ED wait time, time spent by the nurse, and ESI) and patient satisfaction were conducted. None of these variables were related to patient satisfaction. Previous findings have been inconsistent in non-ED studies. For example, Wolf et al. (2003) reported no statistically significant differences with nurse caring and patient satisfaction by patient gender in the Cardiac Catheterization

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department. However, Raffi et al. (2008) reported there were statistically significant differences ($p=.003$) for nurse caring and patient satisfaction for male patients and those that had a previous hospital admission.

The Pearson's r correlation of mean patient satisfaction scores (PSI scores) and the continuous study variables (nurse age, patient age, time spent by the nurse with the patient, or wait time in ED) for this study indicated that PSI scores were significantly and positively correlated with nurse age, $r(84)=.24, p<.05$, while PSI scores were not significant for patient age, time spent by the nurse with the patient, or wait time in ED waiting room. The correlation with nurse age may suggest that patients valued that the nurse was more mature, self-confident and knowledgeable. Wysong and Driver (2009) report patients considered nurses skilled when they displayed confidence in the care they give patients. Patiraki et al. (2012) reported that the older the nurse was, the caring behaviors were rated higher by patients on the CBI subscale respectfulness. Additional research is needed to clarify and explore nurses' personal characteristics and the correlation with caring and patient satisfaction. Alhusban and Abualrub (2009) reported they found no significant correlations between patients' age, length of stay and level of education with satisfaction with nursing care in Medical, Surgical, and Gynecological units in Jordan.

In this current study, patient satisfaction was measured using the PSI, which uses three dimensions of satisfaction: the technical-professional dimension ($\alpha=.786$); the interpersonal-educational dimension ($\alpha=.784$); and the interpersonal-trusting relationship dimension ($\alpha=.876$) (Risser, 1975). The three dimensions demonstrated

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strong alphas: the technical-professional dimension ($\alpha=.878$); the interpersonal-educational dimension ($\alpha=.858$); and the interpersonal-trusting relationship dimension ($\alpha=.817$). The interpersonal trusting relationship dimension was rated highest among the patients in this study. This is consistent with previous findings from other studies (Rafii, Hajinezhad, & Haghani, 2008; Wolf, Colahan, Costello, Warwick, Ambrose, & Giardino, 1998; Wolf, Miller, & Devine, 2003) that reported the interpersonal trusting relationship was rated most highly among patients and may be a significant factor in the nurse/patient relationship. The interpersonal trusting subscale describes characteristics of a “comfortable and constructive nurse interaction and communication aspects” in the nurse patient relationship (Hinshaw & Atwood, 1982). The significance of this finding supports the premise that a trusting nurse patient relationship exists within the nurse/patient ED dyads in this study. The significance of the trusting relationship with nursing has been recognized yearly in nationwide surveys. Since 2005, over 80% of Americans have listed nursing as the most trustworthy profession (Gallup poll, 2014). In summary, this ED study supports findings from previous literature that nurse caring behaviors are positively associated with patient satisfaction with nursing care.

Research sub-question one. The first sub-question “What are patients’ perceptions of nurse caring behaviors in the Emergency Department?” indicated there was an overall positive perception of nurse caring as rated by the patients in this study with a mean score of 5.58 ($SD=.76$) based on a 1–6-point Likert scale using the Caring Behaviors Inventory-24 (CBI-24) Patient Version (Wu, Larrabee, & Putnam,

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2006). The patient sample in this study included 86 adult patients who were recruited from both EDs based on the inclusion and exclusion criteria. Patients were between the ages of 18 and 69 years, arrived in the Emergency Department with a non-life threatening condition and were triaged with an Emergency Severity Index (ESI) of level 3, 4 or 5 as rated by the nurse. These patients were cared for by the same Emergency Department nurse from the time of arrival in the ED to discharge from the ED on the day of data collection. Of the patients in the sample, more than three-quarters were female (76.4%; $n=58$). Thus the sample was similar to the US ED population; where 55% of females reported visits to the ED in 2010 (NHAMCS, 2010). The average age of the patient in the sample was 42 years ($M=41.57$; $SD=14.94$; $MIN/MAX=19/69$) old. The National Hospital Ambulatory Medical Care Survey (NHAMCS, 2010) indicated that the largest percent (27.9%) of the population surveyed were between the ages of 25–44 years of age. Thus our sample was similar to US ED population.

Nurse caring behaviors as perceived by the patient were measured using the Caring Behaviors Inventory-24 (CBI-24) Patient Version (Wu, Larrabee, & Putnam, 2006). The mean score on the Caring Behaviors Inventory-24 (CBI-24) Patient version (Wu, Larrabee, & Putnam, 2006) was 5.58 ($SD=.76$; $MIN/MAX=2.83/6.00$). The higher the CBI-24 mean score, the greater the perception of caring identified by patients. Because the items on the CBI-24 were positively worded, the results were slightly skewed with a reported mean score of 5.58 ($SD=.76$).

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Generally, in this study there was an overall positive perception of nurse caring as rated by the patient sample with a mean score of 5.58 based on a 1–6 point Likert scale. Hayes and Tyler-Ball (2007) also reported an overall positive perception of caring demonstrated by nurses in the ED. Seventy ED patients completed the Caring Behavior Inventory-42 (CBI-42) (Wolf et al., 1994) and the reported mean score for that sample was $M=4.8$. Although the CBI-24 was used in this current study, it provided similar findings as the CBI-42 (Wu, Larrabee, & Putnam, 2006). Wu, Larrabee and Putnam (2006) reported that the CBI-24 had equivalent psychometric properties, validity, reliability and scoring to the CBI-42. Therefore, discussions about results are conceptually similar.

Papastavrou, Efstathiou, Tsangari et al. (2011) in a cross-cultural study in six European Union countries also reported similar patient CBI mean scores using the CBI-24. The countries included Cyprus ($M=4.69$); the Czech Republic ($M=5.06$); Finland (5.08); Greece ($M=4.52$); Hungary ($M=5.23$); and Italy ($M=5.04$). Comparing the results with Palese et al. (2011), similar CBI mean scores were also reported with a mean total CBI of 4.9 in the same countries. The reported mean CBI scores reflect a high degree of nurse caring as perceived by patients and may indicate that nurse caring is considered a universal attribute of the nursing profession (Papastavrou et al., 2011). The reported differences in mean patient CBI scores in the aforementioned studies (Hayes and Tyler-Ball, 2007; Palese et al., 2011; Papastavrou, Efstathiou, Tsangari et al., 2011) and in this study may be related to cultural differences, economic conditions, and diverse healthcare delivery systems.

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The CBI-24 (Wu, Larrabee, & Putnam, 2006) also has four subscales called assurance, knowledge and skill, respectfulness, and connectedness. The subscales are representative of different nurse caring behaviors. The eight-item assurance of human presence subscale asks patients if “the nurse has returned voluntarily, encouraging the patient to call, responding quickly to the patient’s call and showing concern for the patient.” Knowledge and skill subscale has five items and is reflective of the technical aspects of care such as: “knowing how to give shots, being confident, managing equipment skillfully, and treating patient information confidentially.” The respectfulness subscale with six items asks patients if the “nurse listened attentively to them, treats them as an individual, and is empathetic with them.” Connectedness has five items and asks patients if “the nurse spent time with the patient, gives instructions or teaches the patient, and was patient with them.” Based on the subscales, statistically significant differences between patients and nurses ratings have been reported in the literature (Hayes & Tyler-Ball, 2007; Palese et al., 2011; Papastavrou, Efstathiou, Tsangari et al., 2011). Patients in this study consistently rated nurse caring behaviors across all the subscales higher than nurses rated their caring behaviors. The reported subscale mean scores were: Assurance (M=5.50), Knowledge and skill (M=5.83), Respectfulness (M=5.56) and Connectedness (M=5.40). There was a statistical difference between nurses and patients scores on the subscales of assurance and connectedness. This was statistically significant at $p=.000$. The assurance subscale reflects the nurses’ ability to be available to the patient therefore ensuring trust and security (Wu, Larrabee, & Putnam, 2006). The significance of this

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for patients in the ED was the knowledge that when patients called for the nurse, she was available to answer their call and provide safe and effective care. This subscale was also reported higher than other subscales by Raffi et al. 2007 and Wolf et al. 2003 in Medical-Surgical units and a Cardiac Catheterization unit respectively. In the study by Wolf et al. (2003), nurse availability was particularly important because these patients had undergone invasive cardiac procedures. It has been documented that patient anxiety about outcomes after Interventional Cardiac procedures was a concern for patients (Wolf et al., 2003); therefore having a caring empathetic nurse may allay patient anxiety. In the study by Hawley (2000), “vigilance” was the term used to describe nurse’s availability in the ED. Patients were comforted knowing that the nurse was always available to them and was monitoring them.

The subscale connectedness is relevant to this study because it is reflective of the nurses’ time spent with patients, teaching patients and being patient with them. However in this study, two items (spending time with you and being patient) on the connectedness subscale had lower individual mean scores on the CBI-24 reported by the patients. Mean scores were $M=5.33$ and $M=5.28$ on a scale of 1–6 respectively. This was also indicated in the data that 28.4% of the sample patients in this study reported that nurses spent either zero to 10 minutes caring for them. Similarly, Alhusban and Abualrub (2009) reported that medical, surgical and gynecological patients were not satisfied with the amount of time that nurses spent with them. Spending time with patients has not been widely recognized as an important nursing behavior particularly in the ED (Walsh & Dolan, 1999). Results such as these might also be explained by

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the nature of the ED, heavy assignments, and possibly inadequate staffing (Alhusban & Abualrub, 2009). In the current study, nurses' comments about the factors impeding nurses' optimal caring behaviors included an overcrowded ED, having too many patients, and not having enough staff.

Previous literature (Hayes & Tyler-Ball, 2007; Henderson et al., 2007; Marini, 1999; Schmidt, 2003; Turkel, 2001; Wiman et al., 2007) has reported that patients' perceptions of nurse caring behaviors have been categorized into two distinct forms of caring behaviors: the nurses' competence/technical skills and the communication/relationship skills. Patients in the ED (Hayes & Tyler-Ball, 2007) and Long-term care (Marini, 1999) rated the competence and technical skills of nurses as very important. Wiman et al. (2007) also reported "knowing how" was an important theme, reflective of the competent/technical skills of the nurse. Consistent with the literature, patients in this ED study, rated knowledge and skill as the highest subscale with a reported mean of 5.83(SD=1.46) on a scale of 1–6.

The subscale of respectfulness was rated second highest in patient ratings after knowledge and skill in this study. It had a reported mean of 5.56 (.76) on a scale of 6. This scale is reflective of many of the communication skills necessary to form an interpersonal relationship with the nurse. Communication/relationship skills were highly rated in the studies by Henderson et al., (2007), Schmidt (2003), Turkel (2001) and Wiman et al. (2007). However, Hayes and Tyler-Ball (2007) reported that communication/relationship skills, such as giving instructions, teaching patients and spending time with them were some of the lower rated caring behaviors. In comparison,

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Wysong and Driver (2009) found that patients rated the interpersonal skills of nurses as the most important skill that any nurse could possess. Additionally, Watson (1979,1985, 2008) theorizes caring can be demonstrated and practiced effectively only through the interpersonal relationship with the nurse.

In summary, patients' perceptions of nurse caring in this study were supported by the previous literature. In general there was an overall positive perception of nurse caring as rated by the patients. Additionally, there was a statistically significant difference between nurses and patients scores on the CBI-24 subscales of assurance and connectedness. This was statistically significant at $p=.000$.

Research sub-question two. The second sub-question "What are nurses' perceptions of nurse caring behaviors in the Emergency Department?" indicated that there was an overall positive perception of caring as rated by the nurses ($M=5.26$), although they did rate themselves lower than patients rated them ($M=5.58$). The nurse sample in this study included 86 nurses who were recruited from both EDs based on inclusion criteria. The average age of the nurse in the sample was 36 years ($M=35.89$; $SD=10.18$; $MIN/MAX=22/65$) old. Data indicated that over three-quarters (83.7%; $n=72$) of the nurse sample were female. Nurse caring behaviors as perceived by the nurse were measured using the Caring Behaviors Inventory-24(Cbi-24) Nurse Version (Wu, Larrabee, & Putnam, 2006). The mean score on the Caring Behaviors Inventory-24 (CBI-24) Nurse Version (Wu, Larrabee, & Putnam, 2006) was 5.26 ($SD=.48$; $MIN/MAX=4.04/6.00$). The higher the mean score on the total and individual

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CBI items, the greater the perception of caring was perceived by the nurses. In general, there was an overall positive perception of caring as rated by the nurses ($M=5.26$), although they did rate themselves lower than patients rated them ($M=5.58$) on all of the subscales. In an open-ended question on the survey, nurses were asked if they were able to care for their patients as they would like to. Anecdotal reports identified that not enough staffing, ED overcrowding, heavy assignments of too many patients and scarce supplies were identified as barriers to optimal nurse caring behavior in the ED. Pearcey (2010) also identified that nurses reported they were not as caring as they could have been because of time constraints. Nurses have also reported that the hectic pace on many other units contributed to feeling that they were less caring than they would like to have been (Sumner, 2008). Nurses in the ICU also reported staff shortages, being busy, and suggest caring for critically ill patients impact a nurses' caring ability (Wilkin & Slevin, 2004). The inability to care for patients as the nurse would prefer impacts the nurse patient relationship (Wilkin & Slevin, 2004); and according to Watson (1985) this interaction is core to caring. Watson informs us that the nurse/patient relationship and the satisfaction from this nurse/patient relationship is one of the basic tenets derived from the science of caring (Watson, 1985).

Papastavrou et al. (2011), however, reported consistently that hospital nurses rated themselves higher than patients rated the nurses in five out of six European countries. Reported mean nurse CBI scores for Cyprus, Italy, Hungary, Czech Repub-

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lic, Greece were $M=5.03$, $M=5.04$, $M=5.25$, $M=5.03$, $M=4.55$ on a scale of 1–6, respectively. The only country in the study where patients rated the nurses higher was Finland with a mean score of $M=5.11$. The reported higher nurse ratings may be explained by differences in nurse demographics and cultural expectations of healthcare providers between the countries (i.e., age, experience in unit and total RN experience) (Papastavrou et al., 2011).

Discrepancies in nurses' perceptions of caring behaviors have been the subject of many research studies (Chang, Lin, Chang, & Lin, 2005; Kihlgren, Nilson, & Sorlie, 2005; O'Connell & Landers, 2008; Pearcey, 2010; Sumner, 2008; Walsh & Dolan, 1999; Wiman & Wikblad, 2004). The above cited literature has reported that nurses' perceptions of nurse caring behaviors have been categorized into two distinct forms of caring behaviors: the nurses' competence/ technical skills and the communication/relationship skills. In the current study, nurses consistently rated their caring behaviors lower as compared to patients' ratings of nurses' caring on the four subscales of assurance, knowledge and skill, respectfulness and connectedness. When compared to patients' ratings this difference was statistically significant for the assurance and connectedness subscales ($p<.001$). However, some of the nurses' highest rated individual CBI items were "knows how to give shots ($M=5.84$), treating patient information confidentially ($M=5.76$), being knowledgeable ($M=5.72$), and being confident ($M=5.72$)". These individual items represent the competent/technical skills that many nurses define as delivering good care. The reported mean score on the subscale knowledge and skill was 5.70 ($SD=.40$). This subscale was rated highest by nurses in

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this study. Most notably ED nurses recognize that the hectic pace and the unstable ED environment require nurses to recognize, prioritize, assess, and initiate treatments competently and quickly for their patients (Wentzel, Brysiewicz, & Moore, 2014). However, Wilkin and Slevin (2004) reported that while technical competence was important to care, all of the technical knowledge and skill often renders the nurse invisible to caring. O'Connell and Landers (2008) reported that nurses caring for patients in Intensive Care units rated the nurse knows what she is doing (technically) as one of the most important caring behaviors. Similarly, nurses identified that being knowledgeable about patients' conditions was very important and that there was often little time for anything else but medical care (Kihlgren, Nilson, & Sorlie, 2005). Wilkin and Slevin (2004) described the theme "nurses' knowledge" as a very important nurse caring attribute when ICU nurses were asked "what is the meaning of caring?" with the pervasive themes of knowledge, skill, and competence identified by the nurses.

Consistent with the previous literature (Kihlgren, Nilson, & Sorlie, 2005; O'Connell & Landers, 2008; Pearcey, 2010; Sumner, 2008; Walsh & Dolan, 1999), nurses in the present study rated the subscale respectfulness second after knowledge and skill. It had a reported mean of 5.56 (SD=.76) on a scale of 1–6. This subscale represents the communication/relationship skills necessary to form an interpersonal relationship with patients. This again demonstrates the dichotomy in the nurses' perceptions of caring: technical/competence versus communication/relationship. Often times, the differences may be situational or unit based. For example, nurses working on Oncology units recognize the communication/relationship skills as most important

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in contrast to patients (Widmark-Petersson et al., 2000). Additionally, Wysong and Driver (2009) found that patients in an Intensive Care Step Down unit rated the interpersonal skills of nurses as the most important skill that any nurse could possess. In summary, nurses' perceptions of nurse caring behaviors were supported by the empirical literature. In general, there was an overall positive perception of nurse caring as rated by the nurses.

Research sub-question three. The third sub-question "What is the difference between nurses' perceptions of nurse caring behaviors and patients' perceptions of nurse caring behaviors in the Emergency Department?" indicated results from this study provide further evidence that differences in nurses' and patients perceptions of caring behaviors exist in the nurse patient dyads in the ED. Nurses and patients in the study were recruited as dyads. Each of the participants completed the Caring Behaviors Inventory-24 (CBI-24) (Wu, Larrabee, & Putnam, 2006). The difference between nurse and patient scores was characterized as the dyad difference score. Dyad difference scores were computed by subtracting total CBI-24 nurse scores from total CBI-24 patient scores. The range of scores was categorized into three groups. The first group reflected scores where the patients rated the nurse caring behaviors higher than the nurse rated their caring behaviors ($M=4.31$). This group was defined as difference scores that fell at $-.5$ or more negative standard deviations below the mean difference score. The second group reflected scores where the patients and nurses rated nurse caring behaviors comparably ($M=4.17$). This group was defined as difference scores that fell within $-.49$ to $.49$ SD of the mean difference score. The third group reflected

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scores where the nurses rated their nurse caring behaviors higher than the patients rated the nurses ($M=3.38$). This group was defined as difference scores falling .5 or more standard deviations above the mean difference score. In this study, approximately 88% of the nurse/patient dyads rated nurses' caring behaviors higher or comparable to nurses' ratings.

In the literature, patients consistently rated nurses' caring behaviors higher than nurses rated themselves (Berg & Danielson, 2007; Chang, Lin, Chang, & Lin, 2005; Poirier & Sossong, 2010; von Essen & Sjoden, 2003; Widmark-Petersen, von Essen, & Sjoden, 2000). Similarly, patients in this study consistently rated nurses higher on each of the four CBI-24 subscales. There was a statistically significant difference ($p<.001$) reported in the CBI-24 subscales of assurance and connectedness. Some of the behaviors and attitudes associated with assurance of human presence include: talking with the patient, showing concern for the patient, responding quickly to the patient, and giving medications and treatments on time. Connectedness refers to behaviors that incorporate professional knowledge and skill with patience, honesty, and trust. However, Papastavrou et al. (2011) reported that surgical nurses consistently rated their caring behaviors more highly than patients rated the nurses and there were significant differences in the subscales of assurance and respectfulness ($p<.001$). Nurses had higher ratings on these subscales as compared to the patients. The highest mean score was noted on the subscale knowledge and skill; both nurses and patients rated that subscale equally high ($M=5.30$ and $M=5.29$ respectively) (Papastavrou et al., 2011). In this current study, knowledge and skill was rated highest of the four

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subscales by both nurses and patients. The reported mean scores were 5.70 and 5.83 on a scale of 1–6, respectively. These results may be explained by the patient sample. More than two thirds of the patient sample was triaged with an Emergency Severity Index (ESI) score of level 3, considered Urgent. In contrast to the national data, the ED sample was largely Urgent. For these patients, treatment should be provided as soon as possible to relieve stress and pain. In addition, patients may need multiple modalities while they are waiting. Nurses use critical thinking skills to assess the patient condition and take appropriate actions. These are some of the first actions that patients recognize while they are being cared for in the ED.

The three highest nurse caring behaviors rated by patients were: treating patient information confidentially (M=5.79); managing equipment skillfully (M=5.77); and treating the patient as an individual (M=5.73). Patient confidentiality was highly rated by patients in this study was interesting to note, especially given that many patients were seen and treated in the hallways of the ED where little privacy can be afforded to patients. The ED has been called a “fishbowl” with limited or no privacy (Gooch, 2009). This was also noted in the current study when nurses provided evidence for the factors impeding optimal nurse caring behaviors citing privacy concerns (e.g., giving bedpans and talking about personal things in the hallways). Two of the three higher-rated nurse caring behaviors are reflective of the knowledge and skill subscale. Treating the patient as an individual was operationalized in the respectfulness subscale. Nurses rated knowing how to give shots (M=5.85), treating patient information confidentially (M=5.76) and demonstrating knowledge and skill (M=5.72)

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and being confident with the patient ($M=5.72$) as the four highest rated nurse caring behaviors. These caring behaviors are reflective of the subscale knowledge and skill. This has been consistently reported in the empirical literature (Berg & Danielson, 2007; Chang, Lin, Chang, & Lin, 2005; Hostutler, Taft, & Snyder, 1999; Marini, 1999; Poirier & Sossong, 2010; Walsh & Dolan, 1999; von Essen & Sjoden 2003; Widmark-Petersen, von Essen, & Sjoden, 2000). Nurses value knowledge and skill as highly important attributes of nursing. The empirical literature reports differences often exist between nurses' perceptions of nurse caring behaviors and patients' perceptions of nurse caring behaviors (Berg & Danielson, 2007; Chang, Lin, Chang, & Lin, 2005; Hostutler, Taft, & Snyder, 1999; Poirier & Sossong, 2010; von Essen & Sjoden, 2003; Widmark-Petersen, von Essen, & Sjoden, 2000). The difference between nurses and patients perceptions has been categorized into two types of nurse caring behaviors: the technical/competent skills that nurses possess versus the emotional/caring aspect of care. Results from this study provide further evidence that differences in nurses' and patients' perceptions of nurse caring behaviors exist in the nurse/patient dyads in the ED. Although Patiraki et al. (2012) suggested that caring behaviors as perceived by surgical patients were significantly affected by the type of admission, age and perceived health condition of the patient ($p=.001$), no statistical differences were associated with either nurse or patient study variables in their study. The findings, however, provide thoughtful insight for future research.

Research sub-question four. The fourth research sub-question "What is the relationship between patients' perceptions of nurse caring behaviors and patient satis-

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faction in the Emergency Department?” indicated that PSI scores were statistically significant and moderately correlated with nurse age, $r(84) = .24, p < .05$. PSI score correlations were weak and did not reach statistical significance for patient age, time spent by the nurse with the patient, or wait time in ED waiting room. Patients’ perceptions of nurse caring behaviors were measured using the Caring Behaviors Inventory-24 (Cbi-24) Patient Version (Wu, Larrabee, & Putnam, 2006). The mean score on the Caring Behaviors Inventory-24 (CBI-24) Patient version (Wu, Larrabee, & Putnam, 2006) was 5.58 on a scale of 1–6 ($SD = .76$; $MIN/MAX = 2.83/6.00$). The higher the CBI-24 mean score, the greater the perception of caring was identified and rated by patients. Patient satisfaction with nursing care was measured using the Patient Satisfaction Instrument (PSI) (Hinshaw & Atwood, 1982) that measures satisfaction across three dimensions: the technical-professional dimension; the interpersonal-educational dimension; and the interpersonal-trusting relationship dimension (Risser, 1975). The mean patient score on the PSI was 4.14 on a scale of 1-5 ($SD = .58$; $MIN/MAX = 2.44/4.84$). This question was addressed by the use of a t-test, analysis of variance (ANOVA) and a Pearson’s correlation. The t-test and ANOVA were used for the patient demographic variables (age, gender, race, ethnicity, marital status, education, employment status, previous ED visits, ED wait time, time spent by the nurse, and ESI) and patient satisfaction. The Pearson’s correlation was used for the continuous variables (e.g., nurse age, patient age, time spent with patient and ED wait time) and patient satisfaction. Results indicated the PSI scores were not statistically associated with patient gender, patient race, patient ethnicity, marital status, highest

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level of completed education, employment status, previous ED visits, and Emergency Severity Index (ESI). Analysis also indicated that PSI scores were statistically significant and moderately correlated with nurse age, $r(84) = .24, p < .05$. PSI score correlations were weak and did not reach statistical significance for patient age, time spent by the nurse with the patient, or wait time in ED waiting room. In this study, results indicated that approximately 88% ($n=76$) of the nurse/patient dyads were satisfied with nursing care. However, there was a small group of patients ($n=10$) who experienced lower levels of patient satisfaction as compared to the others. For this small group of patients, nurses rated their caring behaviors higher than patients rated them.

Patient satisfaction was not correlated significantly with any other patient demographic variables. There have been no reported significant correlations with patient satisfaction, consistent with the empirical literature. For example, Davis and Duffy (1999) reported that there were no statistically significant correlations between nurse caring, patient satisfaction, and patient age in the ED. Berg, Spaeth, Sook, Burdsal and Lippoldt (2012) found no differences in patient satisfaction based on age, gender and level of education. Wolf et al. (2003) found no statistically significant differences in patient satisfaction with caring behaviors in relation to gender. Additionally, Alhusban and Abualrub (2009) reported no statistical correlations between patients' age, length of stay in the hospital, educational level on patient satisfaction in Jordan. But, they did report that female patients enjoyed better satisfaction than male patients ($p=.04$). Oflaz and Vural (2010) reported that unmarried males experienced statistically significant ($p<.05$) less satisfaction. Additionally, satisfaction was not

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correlated with patients' level of education. However, they reported that age and patient satisfaction were significantly correlated ($p=.001$). Contrary to this, Rafii et al. (2008), reported that male patients were more satisfied with nursing care than female patients ($p=.003$) and patients that had been hospitalized previously ($p=.003$) were more satisfied.

Patient satisfaction with nurse caring behaviors has been well documented in the literature (Palese et al., 2011; Rafii, Hajinezhad, & Haghani, 2008; Wolf, Colahan, Costello, Warwick, Ambrose, & Giardino, 1998; Wolf, Miller, & Devine, 2003; Yeakel, Maljanian, Bohannon, & Coulombe, 2003) and was supported in this study. Although patients rated nurses more caring on the four CBI-24 subscales, knowledge and skill and respectfulness were rated the highest. However there were statistically significant differences ($p<.001$) between patients' and nurses' ratings on the CBI-24 subscales of assurance and connectedness. Knowledge and skill has been recognized as a hallmark of nursing care. Perhaps the technical actions that nurses perform are the first things patients recognize as being knowledgeable and skillful (Ofiaz & Vural, 2010). This may be particularly applicable to the patients in this study considering the fast-paced nature of the ED; many nursing interventions are conducted simultaneously, leaving little time for interpersonal communication (Berg et al., 2012). Alhusban and Abualrub (2009), Palese et al. (2011) and Papastavrou et al. (2011) reported very similar findings.

The second most highly rated subscale of respectfulness or respectful deference to others indicates how respect for patients is perceived by patients. Some of the

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caring behaviors associated with this subscale include “supporting the patient, treat the patient as an individual, being empathetic and attentively listening to patients”. Attentive listening to patients in a very crowded and busy ED is very important to patients. This attentive listening can make the difference in the care that patients receive and the information that is also delivered during handoff reports. Wysong and Driver (2009) reported patients consider nurses who are good listeners very skilled.

Research sub-question five. The fifth research sub-question “What is the relationship between nurses’ perceptions of nurse caring behaviors and patient satisfaction in the Emergency Department?” indicated most nurses (88%) rated their caring behaviors either lower or comparable to patients’ ratings. This was positively correlated with patient satisfaction. However, in one small group as nurses rated their caring behaviors higher than patients rated their caring behaviors; patients experienced lower levels of satisfaction. Nurses’ perceptions of nurse caring behaviors were measured using the Caring Behaviors Inventory-24 (Cbi-24) Nurse Version (Wu, Larrabee, & Putnam, 2006). The mean score on the Caring Behaviors Inventory-24 (CBI-24) Nurse version (Wu, Larrabee, & Putnam, 2006) was 5.26 on a scale of 1–6 (SD=.48; MIN/MAX=4.04/6.00). The higher the CBI-24 mean score, the greater the perception of caring was identified and rated by nurses. Patient satisfaction with nursing care was measured using the Patient Satisfaction Instrument (PSI) (Hinshaw & Atwood, 1982) that measures satisfaction across three dimensions: the technical-professional dimension; the interpersonal-educational dimension; and the interpersonal-trusting relationship dimension (Risser, 1975). The mean patient score on the

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PSI was 4.14 on a scale of 1–5 ($SD=.58$; $MIN/MAX=2.44/4.84$). This question was addressed by the use of a t-test, analysis of variance (ANOVA) and a Pearson's correlation. The t-test and ANOVA were used for the nurse demographic variables (i.e., age, gender, race, ethnicity, marital status, professional education, employment status, RN experience, and ED experience) and patient satisfaction. The Pearson's correlation was used for the continuous variables (i.e., nurse age, patient age, time spent with patient, and ED wait time) and patient satisfaction. Analysis indicated the PSI scores were not statistically associated with nurse gender, nurse experience, nurse employment status, nurse race, nurse ethnicity, nurse marital status, ED experience, or nurse professional education. Nurses' demographic variables have not been correlated with patient satisfaction in many previous studies and further research to assess the nurses' demographical characteristics may be required. Pearson's correlation indicated that PSI scores were statistically significant and moderately correlated with nurse age, $r(84)=.24, p<.05$.

Results revealed that PSI scores were inversely related to categories of dyad difference CBI scores at a statistically significant level, $F(2, 83)=13.29, p<.001$. Bonferroni post-hoc analysis indicated that the mean PSI score was significantly lower for the higher nurse rating group ($M=3.38$; $SD=.52$), in comparison to the higher patient ($M=4.31$; $SD=.46$) and comparable ($M=4.17$; $SD=.54$) dyad difference groups. In other words, most nurses rated their caring behaviors either lower or comparable to patients' ratings. This was positively correlated with patient satisfaction. However, in

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the group of nurses that rated their caring behaviors higher than patients rated their caring behaviors; patients experienced lower levels of satisfaction.

There were no statistically significant correlations for nurse demographic variables and patient satisfaction with nursing care in this study, consistent with the empirical literature. For instance, Chan and Chau (2005) found no statistically significant relationship between patient satisfaction and the educational level of the nurse. Patiraki et al. (2012) reported that the nurses' age ($p=.005$), total experience ($p=.001$) and experience in unit ($p<.001$) were significantly correlated with nurse caring behaviors and the CBI subscales. In this study, Pearson's correlation indicated satisfaction was correlated with the nurses' age ($r=.24$, $p<.05$). It is worth noting that the average age of the nurse in this study's sample was 36 years old and approximately 32% of the nurse sample was greater than 40 years old. The correlation with nurse age may suggest that patients valued that the nurse was more mature, self-confident and knowledgeable. This may explain the correlation between nurses' age and patient satisfaction. Wilkin and Slevin (2004) suggest that experienced nurses emphasize their ability to provide care to meet the individual need of patients. In the current study, the multiple regression model indicated that the nurses' age no longer contributed to patient satisfaction. Additional research is needed to identify other nurse personal and professional characteristics that affect their caring behaviors and ultimately patient satisfaction. Additionally, approximately 5% ($n=4$) of the nurses were new graduates and 72% had less than five years of ED experience. This may explain why nurses

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consistently rated themselves lower than patients on the CBI. They may lack the confidence or experience to rate their caring behaviors accurately. Anecdotal responses in the current study along with qualitative responses from Blank et al.'s (2014) study, point at environmental and organizational factors affecting both caring behaviors and patient satisfaction and need further study.

The hypothesis. "There is a positive relationship between patients' perceptions of nurse caring behaviors and patient satisfaction in the Emergency Department" was supported from the analysis of data from this study. The analysis of data supported the hypothesis that there was a positive relationship between patient's perceptions of nurse caring behaviors and patient satisfaction. However, this was apparent within two groups (higher patient rating group and comparable group) of the dyad difference scores. Higher patient group (n=36) reported mean PSI scores of 4.31 and the comparable group (n=40) reported mean PSI scores of 4.17. There was a statistically significant and inverse relationship for the group higher nurse dyad difference scores and patient satisfaction. This last group of dyads (n=10) reported mean PSI scores of 3.38. As nurses rated themselves more caring, patients experienced less satisfaction. This result was statistically significant ($B=-.74$; $SE=.18$; $\beta=-.41$; $p<.001$). An alternate explanation might be the nurses who rated themselves more caring did it for social desirability; knowing that those responses were more acceptable (idealized scores) and what the researcher was anticipating. Previous empirical literature (Elder et al., 2004; Larrabee et al., 2004; Palese et al., 2011; Rafii, Hajinezhad, & Haghani, 2008; Wolf, Colahan, Costello, Warwick, Am-

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brose, & Giardino, 1998; Wolf, Miller, & Devine, 2003; Yeakel, Maljanian, Bohannon, & Coulombe, 2003) support the hypothesis that nurse caring behaviors and patient satisfaction have been correlated. Elder et al. (2004) provided the initial support for the hypothesis that there is a positive relationship between nurse caring behaviors and patient satisfaction in the ED and this study provided additional confirmatory evidence and support for the hypothesis.

Limitations

Cone and Foster (2006) suggest that interpretation of any study data should be viewed in light of the study strengths and limitations. The study findings are site-specific to where the study was conducted; therefore, the results are not generalizable to all Emergency Departments. This was a convenience sample limited to the patients in the ED at the time of data collection so conclusions should be interpreted with caution. The sample was representative of both the patient and nurse population at the time of data collection; patients and nurses were recruited days, evenings, nights, weekends, and holidays. The sample was limited to two of the three existing area hospitals. In addition, the nurses and patients in the study population were sampled only once ensuring that sampling bias was not a factor in the findings.

Specifically, as the results relate to the nurse sample, the study was open to all nurses. However, once the full complement of nurse/patient dyads was completed, the remaining nurse participants (n=16) were not included in dyad data analysis. Additionally, 81 nurse participants offered multiple answers to the open-ended question at the end of the nurse demographic survey; these nurses were surveyed in a private area

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away from the ED and therefore had adequate time to respond. The patient sample was representative of the inclusion criteria but not representative of the full complement of ED patients. Patients who were triaged as level 1 and 2 were excluded, representing 2.7 % of all ED patients triaged during data collection (Staten Island University Hospital, 2014). A level 1 patient is considered Resuscitation; their condition is life threatening. Level 2 patients are considered Emergent. These patients' conditions could deteriorate rapidly if treatment is delayed (Staten Island University Hospital, 2010). In addition, patients who were being admitted and remained in the ED while waiting for bed assignment and fit the inclusion criteria could have been considered for inclusion to the study. There were few comments to the open-ended question at the end of the Patient Satisfaction Instrument, perhaps a result of being surveyed just prior to discharge, at a time when they were feeling exhausted and eager to leave the ED. Mailed questionnaires may have poor response rates (Polit & Beck, 2012), therefore to prevent loss of subjects patients were asked to participate at the point of care. All patients that were asked to participate and agreed were then enrolled. Because questionnaires used self-report data, this may result in participants responding with what they think the researcher wants to know. This may have led to a social desirability response set (Polit & Beck, 2012).

This study was conducted in a major hospital organization with two campuses. These two Emergency Departments serve two thirds of the area's population. Conducting the study at another area hospital may have provided more encompassing

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knowledge of ED nurse caring behaviors. A larger study with a purposeful sampling of institutions may have greater generalizability to the ED population.

Chapter VI

SUMMARY, CONCLUSIONS, IMPLICATIONS AND RECOMMENDATIONS

Summary

This study examined nurses' perceptions of nurse caring behaviors, patients' perceptions of nurse caring behaviors and their relationships to patient satisfaction in the Emergency Department. A descriptive cross sectional design was applied using the Caring Behaviors Inventory-24 (Cbi-24) Nurse and Patient Version (Wu, Larra-
bee, & Putnam, 2006) and the Patient Satisfaction Instrument (PSI) (Hinshaw & At-
wood, 1982). The average nurse in this sample was 36 years of age, female, and
worked full time. The average patient in this sample was 42 years of age, female, and
worked full time. Data collected and analyzed indicated that patient satisfaction was
statistically significant and negatively correlated ($\beta = -.41$; $p < .001$) with the categories
of CBI dyad difference scores for the group of nurses that rated themselves more car-
ing than patients' ratings of the nurses. In addition, patient satisfaction scores were
not statistically significantly correlated with nurse gender, marital status, ethnicity,
professional education, employment status or ED experience. With regard to patient
sample characteristics, there were no statistically significant associations detected for
patient satisfaction scores and patient gender, race, ethnicity, marital status, highest
level of education, employment status, previous ED visits, and Emergency Severity
Index. Additionally, there were statistically significant differences ($p < .001$) between

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nurses' and patients' perceptions on the subscales of the CBI. These differences were most prominent on the assurance and connectedness subscales.

Conclusions

Patient satisfaction and nurse caring behaviors have been studied in the empirical literature (Larrabee et al., 2004; Palese et al., 2011; Rafii, Hajinezhad, & Haghani, 2008; Wolf, Colahan, Costello, Warwick, Ambrose, & Giardino, 1998; Wolf, Miller, & Devine, 2003; Yeakel, Maljanian, Bohannon, & Coulombe, 2003) however, only three studies were completed in the ED (Blank et al., 2014; Elder et al., 2004; Johansen, 2014). This study contributes to advancing nursing knowledge by providing evidence of the correlation of patient satisfaction with nurses' and patients' perceptions of nurse caring behaviors in the ED. Although 88% of patients were satisfied with nurse caring behaviors, there is room for improvement. Although nurse caring behaviors account for 27% of the variance in patient satisfaction in this study, patient satisfaction may be related to many other factors. For example, factors that may affect satisfaction include personal traits of nurses and patients, cultural affiliations, staffing patterns, level of education for both the nurses and patients, in addition to varying systems of delivery of care (Patiraki et al., 2012).

Patients in this study consistently rated nurses' caring behaviors higher than nurses' rated their caring behaviors. This implies that discrepancies still exist between nurses' and patients' perceptions of nurse caring. The findings from this study may create an awareness of the differences between the technological aspects of caring versus the interpersonal aspects of caring. Additionally, nurses' and patients' differ-

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ences were most apparent on the CBI-24 subscales of assurance and connectedness. As previously noted from the nurses' anecdotal reports, ED nurses recognize the many contextual factors in the ED that can impede care delivery. Patients also recognize that "nurses work so hard" (Blank et al., 2014). In conclusion, the results were positive and should be shared with the ED management team and nurses, especially because satisfaction is a key quality measure of ED care. This feedback will provide the reinforcement to continue to work in the ED and may provide the impetus for improvement. Pearcey (2010) so eloquently reminds us "What is important is not that nurses may be perceived as not caring or uncaring, but when caring stops mattering to nurses."

Implications

Implications for Clinical Nursing Practice. Patient satisfaction was positively correlated with nurse caring behaviors for 88% of the patient sample population. There still remains a small percentage of patients that were less satisfied than others indicating room for improvement. Therefore, patient satisfaction continues to be a serious concern for ED nurses, ED nursing leadership and hospital administrators because patient satisfaction is one of the major quality indicators of care (Wagner & Bear, 2008). The Emergency Nurses Association (ENA Position Statement, 2010) also recognizes that the ED patient experience may affect patient satisfaction.

Given that patient satisfaction has been correlated with nurse caring behaviors in the literature (Coulombe et al., 2002; Elder et al., 2004; Palese et al., 2011; Rafii, Hajinezhad, & Haghani, 2008; Wolf, Colahan, Costello, Warwick, Ambrose, &

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Giardino, 1998; Wolf, Miller, & Devine, 2003) and supported by this study, nursing staff needs to acquire an understanding of how nurse caring behaviors impact satisfaction reports. What ED “nurses do and think and how they act affects the care they deliver” (Buckley & Harding, 2014). The nurse is the single most important healthcare provider to the patients’ hospital encounter for many patients (Gotlieb, 2002). They need to recognize what the ED patient encounter means to each patient. Once that is accomplished, then can individualized patient care be delivered (Muntlin, Gunningberg, & Carlsson, 2006). Nurses also need to recognize the importance of their interpersonal skills and its relationship to perceptions of caring behavior by patients (Berg et al., 2012; Oflaz & Vural, 2010). It is usually the nurse who coordinates the many aspects of patient care for a seamless transition from the ED to either admission or discharge. Patient satisfaction with ED nurse caring behaviors also influences further utilization of ED services and the adherence to the prescribed treatment plan upon discharge (Palese et al., 2011), which has also been recognized as a patient safety issue. Further studies may determine the association between nurse caring, patient satisfaction and patient outcomes related to adherence to discharge instructions.

Satisfaction with nurses’ technical competency was shown to be positively correlated with caring in this study consistent with previous studies (Berg & Danielson, 2007; Chang, Lin, Chang, & Lin, 2005; Hostutler, Taft & Snyder, 1999; Marini, 1999; Poirier & Sossong, 2010; von Essen & Sjoden 2003; Widmark-Petersen, von Essen, & Sjoden, 2000). In this study, ratings on the CBI-24 (Wu, Larrabee, & Putnam, 2006) indicated knowledge and skill was the most highly rated subscale by

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patients as well as nurses. Individual items in this subscale include managing equipment skillfully, demonstrating professional knowledge and knowing how to give shots. Although patients and nurses recognize these as important, it is not always the skill of the performance that is recognized, it is more often the caring behaviors that nurses demonstrate during these procedures (Wysong & Driver, 2009).

The connectedness subscale has been rated lowest by both patients and nurses. The behaviors related to connectedness include giving instructions to patients, spending time with patients, being tireless with patients and including the patients in their plan of care. Nurses self-report that having a heavy workload (too many patients) and an overcrowded ED compromise the care that they are able to deliver. In Pines et al. study in 2007, nurses' and patients' perceptions of compromised care had been associated with ED overcrowding. Regardless of the ED environment, patients need to feel that they are being cared for appropriately. The American Association of Critical Care Nurses (AACN, 2003) suggests that nurses create a compassionate and therapeutic environment for their patients as part of their caring behaviors. Patients respond favorably when they realize that their care/welfare is paramount to the nurse caring for them (Hawley, 2014). ED nurses are the only ones that can convey that feeling of security. ED nurses should explain clearly and precisely the processes in the ED so that patients may feel a greater connectedness to the nurses and enhance the patients' experiences with the ED (Alhusban & Albualrab, 2009). Although ED nurses have limited control over their environment (Wright, Causey, Dienemann, Guiton, Coleman, & Nussbaum, 2013), they have control of their actions and behav-

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iors. They must advocate for change in their work place. They can join hospital committees, social and professional organizations, media campaigns, and public policy initiatives to initiate change (Robinson, Jagim, & Ray, 2005). Nurses and physicians can work collaboratively to share ideas and values to implement policy changes.

Nurses can plan, implement and improve nursing interventions when they better understand what patients want (Marini, 1999).

Implications for Nursing Education. Generally, in this study there was an overall positive perception of nurse caring as rated by both patients ($M=5.58$; $SD=.76$) and nurses ($M=5.26$; $SD=.48$) based on a 1–6-point Likert scale. In addition, nurse caring behaviors were positively related to patient satisfaction in 88% of the nurse/patient dyads, indicating there were some patients that were less satisfied than others. This identifies a need for improvement. Also, nurses consistently rated their caring behaviors lower than patients rated their caring behaviors indicating there are discrepancies between nurses' and patients' perceptions of caring. Understanding caring and its impact on patient satisfaction remains a challenge for nurses and educators alike. Undergraduate nursing curricula may benefit from the integration of emergency nursing clinical experiences. The ENA supports ED clinical experiences in the nursing curriculum (ENA Position Statement, 1990).

The technical/competent skills of ED nurses are validated in yearly competencies. Nurse educators can suggest validating interpersonal skills with critical thinking and caring practices as well (Cypress, 2014; Wysong & Driver, 2009). This can be done through training programs and workshops, scenarios, and role playing in a high-

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fidelity simulation laboratory. In the controlled environment of the simulation laboratory, nurses can practice the interpersonal relationship guided by the nurse educator. The simulation experience can assess the new ED nurses' critical thinking ability and quick responses needed to function in the fast paced ED (Zekonis & Gantt, 2007). Debriefing opportunities after simulation enhance the experience and provide valuable feedback to the learners from both peers and the educator as well. Certification through the AACN or Certification of Emergency Nursing may also help to validate nurses' knowledge (Wysong & Driver, 2009). Certification in Emergency nursing has been recognized to improve patient care, patient outcomes, and foster greater nurse satisfaction (Grief, 2007). Additionally, institutions may benefit from having certified nurses within their ranks; it demonstrates the nurses' commitment to remaining current with the information and skills necessary to work in the ED (Valente, 2010). Many nurse executives have provided financial incentives for nurses to obtain certifications; in turn these certifications have been recognized by the institution's pursuit of Magnet accreditation (Spetz, 2014). Advancing nursing knowledge in the ED can be done by offering continuing educational opportunities both on and off site. For nurse educators, certification verifies that nursing educational course offerings may have been successful for the attainment of certification (Grief, 2007).

Implications for Nursing Administration. Robinson, Jagim and Ray (2005) report that ED overcrowding was a significant problem for hospitals approximately 30% of the time and was occurring in 62% of hospitals nationwide (Gooch, 2009). Nursing ED leadership along with hospital administration is under increasing pressure

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to address these workforce issues. Caught between the two are the nurses on the front who bear the burden of delivering safe care that is recognized by patients as caring. ED leadership and hospital administration need to evaluate and perform root cause analysis of ED overcrowding, understaffing and their impact on patient outcomes including patient satisfaction. The purpose would be to examine the internal and external factors that are related to overcrowding in order to provide relief to a system already at maximum capacity. In addition as the population is aging, recognition of a growing ED volume by the elderly and from nursing homes may require increased resources. However, there have been cost reduction trends nationwide, statewide, citywide and hospital-wide that affect staffing and supplies (Wolf et al., 1998). This in turn may compromise the nurses' ability to care for ED patients optimally. Therefore management must provide the financial resources to impact patient care (staffing, supplies, and management staff). Providing staff with the necessary resources helps to build morale and staff satisfaction. Management should review patient satisfaction indicators with nursing staff to understand, design and implement workforce redesign so that the ED can function more effectively. Institutions that value satisfaction will focus their efforts on improving workflow and improving patient satisfaction.

Current trends in nursing indicate that nurses are also looking for positions in non-patient care areas impacting the availability of Registered Nurses (Robinson, Jagim, & Ray, 2005). In addition, the nation's nurses are getting older and preparing for retirement. It is projected that 68.3% of the nursing workforce will be nearing re-

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irement age and ready for enrollment in Medicare by the year 2025 (Robinson, Jagim, & Ray, 2005). Because of the fast paced nature of the ED and high nurse/patient ratios, recruitment and retention of nurses has been a challenge. This was evident during the data collection of this study, as some nurses that were enrolled were no longer available to participate as part of a dyad because they had accepted other hospital positions. The ENA has developed staffing guidelines to account for not only patient census but the many other non-nursing roles that nurses encounter. In 2005 it was estimated that only 25% of all EDs had purchased the staffing guidelines (Robinson, Jagim, & Ray, 2005).

Management staff plays an important role in ensuring that a caring environment is visible and palpable in the ED despite the overwhelming workplace pressures. Allowing nurses to verbalize and decompress after a busy shift may help to improve morale and staff satisfaction. Providing mindfulness activities for nurses has been shown to decrease stress levels in nursing staff (Cunningham, Bartels, Grant, Ralph, & Moore, 2013). The benefits of the program need the support of ED management. In an effort to cut costs it is often suggested that nurses attend conferences on their own time with no remuneration. Therefore, the provision of educational opportunities with paid time off to attend conferences helps to advance nursing knowledge and retention efforts.

Recommendations for Further Study

Nurse caring behaviors are a distinct feature of nursing; it therefore seems appropriate that more studies on caring behaviors should be conducted. Continuing this

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line of research would provide further opportunities to discern the differences between nurses' and patients' perceptions of nurse caring behaviors. This study has provided the preliminary confirmatory evidence for the correlation between nurse caring behaviors and patient satisfaction in the ED. Although there was an overall positive perception of nurse caring and patient satisfaction; there is room for improvement. Future research may include a similar study with a larger population within a cross-sectional range of institutions, providing greater generalizability for ED nursing care and patient satisfaction. Additionally, it is important to continue the study of nurses' and patients' perceptions of caring in more diverse populations and settings because ED patients are not typical of many of the hospitalized patients. In addition, combining this study with qualitative interviews would provide insight into patients' expectations of ED nurse caring behaviors. Hostutler et al., (1999) report that nurses may not accurately perceive patients expectations. Therefore, studies that investigate patient expectations of nursing care in the ED may help nurses to meet patient expectations and ultimately improve satisfaction.

Because patient satisfaction is considered a quality indicator of care, further studies about patient satisfaction in the ED may help clarify the factors influencing patient satisfaction in the Emergency Department. ED patients are not typical of the hospitalized patient, using instruments to study satisfaction in the general inpatient hospital population may not be appropriate for use in the ED. Studies to measure and develop instruments specific to the ED may need to be developed. Wright et al., (2013) found patient satisfaction in the ED was significantly improved after the im-

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plementation of specific interventions. For example, ED patients were given warmed blankets, skid proof socks and an informational brochure. Similar intervention studies may be conducted by nurse researchers and ED nurses. The study could examine the potential relationship between the nursing intervention and patient satisfaction. By including ED nurses in the research process it may serve to improve ED nursing job satisfaction.

For the nursing profession to ensure that the contribution of nurse caring is made public and evident to the administrators of the healthcare system, it is critical that nurse researchers study how nurse caring behaviors affect patient outcomes. Patient outcome measures have been identified and used by healthcare organizations to determine quality of care rendered and financial remuneration (Burston, Chaboyer, & Gillespie, 2013). For instance in the ED, further study may investigate the effect of nurse caring behaviors' on adherence to discharge instructions. Additionally, nursing research can further clarify the effect of nurse caring behaviors on patient satisfaction and other quality outcomes to reinforce the positive contribution that nurse caring behaviors offer to patients each day.

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Appendix A

Dialogue for VP/Managers of ED

General Introductory Information:

My name is Theresa Bucco. I am doctoral candidate at Seton Hall University College of Nursing in South Orange New Jersey where I have developed a dissertation proposal to study nurses' perceptions of nurse caring behaviors, patients' perceptions of nurse caring behaviors and patient satisfaction in the ED. This study is one of several requirements for my Ph.D in Nursing. I would like to invite your nurses to participate in my research study. For the nurses to participate they must be ED nurses.

First, I would like to outline the process for executing this study and perhaps you may have valuable insight to clarify or simplify the process. I would like to complete this study with little to no disruption to patient care in the ED.

Attendance at one of your staff meetings were at your convenience. At this meeting I would like to review the study with the nurses, inform them of their rights, confidentiality, risks and benefits of the study. I will also bring a sample study packet with me as well as actual study packets which I will explain to the potential nurse participants. The nurses were asked to complete two study instruments. This should not take more than 10–15 minutes of their time. I would also like to enroll them at the same time. Additional meetings may be necessary to recruit as many nurses as possible. Is this something that I can do at any time or do I need a management representative with me to complete this step.

Patients were recruited based on Emergency Severity Index scores of 4 and 5. They must be between the ages of 18 and 69, and able to read, write and understand English. The patients must also be taken care of by one nurse from time of admission in the ED until discharge on the day of data collection.

I am requesting some assistance with the APCUM for patient selection based on the electronic tracking board and the primary nurse to corroborate that the patient meets the study inclusion and exclusion criteria.

Nurse and patient confidentiality is my utmost concern. I will not share this information with anyone.

Questions and Answers

Closing Remarks and thank you!

Appendix B

Oral Script for Nurse Meeting

1. Introduction of the nurse researcher.
2. Thank you for agreeing to meet with me and allowing me the opportunity to explain the purpose of my research study and discuss your possible participation in this study.
3. I am pursuing my Ph.D at Seton Hall University College of Nursing. As one of several requirements for my degree, I am conducting a research study to examine the nurse patient relationships in the ED.
4. In order to participate in the study you must be employed as either a full or part- time nurse in the ED.
5. The large unsealed manila envelope which I am distributing to you contains the research documents which I will review with you today. Please do not open anything until I have reviewed everything with you.
6. Today, I will use a sample envelope to review and explain all of the documents with you.
7. Everything that I am about to say to you will also be contained in the Explanatory Letter to Nurse Participants.
8. Attached to the manila envelope, you will find the letter to Nurse Participants
9. Informed Consent
10. The manila envelope contains:
 - a. Demographic Data Sheet
 - b. Caring Behaviors Inventory-24 (CBI-24)
11. All the documents except the Letter of Participation, Informed Consent and Patient Criteria have a unique numerical code in the upper right corner which matches the number of the envelope in your hand. This ID code is used in statistical analysis of the data and assures that your responses remain confidential.
12. I am asking that you complete all the materials in the packet and return them to me.
13. First, please read the Explanatory Letter to Nurse Participants which explains the study and provides details about the consent procedure and how to complete and then return the research packet materials.
14. Next please read the Consent form. Note the Consent Form does not contain a numerical code in the upper right hand corner as do all the other documents that follow. If you have no questions and agree to participate in this study, please sign your name on the Informed Consent where indicated and place it in the attached white envelope.
15. The next document is the Demographic Information sheet which asks age, education and job experiences as a nurse.
16. The remaining document is the Caring Behaviors Inventory-24 (CBI-24) that measures the study variables (concepts).

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17. It would be ideal if you could completely fill out all the documents as completely as possible and place them in the numerically coded manila envelope.
18. Return all envelopes to me, the nurse researcher or place them in the locked box at the ED North site Nurse Educator's office or for the ED South site in the locked box in the Nurse Manager's office.
19. All collected data will remain strictly confidential.
20. If you have any questions regarding your rights as a research participant, please call Mary Ruzicka Ph.D. Director of Seton Hall Institutional Review Board using the contact telephone number or mailing information noted on the Consent Form. If you have any questions regarding this study or the research process, please call me, Theresa Bucco or my dissertation committee chairperson, Dr. Marie Foley at the Seton Hall University, College of Nursing using the contact numbers and mailing information written on the consent form.

Appendix C

Explanatory Letter to Nurse Participants

Dear Participants,

My name is Theresa Bucco. I am a nurse and doctoral candidate at Seton Hall University College of Nursing in South Orange, New Jersey where I am studying the nurse patient relationship and patient satisfaction in the ED. This study is one of several requirements for my Ph.D in Nursing degree. Working in the ED has always been exciting to me. It was one of my most favorite positions along with being the Nursing Care Coordinator on nights. Some of my most memorable experiences have been in the ED. Little to no research has been done in the ED, and so I am inviting you to participate in my research study and have a chance to express your feelings about nurse caring in the ED. To participate in this study, you must currently be employed as a full or part- time nurse working in the Emergency Department.

First, you were asked to answer questions on two surveys:

- a. The Caring Behavior Inventory-24 (CBI-24)
- b. Demographic Work Sheet which asks questions about your age, marital status, ethnic background, employment status, RN work experience, Emergency Department work experience, highest level of education for data analysis.
- c. It will take about 10–15 minutes to complete the survey.

There are no risks in participating in this research beyond those experienced in everyday life. All of the information that you provide will remain confidential.

Although there are no benefits to you by participating in this study, it can result in increased nursing knowledge which can help to improve nursing care in the emergency department. This research might provide a better understanding of how the relationships between nurses and patients affect satisfaction with nursing care. This information could help nurses plan programs and make patient experiences in the Emergency Department better.

Your participation in this research is confidential. The data were stored and secured in my office in a locked desk drawer to which I have the single key. The Seton Hall University 's Office for Research Protections, the Institutional Review Board and the Office for Human Research Protections in the Department of Health and Human Services may review records related to this research study. In the event of a publication or presentation resulting from the research, no personally identifiable information were shared.

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Please contact Theresa Bucco at (718) 226-8461 with questions, complaints, or concerns about this research. You can also call this number if you feel this study has harmed you. If you have any questions, concerns, problems about your rights as a research participant or would like offer input, please contact Mary F. Ruzicka, Ph.D., Director of the Institutional Review Board at Seton Hall University at (973) 313-6314.

There were no monetary payment for participation in this research study; however, participating nurses will receive an Ambu® rescu key as a token of my appreciation for giving up your time to participate. Furthermore, there is no cost to you to participate in this study.

Your decision to be in this research is voluntary. You can stop at any time. You do not have to answer any questions you do not want to answer. Refusal to take part in or withdrawing from this study will involve no penalty to you and will not affect your job at the organization. If you decide to leave the study, you will contact the study nurse and inform her of your decision.

Your identity will remain confidential and will not be shared with anyone. You must be 18 years of age or older to take part in this research study. If you agree to take part in this research study and the information outlined above, please sign your name and indicate the date below. None of your answers were shared with anyone; it were used only as summarized in the research findings.

If you agree to participate, you were expected to complete all the documents in the study packet only once which includes the Informed Consent, Demographic Information questionnaire and the additional brief questionnaires that measure the concepts of interest in the study. The entire packet of questionnaires should not take more than 20 minutes to complete. It is perfectly acceptable if you use less or more time to complete the questionnaires. Please be careful to complete all questions. If you do not wish to participate in this study, or decide to withdraw after starting to complete the questionnaires, please return them to the nurse researcher. Your participation is completely voluntary.

Before completing any documents in the packet, please read the Informed Consent which immediately follows this letter. The Informed Consent describes the purpose of the study and your rights as a participant in the study. If you have no questions and are willing to participate, please read and sign your name at the bottom of the consent form. If you have questions regarding the study, please contact me, Theresa Bucco at (718) 226-8461.

Your name on the consent form cannot be matched with your responses on the questionnaires, since the consent form does not have any numeric ID code and is returned separately from the questionnaires. The numeric code numbers are used to facilitate the analysis of your responses and are matched with patients' responses.

CARING AND PATIENT SATISFACTION

Please keep in mind when completing the questionnaires, there are no right or wrong answers. Responses were analyzed and reported as data in the study. I were happy to share the overall findings with you after the study is completed. The process and form for requesting the findings of the study is included on the consent form.

After reading and signing the Informed consent, please place it in the white envelope, seal it and return it to the nurse researcher. After completing the questionnaires, please place them in the manila envelope, seal it and return to the nurse researcher.

Thank you for your participation.
Theresa Bucco

Appendix D

Nurse Informed Consent Form

Introduction: You understand that the nurses of Staten Island University Hospital are often engaged in nursing research. Before agreeing to participate in this research, it is important that you read and understand the explanation of the proposed study. Please ask the research nurse to explain any words or information that you do not clearly understand.

Title of Project: The Relationships Between Patients' Perceptions of Nurse Caring Behaviors, Nurses' Perceptions of Nurse Caring Behaviors, and Patient Satisfaction in the Emergency Department

Principal Investigator: Theresa Bucco MSN, RN-BC
Doctoral Candidate at Seton Hall University
Seton Hall University
South Orange, New Jersey
718-226-8461 (work)
Email: buccothe@shu.edu

Advisor: Dr. Marie Foley
Seton Hall University
South Orange, New Jersey
Email: foleymar@shu.edu

Other Investigator(s):

Purpose of the Study: The purpose of this research study is to examine the relationships between patients' perceptions of nurse caring behaviors, nurses' perceptions of nurse caring behaviors and patient satisfaction in the Emergency Department.

Procedures to be followed: You were asked to answer questions on two surveys:

- a. The Caring Behavior Inventory-24 (CBI-24) which asks you to identify the caring behaviors of the nurse who took care of you today by answering 24 questions.
- b. Demographic Work Sheet which asks questions about your age, marital status, ethnic background, employment status, RN work experience, Emergency Department work experience, highest level of education for data analysis.

CARING AND PATIENT SATISFACTION

Discomforts and Risks: There are no risks in participating in this research beyond those experienced in everyday life. All of the information that you provide will remain confidential.

Benefits: Although there are no benefits to you by participating in this study, it can result in increased nursing knowledge which can help to improve nursing care in the emergency department.

This research might provide a better understanding of how the relationships between nurses and patients affect satisfaction with nursing care. This information could help nurses plan programs and make patient experiences in the Emergency Department better.

Duration: It will take about 20 minutes to complete the survey.

Statement of Confidentiality: Your participation in this research is confidential. The data were stored and secured in a locked file to which I have the single key. The Seton Hall University's Office for Research Protections, the Institutional Review Board and the Office for Human Research Protections in the Department of Health and Human Services may review records related to this research study. In the event of a publication or presentation resulting from the research, no personally identifiable information were shared.

Right to Ask Questions: Please contact Theresa Bucco at (718) 226-8461 with questions, complaints, or concerns about this research. You can also call this number if you feel this study has harmed you. If you have any questions, concerns, problems about your rights as a research participant or would like to offer input, please contact Mary F. Ruzicka, Ph.D., Director of the Institutional Review Board at Seton Hall at (973) 313-6314.

Payment for participation: There were no payment for participation in this research study; however as a token of my appreciation for giving up your time you will receive an Ambu® rescu key.

Cost of participating: There is no cost to you to participate in this study.

Voluntary Participation: Your decision to be in this research is voluntary. You can stop at any time. You do not have to answer any questions you do not want to answer. Refusal to take part in or withdrawing from this study will involve no penalty to you and will not affect your job at the organization. If you decide to leave the study, you will contact the study nurse and inform her of your decision.

HIPAA: Your identity will remain confidential and will not be shared with anyone. You must be 18 years of age or older to take part in this research study. If you agree

CARING AND PATIENT SATISFACTION

to take part in this research study and the information outlined above, please sign your name and indicate the date below. None of your answers were shared with anyone; it were used only as summarized in the research findings

I have read the above description of this research and understand it. I have been informed of the risks and benefits involved and all of my questions have been answered to my satisfaction. Furthermore, I have been assured that any further questions that I have were answered by the research nurse. I voluntarily agree to participate in this study.

By signing this form I have not waived any of the legal rights, which I otherwise would have as a participant in a research study.

You were given a signed copy of this consent form for your records.

Participant Signature

Date

Person Obtaining Consent

Date

CARING AND PATIENT SATISFACTION

Appendix E

Caring Behaviors Inventory-24

NURSE VERSION

Directions: Please read the list of items that describe nurse caring. For each item, please *circle* the answer that stands for the extent that you made caring visible to your patient during their Emergency Department visit.

Remember, *you* are the *nurse!*

1. Attentively listening to the patient.

never almost never occasionally usually almost always always

2. Giving instructions or teaching the patient.

never almost never occasionally usually almost always always

3. Treating the patient as an individual.

never almost never occasionally usually almost always always

4. Spending time with the patient.

never almost never occasionally usually almost always always

5. Supporting the patient.

never almost never occasionally usually almost always always

6.. Being empathetic or identifying with the patient.

never almost never occasionally usually almost always always

7. Helping the patient grow.

never almost never occasionally usually almost always always

8. Being patient or tireless with the patient.

never almost never occasionally usually almost always always

9. Knowing how to give shots, IVs, etc.

never almost never occasionally usually almost always always

10. Being confident with the patient.

never almost never occasionally usually almost always always

11. Demonstrating professional knowledge and skill.

never almost never occasionally usually almost always always

12. Managing equipment skillfully.

never almost never occasionally usually almost always always

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13. Allowing the patient to express feelings about his or her disease and treatment.

never almost never occasionally usually almost always always

14. Including the patient in planning his or her care.

never almost never occasionally usually almost always always

15. Treating patient information confidentially.

never almost never occasionally usually almost always always

16. Returning to the patient voluntarily.

never almost never occasionally usually almost always always

17. Talking with the patient.

never almost never occasionally usually almost always always

18. Encouraging the patient to call if there are problems.

never almost never occasionally usually almost always always

19. Meeting the patient's stated and unstated needs.

never almost never occasionally usually almost always always

20. Responding quickly to the patient's call.

never almost never occasionally usually almost always always

21. Helping to reduce the patient's pain.

never almost never occasionally usually almost always always

22. Showing concern for the patient.

never almost never occasionally usually almost always always

23. Giving the patient's treatments and medications on time.

never almost never occasionally usually almost always always

24. Relieving the patient's symptoms.

never almost never occasionally usually almost always always

Wu et. al (2006)

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Nurse's Background Information

Directions: Mark the response that best describes you or write in the answers below.

<p>Age: _____</p>	<p>RN Experience:</p> <table style="width: 100%; border: none;"> <tr> <td><input type="checkbox"/> New Graduate</td> <td><input type="checkbox"/> 16-20 years</td> </tr> <tr> <td><input type="checkbox"/> 1-5 years</td> <td><input type="checkbox"/> 21-25 years</td> </tr> <tr> <td><input type="checkbox"/> 6-10 years</td> <td><input type="checkbox"/> more than 25 years</td> </tr> <tr> <td><input type="checkbox"/> 11-15 years</td> <td></td> </tr> </table>	<input type="checkbox"/> New Graduate	<input type="checkbox"/> 16-20 years	<input type="checkbox"/> 1-5 years	<input type="checkbox"/> 21-25 years	<input type="checkbox"/> 6-10 years	<input type="checkbox"/> more than 25 years	<input type="checkbox"/> 11-15 years	
<input type="checkbox"/> New Graduate	<input type="checkbox"/> 16-20 years								
<input type="checkbox"/> 1-5 years	<input type="checkbox"/> 21-25 years								
<input type="checkbox"/> 6-10 years	<input type="checkbox"/> more than 25 years								
<input type="checkbox"/> 11-15 years									
<p>Emergency Department Experience:</p> <p><input type="checkbox"/> New Graduate</p> <p><input type="checkbox"/> 1-5 years</p> <p><input type="checkbox"/> 6-10 years</p> <p><input type="checkbox"/> 11-15 years</p> <p><input type="checkbox"/> 16-20 years</p> <p><input type="checkbox"/> 21-25 years</p> <p><input type="checkbox"/> more than 25 years</p>	<p>Highest Level of Completed Professional Nursing Education:</p> <p><input type="checkbox"/> Diploma Graduate</p> <p><input type="checkbox"/> Associate Degree in Nursing</p> <p><input type="checkbox"/> Bachelor's Degree in Nursing</p> <p><input type="checkbox"/> Master's Degree in Nursing</p> <p><input type="checkbox"/> Doctoral Degree (DNP or PhD)</p> <p><input type="checkbox"/> Currently Enrolled in : <input type="checkbox"/> BSN program</p> <p style="padding-left: 150px;"><input type="checkbox"/> MSN program</p> <p style="padding-left: 150px;"><input type="checkbox"/> DNP/PhD</p> <p><input type="checkbox"/> Associate Degree in another academic discipline</p> <p><input type="checkbox"/> Bachelor's Degree in another academic discipline</p> <p><input type="checkbox"/> Master's Degree in another academic discipline</p>								
<p>Marital Status</p> <p><input type="checkbox"/> Single</p> <p><input type="checkbox"/> Married</p> <p><input type="checkbox"/> Divorced</p> <p><input type="checkbox"/> Widowed</p> <p><input type="checkbox"/> Separated</p>	<p>Employment Status: (Check all that apply)</p> <p><input type="checkbox"/> Work full-time (37.5 hrs/week or more)</p> <p><input type="checkbox"/> Work part-time (less than 37.5 hrs/week)</p>								
<p>Race</p> <p><input type="checkbox"/> White/Caucasian</p> <p><input type="checkbox"/> African/American or African Native</p> <p><input type="checkbox"/> American Indian or Alaskan Native</p> <p><input type="checkbox"/> Asian</p> <p><input type="checkbox"/> Native Hawaiian or other Pacific Islander</p> <p>Ethnicity</p> <p><input type="checkbox"/> Hispanic or Latino</p> <p><input type="checkbox"/> Not Hispanic or Latino</p>									

Nurse's Background Information

Directions: Mark the response that best describes you or write in the answers below.

Are you able to care for your patients in the Emergency Department as you would like?
Yes No
Why or Why not?

Appendix G

Explanatory Letter to Patient Participants

Dear Participants,

My name is Theresa Bucco. I am a registered nurse and doctoral student at Seton Hall University College of Nursing in South Orange, New Jersey where I am studying the nurse patient relationships in the Emergency Department. This study is a partial fulfillment of the requirements for my Ph. D in Nursing degree. I have been a nurse in the Emergency department for the past 20 years. It has always been interesting and exciting. There has always been something new to learn. That is why I am inviting you to participate in my research study, so that I can learn about your current experience in the Emergency Department.

Your participation is completely voluntary. If you agree to participate, you were expected to complete all the forms in the study packet which includes the Informed Consent, Demographic Information Sheet and the two additional brief questionnaires that measure the study concepts. The entire packet of questionnaires should not take more than 20 minutes to complete. It is perfectly acceptable if you use less or more time to complete the questionnaires. If you prefer that I read the questionnaires to you and record your responses that is perfectly fine. Please be careful to complete all questions. If you do not wish to participate in this study, or decide to withdraw after starting to complete the questionnaires, please return them to the nurse researcher. Participation or non-participation in the study will not result in any difference in care that you receive in the ED today.

First, you were asked to answer questions on three surveys:

- a. The first questionnaire asks you to identify some behaviors of the nurse who took care of you today by answering 24 questions.
- b. The second questionnaire asks you 25 questions about the care you received today.
- c. The last survey asks questions about your age, marital status, ethnic background, employment status, RN work experience, Emergency Department work experience, highest level of education for data analysis.

It will take about 15–20 minutes to complete the surveys.

There are no risks in participating in this research beyond those experienced in everyday life. All of the information that you provide will remain confidential.

Although there are no benefits to you by participating in this study, it can result in increased nursing knowledge which can help to improve nursing care in the emergency department. This research might provide a better understanding of how the relationships between nurses and patients affect satisfaction with nursing care.

CARING AND PATIENT SATISFACTION

This information could help nurses plan programs and make patient experiences in the Emergency Department better.

Your participation in this research is confidential. The data were stored and secured in a locked desk drawer to which I have the single key. The Seton Hall University's Office for Research Protections, the Institutional Review Board and the Office for Human Research Protections in the Department of Health and Human Services may review records related to this research study. In the event of a publication or presentation resulting from the research, no personally identifiable information were shared.

Please contact me, Theresa Bucco at (718) 226-8461 with questions, complaints, or concerns about this research. You can also call this number if you feel this study has harmed you. If you have any questions, concerns, or problems about your rights as a research participant or would like to offer input, please contact Mary F. Ruzicka, Ph.D., Director of the Institutional Review Board at Seton Hall at (973) 313-6314. Questions about research procedures can be answered by the research nurse.

There were no monetary payment for participation in this research study; however after the surveys are filled you will receive a first aid kit as a token of my appreciation. Furthermore, there is no cost to you to participate in this study.

Your decision to be in this research is voluntary. You can stop at any time. You do not have to answer any questions you do not want to answer. Refusal to take part in or withdrawing from this study will involve no penalty to you and will not impact your care in the ED. If you decide to leave the study, you may do so at any time.

Your identity will remain confidential and will not be shared with anyone. You must be 18 years of age or older to take part in this research study. If you agree to take part in this research study and the information outlined above, please sign your name and indicate the date. None of your answers were shared with anyone; it were used only as summarized in the research findings.

If you agree to participate, you were expected to complete all the forms in the study packet which includes the Informed Consent, Demographic Information questionnaire and the additional brief questionnaires that measure patient satisfaction and caring. It is perfectly acceptable if you use less or more time to complete the questionnaires. Please be careful to complete all questions. If you do not wish to participate in this study, or decide to withdraw after starting to complete the questionnaires, please return them to the nurse researcher. Your participation is completely voluntary.

Before completing any documents in the packet, please read the Informed Consent which immediately follows this letter. The Informed Consent describes the purpose of the study and your rights as a participant in the study. If you have no ques-

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tions and are willing to participate, please read and sign your name at the bottom of the consent form. If you have questions regarding the study, please contact me, Theresa Bucco.

Your name on the consent form cannot be matched with your responses on the questionnaires, since the consent form does not have any numeric ID code and is returned separately from the questionnaires. The numeric code numbers are used to facilitate the analysis of your responses and are matched with the nurses' responses. Please keep in mind when completing the questionnaires, there are no right or wrong answers. Responses were analyzed

and reported as data in the study. I were happy to share the overall findings with you after the study is completed. The process and form for requesting the findings of the study is included on the consent form.

After reading and signing the Informed consent, please return it to the nurse researcher. After completing the questionnaires, please place them in the manila envelope, seal it and return to the nurse researcher.

Thank you for your participation.
Theresa Bucco MSN, RN-BC

Appendix H

Patient Informed Consent Form

Introduction: You understand that the nurses of Staten Island University Hospital are often engaged in nursing research. Before agreeing to participate in this research, it is important that you read and understand the explanation of the proposed study. Please ask the research nurse to explain any words or information that you do not clearly understand.

Title of Project: The Relationships Between Patients' Perceptions of Nurse Caring Behaviors, Nurses' Perceptions of Nurse Caring Behaviors, and Patient Satisfaction in the Emergency Department

Principal Investigator: Theresa Bucco MSN, RN-BC
Doctoral Candidate at Seton Hall University
Seton Hall University
South Orange, New Jersey
718-226-8461 (work)
Email: buccothe@shu.edu

Advisor: Dr. Marie Foley
Seton Hall University
South Orange, New Jersey
Email: foleymar@shu.edu

Other Investigator(s):

Purpose of the Study: The purpose of this research study is to examine the relationships between patients' perceptions of nurse caring behaviors, nurses' perceptions of nurse caring behaviors and patient satisfaction in the Emergency Department.

a. Procedures to be followed: You were asked to answer questions on three surveys:

- a. The Caring Behavior Inventory-24 (CBI-24) which asks you to identify the caring behaviors of the nurse who took care of you today by answering 24 questions.
- b. The Patient Satisfaction Instrument (PSI) which asks you 25 questions about how satisfied you were with the nursing care that you received today.

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- c. Demographic Work Sheet which asks questions about your age, marital status, ethnic background, employment status, previous visits to the Emergency Department for data analysis.
- b. Discomforts and Risks: There are no risks in participating in this research beyond those experienced in everyday life. All of the information that you provide will remain confidential.
- c. Benefits: Although there are no benefits to you by participating in this study, it can result in increased nursing knowledge which can help to improve nursing care in the emergency department.

This research might provide a better understanding of how the relationships between nurses and patients affect satisfaction with nursing care. This information could help nurses plan programs and make patient experiences in the Emergency Department better.

Duration: It will take about 20 minutes to complete the survey.

- d. Statement of Confidentiality: Your participation in this research is confidential. The data were stored and secured in a locked file cabinet to which I have the single key. The Seton Hall University's Office for Research Protections, the Institutional Review Board and the Office for Human Research Protections in the Department of Health and Human Services may review records related to this research study. In the event of a publication or presentation resulting from the research, no personally identifiable information were shared.
- e. Right to Ask Questions: Please contact Theresa Bucco at (718) 226-8461 with questions, complaints or concerns about this research. You can also call this number if you feel this study has harmed you. If you have any questions, concerns, problems about your rights as a research participant or would like to offer input, please contact Mary F. Ruzicka, Ph.D., Director of the Institutional Review Board at Seton Hall at (973) 313-6314. Questions about research procedures can be answered by the research nurse.
- f. Payment for participation: There were no monetary payment for participation in this research study; however, as a token of my appreciation you will receive a first aid kit after you complete the surveys.
- g. Cost of participating: There is no cost to you to participate in this study.

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- h. Voluntary Participation: Your decision to be in this research is voluntary. You can stop at any time. You do not have to answer any questions you do not want to answer. Refusal to take part in or withdrawing from this study will involve no penalty, loss of benefits you would receive otherwise or any difference in the care that you were provided today. If you decide to leave the study, you will contact the study nurse and inform her of your decision.
- i. HIPAA: Your identity will remain confidential and will not be shared with anyone. You must be 18 years of age or older to take part in this research study. If you agree to take part in this research study and the information outlined above, please sign your name and indicate the date below. None of your answers were shared with anyone; it were used only as summarized in the research findings
- j. I have read the above description of this research and understand it. I have been informed of the risks and benefits involved and all of my questions have been answered to my satisfaction. Furthermore, I have been assured that any further questions that I have were answered by the research nurse. I voluntarily agree to participate in this study.

By signing this form I have not waived any of the legal rights, which I otherwise would have as a participant in a research study.

You were given a copy of this consent form for your records.

Participant Signature

Date

Person Obtaining Consent

Date

CARING AND PATIENT SATISFACTION

Appendix I

Patient Demographic Sheet

Directions: Mark the response that best describes you and write in the answers below.

<p>Age: _____</p>	<p>Patient's Gender <input type="checkbox"/> Male <input type="checkbox"/> Female</p>	<p>Marital Status: <input type="checkbox"/> Single <input type="checkbox"/> Married <input type="checkbox"/> Divorced <input type="checkbox"/> Widowed <input type="checkbox"/> Separated</p>
<p>Race <input type="checkbox"/> White/Caucasian <input type="checkbox"/> African/American or African Native <input type="checkbox"/> American Indian or Alaskan Native <input type="checkbox"/> Asian <input type="checkbox"/> Native Hawaiian or other Pacific Islander</p> <p>Ethnicity <input type="checkbox"/> Hispanic or Latino <input type="checkbox"/> Not Hispanic or Latino</p>		<p>Highest Level of Completed Education: <input type="checkbox"/> Less than High School <input type="checkbox"/> High School graduate <input type="checkbox"/> Some college <input type="checkbox"/> College graduate <input type="checkbox"/> Graduate School <input type="checkbox"/> Vocational Training</p>
<p>Employment Status <input type="checkbox"/> Work full-time (37.5 hrs/week or more) <input type="checkbox"/> Work part-time (less than 37.5 hrs/week) <input type="checkbox"/> Full-time homemaker <input type="checkbox"/> Unable to work due to injury/illness* <input type="checkbox"/> Retired <input type="checkbox"/> Unemployed <input type="checkbox"/> Other</p>		<p>Previous Emergency Room Visit(s) in this hospital? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If "Yes", how many emergency room visits within the past 12 months? _____</p>
<p>How long did you wait <i>in the waiting room</i> today? _____</p>		<p>How much time did the nurse spend with you today? _____</p>

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Appendix J

Caring Behaviors Inventory-24

PATIENT VERSION

Directions:

Please read the list of items that describe nurse caring. For each item, please *circle* the answer that stands for the extent that the nurse made caring visible during your Emergency Department visit.

Remember, *you* are the patient.

1. Attentively listening to the patient.

never almost never occasionally usually almost always always

2. Giving instructions or teaching the patient.

never almost never occasionally usually almost always always

3. Treating the patient as an individual.

never almost never occasionally usually almost always always

4. Spending time with the patient.

never almost never occasionally usually almost always always

5. Supporting the patient.

never almost never occasionally usually almost always always

6. Being empathetic or identifying with the patient.

never almost never occasionally usually almost always always

7. Helping the patient grow.

never almost never occasionally usually almost always always

8. Being patient or tireless with the patient.

never almost never occasionally usually almost always always

9. Knowing how to give shots, IVs, etc.

never almost never occasionally usually almost always always

10. Being confident with the patient.

never almost never occasionally usually almost always always

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11. Demonstrating professional knowledge and skill.

never almost never occasionally usually almost always always

12. Managing equipment skillfully.

never almost never occasionally usually almost always always

13. Allowing the patient to express feelings about his or her disease and treatment.

never almost never occasionally usually almost always always

14. Including the patient in planning his or her care.

never almost never occasionally usually almost always always

15. Treating patient information confidentially.

never almost never occasionally usually almost always always

16. Returning to the patient voluntarily.

never almost never occasionally usually almost always always

17. Talking with the patient.

never almost never occasionally usually almost always always

18. Encouraging the patient to call if there are problems.

never almost never occasionally usually almost always always

19. Meeting the patient's stated and unstated needs.

never almost never occasionally usually almost always always

20. Responding quickly to the patient's call.

never almost never occasionally usually almost always always

21. Helping to reduce the patient's pain.

never almost never occasionally usually almost always always

22. Showing concern for the patient.

never almost never occasionally usually almost always always

23. Giving the patient's treatments and medications on time.

never almost never occasionally usually almost always always

24. Relieving the patient's symptoms.

never almost never occasionally usually almost always always

Wu et. al (2006)

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CARING AND PATIENT SATISFACTION

Appendix K**Patient's Opinion of Nursing Care****Patient Satisfaction Instrument**

Please give your honest opinion for each statement on this list by circling one of the five answers to describe the nurse that was caring for you.

1. The nurse should be more attentive than he/ she is.

Strongly Agree Agree Uncertain Disagree Strongly Disagree

2. Too often the nurse thinks you can't understand the medical explanation of your illness so he/she doesn't bother to explain.

Strongly Agree Agree Uncertain Disagree Strongly Disagree

3. The nurse is pleasant to be around.

Strongly Agree Agree Uncertain Disagree Strongly Disagree

4. A person feels free to ask the nurse questions.

Strongly Agree Agree Uncertain Disagree Strongly Disagree

5. The nurse should be more friendly than he/she is.

Strongly Agree Agree Uncertain Disagree Strongly Disagree

6. The nurse is a person who can understand how I feel.

Strongly Agree Agree Uncertain Disagree Strongly Disagree

7. The nurse explains things in simple language.

Strongly Agree Agree Uncertain Disagree Strongly Disagree

8. The nurse asks a lot of questions, but once he/she finds the answers, he/she doesn't seem to do anything.

Strongly Agree Agree Uncertain Disagree Strongly Disagree

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9. When I need to talk to someone, I can go to the nurse with my problems.

Strongly Agree Agree Uncertain Disagree Strongly Disagree

10. The nurse is too busy at the desk to spend time talking to me.

Strongly Agree Agree Uncertain Disagree Strongly Disagree

11. I wish the nurse would tell me about the results of my tests more than he/ she does.

Strongly Agree Agree Uncertain Disagree Strongly Disagree

12. The nurse makes a point to show me how to carry out the doctor's orders.

Strongly Agree Agree Uncertain Disagree Strongly Disagree.

13. The nurse is often too disorganized to appear calm.

Strongly Agree Agree Uncertain Disagree Strongly Disagree

14. The nurse is understanding in listening to a patient's problems.

Strongly Agree Agree Uncertain Disagree Strongly Disagree

15. The nurse gives good advice.

Strongly Agree Agree Uncertain Disagree Strongly Disagree.

16. The nurse always knows what he/she is talking about.

Strongly Agree Agree Uncertain Disagree Strongly Disagree.

17. It is always easy to understand what the nurse is talking about.

Strongly Agree Agree Uncertain Disagree Strongly Disagree.

18. The nurse is too slow to do things for me.

Strongly Agree Agree Uncertain Disagree Strongly Disagree

19. The nurse is just not patient enough.

Strongly Agree Agree Uncertain Disagree Strongly Disagree

CARING AND PATIENT SATISFACTION

20. The nurse is not precise in doing his/her work.

Strongly Agree Agree Uncertain Disagree Strongly Disagree.

21. The nurse gives directions at just the right speed.

Strongly Agree Agree Uncertain Disagree Strongly Disagree

22. I'm tired of the nurse talking down to me.

Strongly Agree Agree Uncertain Disagree Strongly Disagree

23. Just talking to the nurse makes me feel better.

Strongly Agree Agree Uncertain Disagree Strongly Disagree

24. The nurse always gives complete enough explanations of why tests are ordered.

Strongly Agree Agree Uncertain Disagree Strongly Disagree

25. The nurse is skillful in assisting the doctor with procedures.

Strongly Agree Agree Uncertain Disagree Strongly Disagree

Please feel free to add other comments about your nursing care: