Nurse caring in Iran and its relationship with patient satisfaction

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KEY WORDS

Caring, nurse caring, patient satisfaction, CBI, PSI, quality care, Iran, Islam

ABSTRACT

Objective
The aim of this study was to determine the relationship between patients' reports of nurse caring and patient satisfaction with nursing care.

Design
The study used a cross sectional design. The Persian versions of the Revised Caring Behaviors Inventory (CBI) and the Patient Satisfaction Instrument (PSI) were used to establish the strength of association between nurse caring and patient satisfaction with nursing care. Data were analysed using SPSS version 10.

Setting
The setting was the educational hospitals affiliated to Iran University of Medical Sciences (IUMS). Heavy workloads and severe staff shortages are common characteristics of Tehran educational hospitals and the time that nurses previously allotted to direct care has been reduced.

Subjects
Two hundred and fifty patients who were hospitalised for medical conditions or surgical procedures were selected through a quota sampling method during 2007.

Results
The findings indicated a statistically significant relationships between patient reports of nurse caring and satisfaction with nursing care (r=0.72, p=0.000; CI 95%; 178.31-189.99 for the CBI and 82.81-86.71 for the PSI). Male patients were more satisfied with nursing care than female patients. Admissions to hospital during the last five years were positively correlated with patients' perceptions of nurse caring and satisfaction with nursing care.

Conclusion
This study which was carried out in Tehran, Iran supports earlier western evidence that nurse caring is associated with patient satisfaction with nursing care. It is important to reflect on the impact of the current health care environment and cultural religion of Iran on caring behaviors of nurses and patient satisfaction with nursing care. Heavy workloads and severe staff shortages are common characteristics of Tehran educational hospitals and the time that nurses previously allotted to direct care has been reduced which may contribute to changes in patients' perceptions of nurse caring and satisfaction with nursing care possibly reducing the effects of nursing care services. Iranian nurse managers need to consider the religious and cultural barriers to nurse caring and recompense it by providing more human resources.

INTRODUCTION

Acts of caring are said to be essential for human survival and development (Skott and Lundgren 2006). Caring has been widely discussed in the health care professions, especially in nursing which is considered to be one of the caring professions (Boykin and Schoenhofer 2001).

Watson (1985) describes caring as a moral ideal of nursing. According to Watson, caring preserves human dignity in cure dominated health care systems and becomes a standard by which cure is measured (Watson 1988c, p.177). Watson (1979) defined caring as a process involving knowledge, action and consequences and described ten 'carative' factors which can be used to incorporate caring into practice in any clinical setting. Morse et al (1991) represented caring actions as therapeutic interventions and concluded that the expected outcome of caring intervention is improvement in the welfare of patients.

Caring has been attributed to high quality nursing care in acute care settings (Scharf and Caley 1993). In the context of quality, caring is associated with patient satisfaction (Wolf et al 2003; Wolf et al 1998). Campbell et al (2000) in their systems based model for assessing care have pointed to health status and user evaluation as the outcomes of care. The user evaluation component in their model is composed of patient enablement and satisfaction. Research literature indicates that the assessment of quality of care from the patient's perspective has been operationalised as patient satisfaction (Dufrene 2000).

Nurse caring has been related to patient satisfaction in western literature (Wolf et al 2003; Wolf et al 1998; Forbes and Brown 1995; Boyle et al 1989). However researchers in Iran have not linked patients' reports of nurse caring to the outcome of patient satisfaction with nursing care.

It is important to examine the relationships of nurse caring to patient satisfaction in Tehran (the capital of Iran) because severe staff shortages, heavy workload, and low salaries in Tehran educational hospitals have dramatically reduced nurse motivation and the time allotted for direct care (Rafii et al 2007) which in turn may reduce the effects of nursing care services. Furthermore there are some religious and cultural barriers to nurse caring in Iran. Iranian women are culturally unwilling to spend time with men who are not members of their family. Consequently nurses (especially female nurses) in Persian culture and the Islam religion are hesitant about spending time with patients of the opposite sex. Touching the patient to communicate caring is also forbidden in the Islamic religion except for performing a special task or procedure, usually with gloves. Moreover it is not respectable in Persian culture to call people (except children) by their first name, yet nurses are expected to do so. Helping the patient to grow is possible only through a therapeutic relationship between the nurse and the patient which is not acceptable between a man and a woman who are not related in Persian culture. These cultural and religious barriers may reduce the effect of nursing care services by reducing the caring encounters between nurses and patients in Tehran.

The purpose of this study was to examine the relationship between patients' reports of nurse caring and their satisfaction with nursing care within the context of hospitals affiliated to Iran university of Medical Sciences in Tehran.

REVIEW OF THE LITERATURE

Caring relationships and caring environments preserve the dignity, wholeness and integrity of individuals (Watson 1979). Thus caring could be associated with patient outcomes, including recovery of functional status, symptom relief, enablement and satisfaction.

Caring is directed toward the welfare of the patient and takes place when nurses respond to patients in a caring situation (Wolf et al 1994; Wolf 1986; Gaut 1983; Watson 1979). Patient satisfaction, as one of the ultimate validators of effectiveness and quality of care (Donabedian 1992), is defined as the patient's opinion of the care received from nursing staff working in hospitals (Hinshaw and Atwood 1981).

Cronin and Harrison (1988) used Watson's 'carative' factors (Watson 1979) to develop the Caring Behaviors Assessment tool (CBA) to measure the importance of nurse caring behaviors as perceived by 22 patients post myocardial infarction. They also found that demonstration of professional competence as displayed during patient monitoring activities was viewed by subjects as most characteristic of caring. When these results are compared to the results of studies investigating nurses' perceptions of the importance of caring behaviours, differences are evident. Research by Larson (1986) using the Care- Q instrument on a sample of 75 cancer nurse found these nurses perceived the expressive forms of caring to be most important. However it is acknowledged that conclusions drawn by comparing results of studies conducted on different sample groups (ie nurses or patients) in different care settings and using different instruments (ie CARE- Q, CBA or CBI) are not conclusive.

Patient satisfaction studies include such topics as: patient' perception of providers' care; competence of providers; factors involving arrangements to receive medical care; pleasantness of environment; regularity of care; and the helpfulness of providers in improving or maintaining patient care status (Simpson et al 1995). Zhang et al (2001) described nursing competencies that contributed to effective nursing performance and patient satisfaction. The results indicated that interpersonal understanding is the most important characteristics for effective nursing performance. The authors concluded that individual nurses need to know the thoughts, feelings and attitudes of their patients. Fitzpatrick (1991) in a survey to determine patients' satisfaction with nursing care noted that responses received focused on the qualities that the patients expected of nurses. The selected qualities were: a friendly personality, kindness, dedication to duty, knowledge of the patient, a fast response to the patients' needs and adequate time to provide care.

The classic Donabedian (1992) quality of care model postulates that care outcomes (eg patient satisfaction) are influenced by the structure (eg staffing) and process of care (eg clinical activities and interpersonal care). The central problem here is separating outcomes that result from nursing as opposed to medical or other intervention or the patients' personal resources (Redfern and Norman 1990). However Mc Givern (1999) asserted that nursing care has a greater influence on patient satisfaction with health care services as compared to other providers' interventions.

In an investigation of the relationship of patient satisfaction with nursing care, Mahon (1996) concluded, *"Quality of care as measured by patient satisfaction is most closely tied to patient satisfaction with the quality of nursing care because most health care is nursing care"* (p.1243). Using the Care Satisfaction Questionnaire, Larson and Ferketich (1993) explored the perceptions of hospitalised adult medical-surgical patients (n=268) with nurses' care. The results implied that patients can respond objectively to questions about the caring dimensions of their nursing care, but these responses do not necessarily translate into an indicator of patient satisfaction. Valentine (1997) reviewed professional nurse caring as a holistic nursing process and related it to cost of services. Results indicated that patients were concerned about humane treatment as compared to cost, convenience and time of care. Nursing services and nurse attitudes strongly influenced patient satisfaction, leading Valentine to the conclusion that consumers' choices of where to seek health care were influenced by positive experiences with nurse caring behaviors.

Using an ex post facto design, Wolf et al (1998) investigated the relationship between former patients' (n=335) reports of nurse caring and patient satisfaction. Nurse caring was measured with the revised Caring Behaviors Inventory (CBI) (Wolf et al 1994) and patient satisfaction with nursing care was assessed by Patient Satisfaction Instrument (PSI) (Hinshaw and Atwood 1981). A strong positive correlation ($r=0.78$, $p<0.001$) was found between nurse caring and patient satisfaction with nursing care. Based on the results, the investigators inferred

that "*the performance of the nurses' especially the behaviors indicative of nurse caring, is integral to the quality of the experience encountered when patients are admitted for medical and surgical conditions*" (p.104). Wolf et al (2003) conducted a correlational study aimed at examining the relationship between cardiac patients' (n=73) reports of nurse caring and satisfaction with nursing care. Nurse caring and patient satisfaction was measured with the CBI (Wolf et al 1994) and PSI (Hinshaw and Atwood 1981) respectively. A moderately strong relationship (r= 0.53, p=0.01) between caring and satisfaction was found. The researchers commented that, since caring is considered fundamental to the nature of nursing, practicing nurses must appreciate its connection to outcomes, such as patient satisfaction.

As mentioned earlier, some behaviors that are considered as caring in western culture are not permissible in Islamic countries like Iran. As an example, touching a female patient with the aim of conveying empathy by a male nurse and vice versa is religiously prohibited in Iran and it may partly influence the perception of some aspects of nurse caring by patients.

METHOD

The purpose of this study was to examine the relationship between hospitalised patients' reports of nurse caring and patient satisfaction using a cross-sectional design. The revised Caring Behaviors Inventory (CBI) (Wolf et al 1994) and the Patient Satisfaction Instrument (PSI) (Hinshaw and Atwood 1981), based on Risser's (1975) work, were used to measure the two variables, the dependent variable being patient satisfaction with nursing care. This construct was measured using the Patient Satisfaction Instrument (Hinshaw and Atwood 1981; Hinshaw et al 1981; Risser 1975). Risser's premise held that it is necessary to evaluate nursing care from the patient's perspective in order to obtain a complete view of nurse-client interaction. The study hypothesised that patients' perceptions of nurse caring is associated with their satisfaction with nursing care. The relationships among some demographic characteristics of the subjects and their perceived nurse caring and satisfaction with nursing care were also assessed.

Two hundred and fifty adult patients including males and females hospitalised in medical-surgical wards of hospitals affiliated to Iran University of Medical Sciences (IUMS) were recruited through a quota sampling method (Macnee and McCabe 2007). The inclusion criteria were: at least 18 years of age, Persian speaking, and hospitalisation for three days or more. The exclusion criterion was any barrier by the subjects to responding to interview questions or completing the questionnaires.

The study was approved for human subjects' participation by the institutional review board of IUMS, as well as the nursing research committee of the university; subjects gave written consent for participation in the study. Permissions for using the CBI and PSI were obtained from Professor Wolf and Professor Hinshaw (who developed the respective instruments).

The Caring Behaviors Inventory (CBI) (Wolf et al 1994; Wolf 1986) includes 42 items and is scaled with a six point Likert scale to elicit responses (1=never; 2=almost never; 3=occasionally; 4=usually; 5=almost usually; 6=always). Patients respond to each CBI item by indicating the extent to which they experienced nurse caring during their current hospital stay. The five dimensions or subscales of nurse caring on the CBI include respectful deference to others (12 items), assurance of human presence (12 items), positive connectedness (9 items), professional knowledge and skill (5 items), and attentiveness to the other's experience (4 items).

Patient satisfaction with nursing care was measured with the PSI developed by Hinshaw and Atwood (1981) and based on Risser's (1975) instrument. The instrument comprises 25 items. The following dimensions of patient satisfaction are included in the instrument: technical-professional care (7 items), trust (11 items), and patient education (7 items). The

instrument uses a five point Likert scale (5=strongly agree; 4=agree; 3=uncertain; 2=disagree; 1=strongly disagree) to elicit responses. The patient profile section of the instrument was also completed.

Test-retest reliability, internal consistency reliability (α=0.98) and construct validity of the CBI have been previously established (Wolf et al 2003). The reliability and validity of the PSI are well established. For the purpose of this study, CBI and PSI were back translated. Ten faculty members of IUMS verified the face and content validity of the translated versions of the instruments. A pilot study with 20 medical and surgical patients was conducted to ensure internal consistency reliability of the translated versions of the CBI and PSI. The result was 0.92 for CBI and 0.90 for PSI. This data was not used in the final study. The internal consistency reliability was 0.97 for CBI, and 0.90 for PSI in this study (n=250). Correlations among CBI dimensions as well as correlation among PSI subscales were computed. They are found in tables 1 and 2. Individual item responses were summed to calculate the total CBI and PSI scores. Subscale totals and alpha coefficients were also computed which are found in table 3.

Data were collected during 2007. The sample of each ward was calculated based on the number of its beds (Macnee and Mc Cabe 2007). The male and female patients were recruited alternately to make the sample more representative of the population under study (the percent of males and females was relatively equal in the study population) (Macnee and McCabe 2007). Literate subjects were interviewed and their exact responses were transferred to the instruments. Data were analysed using SPSS- PC version 10.0.

FINDINGS

Tables 1 and 2 demonstrate the correlations among CBI dimensions as well as correlation among PSI subscales.

Table 1: Correlations among Caring Behaviors Inventory Dimensions (n=250)

Dimension	Respectful deference to other	Assurance of human presence	Positive connectedness	Professional knowledge and skill	Attentiveness to other's experience
Respectful deference to other	1.00				
Assurance of human presence	*0.84	1.00			
Positive connectedness	*0.89	*0.86	1.00		
Professional knowledge and skill	*0.75	*0.80	*0.74	1.00	
Attentiveness to other's experience	*0.79	*0.83	*0.77	*0.73	1.00

*Correlation is significant at the p=0.01 level (2- tailed)

Table 2: Correlations among Patient Satisfaction Inventory Dimensions (n= 250)

Dimension	Technical-professional care	Trust	Patient education
Technical-professional care	1.00		
Trust	*0.80	1.00	
Patient education	*0.79	*0.73	1.00

*Correlation is significant at the p=0.01 level (2- tailed)

Subscale totals and alpha coefficients are found in table 3.

Table 3: Mean (M), Standard Deviations (SD), Ranges, and Alpha Coefficients for CBI and PSI (N= 250)

Subscale	M	SD	Range	Alpha
CBI				
Respectful deference to other	51.06	13.63	13.0-72.0	0.901
Assurance of human presence	52.24	14.89	12.0-72.0	0.944
Positive connectedness	42.86	12.45	10.0-60.0	0.906
Professional knowledge and skill	24.56	5.51	5.0-30.0	0.876
Attentiveness to other's experience	17.66	5.01	4.0-24.0	0.845
Overall	184.14	46.90	43.0-252.0	0.976
PSI				
Technical-professional care	25.51	5.20	8.0-35.0	0.782
Trust	36.68	6.64	15.0-53.0	0.744
Patient education	22.56	5.09	7.0-34.0	0.724
Overall	84.76	15.65	37.0-119.0	0.901

Table 4 includes the demographic characteristics of the sample. The number of male and female patients was equal (males n=125, females n=125); most of the participants (60.8%) were married; had an elementary or secondary education; were tradesman or housewives; and enjoyed a reasonable financial status (67.2%). Most participants had not been hospitalised during the last five years and had positive experiences with their previous hospitalisation where relevant (57.65%). The duration of the current hospitalisation was less than seven days for most of patients (63.2%). Most participants neither had surgery (53.6%) nor expected an operation (75.6%) in their current hospitalisation.

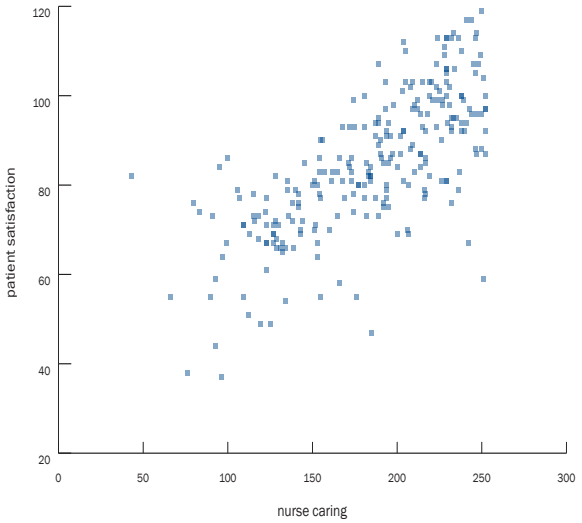
Table 4: Demographic characteristics of sample (n=250)

Characteristics		Mean	SD	Range	n	%
Age		40.44	18.1	18-95		
Sex	Female				125	50
	Male				125	50
Marital status	Single				81	32.6
	Married				152	60.8
	Widowed				14	5.6
	Divorced				3	1.2
Educational level	Literate				24	9.6
	Elementary				116	46.4
	Secondary education				72	28.8
	Higher education				38	15.2
Job	Jobless				45	18
	Housewife				70	28
	Worker				29	11.6
	Employee				31	12.4
	Tradesman				75	30

Table 4: Demographic characteristics of sample (n=250), *continued...*

Characteristics		Mean	SD	Range	n	%
Income	Low				27	10.8
	Sufficient				168	67.2
	High				54	21.6
	Too much				1	0.4
Ward	Medical				39	15.6
	Surgical				34	13.6
	Cardiac				10	4
	Neurology				18	7.2
	Nephrology and Urology				47	18
	Orthopedic				70	28
	EENT				32	12.8
Admissions to hospital in last 5 years	Yes				111	44.4
	No				139	55.6
Number of admissions to hospital in last 5 years		2.23	1.77	Jan-14		
Previous experience with hospitalisation	Very bad				2	1.8
	Bad				8	7.22
	Not so god				27	24.32
	Good				64	57.65
	Very good				10	9.01
Duration of current hospitalisation	3-6 days	10.99	6.23	Mar-28	158	63.2
	7-13 days				57	22.8
	14-20 days				18	7.2
	More than 20 days				17	6.8
Surgery in current hospitalisation	Yes				116	46.4
	No				134	53.6
Expectation for surgery in current hospitalisation	Yes				61	24.4
	No				189	75.6

Figure 1: Scatter diagram of patients' perceptions of nurse caring behaviours and patient satisfaction



The CBI (M= 184.14; SD= 46.90) and PSI (M= 84.76; SD= 15. 65) scores were totaled from item responses. Confidence intervals (95%) were 178.31-189.99 for the CBI and 82.81-86.71 for the PSI. The Pearson Product Moment Correlation Coefficient (Macnee and McCabe 2007) was used to test the hypothesis that nurse caring was related to patient satisfaction. There was a positive, high, significant correlation between nurse caring and satisfaction with nursing care (r=0.72; p=0.000) (figure 1).

To test statistically significant differences between demographic characteristics of subjects, their reports of nurse caring, and satisfaction with nursing care, two- tailed independent t-tests and one way

ANOVA were calculated (equal variances assumed) (Macnee and Mc Cabe 2007). Statistically significant differences were found for nurse caring (t=2.683, df=248, p=0.008); patient satisfaction (t=2.571, df=248, p=0.01); admission to hospital during the last five years and for patient satisfaction and patient sex (t=2.962, df=248, p= 0.003).

DISCUSSION

The results suggest that a statistically significant relationship exists between patient reports of nurse caring and satisfaction with nursing care (r=0.72, p=0.000) (figure 1). This supports the findings of Duffy (1990) who reported that the more nurses were considered to be caring the greater was patient satisfaction with nursing care. Stallins (1996) also examined the relationship between nurse caring behaviors and patient satisfaction and found a strong correlation (r=0.73, p<0.001) between these two variables.

Comparing the results of this study with A similar study conducted by Wolf et al (1998) found a higher level of nurse caring behaviours by former patients (M=203.92, SD=34.35). Furthermore, patients in Wolf et al (1998) study were more satisfied with nursing care (M=94.86, SD=12.91). This difference could be related to the structural features of care in the studied hospitals. It has been suggested that hospital organisational forms and operant mechanisms are likely to result in better patient outcomes, implicitly due to better nursing care (Chang et al 2002). On the other hand, severe staff shortages and heavy workloads which are of common characteristics of Tehran educational hospitals (Rafii et al 2007) could decrease the time for direct patient care. Nurses in Tehran consider there is a staffing crisis and that poor staffing results in decreased quality of care and dissatisfaction of patients (Rafii et al 2004). Wolf et al (1998) considers that reductions in nursing personnel and time for nursing care compromise the patient's sense that nurses voluntarily return to the bedside unless a treatment or procedure motivates them to do so. Furthermore, the religious and cultural barriers to nurse caring in Iran could have partly influenced the patients' perception of nurse caring and their satisfaction with nursing care. Nurses' religious beliefs such as fear of divine retribution might have modified their caring behaviours in the presence of organisational pressures and cultural limitations (Rafii et al 2007).

Patients with a history of admission to hospital during the last five years found nurses more caring and were also more satisfied with nursing care. It seems that more hospitalisations increase patients' opportunities for receiving nurses' care and observing their caring behaviours. Accordingly Wolf et al (1998) shorter lengths of stay in hospital may contribute to changes in patients' perceptions of nurse caring and satisfaction with nursing care. Moreover, most patients had positive experiences with hospitalisation (table 1) which would contribute to their satisfaction with nursing care.

Male patients were more satisfied with nursing care than females. The finding agrees with McGivern's (1999) study of patient satisfaction with quality of care. It has been suggested that men have fewer expectations than women and that male patients spontaneously receive more information from nursing staff than female patients (Johansson et al 2002). This in turn could contribute to their higher satisfaction with nursing care, although Wolf et al (2003) found no differences in nurse caring and patient satisfaction for male versus female cardiac patients.

LIMITATIONS

The finding of this study should be viewed with caution, since the sample was not chosen by a random technique. Furthermore, the sample was not homogenous by medical diagnoses or surgical procedures.

CONCLUSION

Nurses who care for adult patients could consider the influence that caring activities have on patients' perceptions of nurse caring behavior. Negative experiences with nursing staff may well negatively

influence perceptions of the entire hospital experience regardless of an overall positive experience and outcome. Moreover, patients may respond very positively to nursing care when they perceive that their welfare is a primary concern of nursing staff. Medical-surgical nurses might consider most of their contacts with patients as snapshot opportunities in which caring behaviours can be demonstrated (Wolf et al 1998).

Nursing managers and bedside nurses have a leadership role to play in ensuring that the 'caring ' component of nursing is enhanced despite workplace pressures which have the potential to reduce nursing to a collection of tasks and procedures. Moreover, increased emphasis on the moral, ethical and religious aspects of nurse caring and attributing more importance to the religious beliefs of Moslem nurses working in Tehran hospitals may be helpful in increasing the levels of patient satisfaction with nursing care.

The relationship between nurse caring and patient satisfaction with nursing care that was evident in this study and other western studies reveals that nurses from other countries who care for adult patients could consider the influence that caring activities have on patients' perceptions of nursing care.

RECOMMENDATIONS

Since patient satisfaction with nursing care and nurse caring may be influenced by many variables further qualitative studies are recommended to fully capture the realities of these two constructs especially in the context of Islamic countries. It may be beneficial to investigate more homogenous samples of patients, admitted for specific medical conditions or surgical procedures, to determine the association between patient rankings of nurse caring and patient satisfaction. Additionally, it may be useful to examine whether a difference exists in perceptions of nurse caring when male or female nurses provide care for Moslem patients.

In summary, this study supports earlier evidence that nurse caring is associated with patient satisfaction with nursing care. It is important to reflect on the impact of current health care environment of Iran on these variables.

REFERENCES

Boykin, A. and Schoenhofer, S. 2001. *Nursing as caring: a model of transforming practice*. Jones and Bartlett: Boston, Massachusetts, USA.

Boyle, K., Moddeman, G. and Mann, B. 1989. The importance of selected nursing activities to patients and their nurses. *Applied Nursing Research*, 2(4):173-177.

Brown, C. 1991. Aesthetics of nursing administration: the art of nursing in organisations. *Nursing Administration Quarterly,* 16(1):61-70.

Campbell, S., Roland, M. and Buetow, S. 2000. Defining quality of care. *Social Science and Medicine,* 51(II):1611-1625.

Chang, B., Lee, J., Pearson, M., Kahn, K., Elliott, M. and Rubenstein, L. 2002. Evaluating quality of nursing care: the gap between theory and practice. *Journal of Nursing Administration,* 32(7/8):405-418.

Cronin, S. and Harrison, B. 1988. Importance of nurse caring behaviors as perceived by patients after myocardial infarction. *Heart and Lung*, 17(4):374-380.

Donabedian A. 1992. The role of outcomes in quality assessment and assurance. *Quality Review Bulletin*, 18(11):356-360.

Duffy, J. 1990. *An analysis of the relationship among nurse caring behaviors and selected outcomes of care in hospitalized medical and/ or surgical patients*. Catholic University of America, University Microfilms, 1992137361: Ann Arbor, Michigan, USA.

Dufrene, R. 2000. An evaluation of a patient satisfaction survey: validity and reliability. *Evaluation and Program Planning,* 23(3):293-300.

Fitzpatrick, R. 1991. Survey of patient satisfaction: important general considerations. *British Medical Journal,* 302(6781):887-890.

Forbes, M. and Brown, H. 1995. Developing an instrument for measuring patient satisfaction. *AORN Journal,* (Association of Perioperative Registered Nurses) 61(4):737-743.

Gaut D. 1983. Development of a theoretically adequate description of caring. *Western Journal of Research*, 5(4):313-324.

Hinshaw, A. and Atwood, J. 1981. A patient satisfaction instrument: precision by replication. *Nursing Research,* 31(3):170-191.

Hinshaw, A., Scofield, R. and Atwood, J. 1981. Staff, patient, and cost outcomes of all- registered nurse staffing. *Journal of Nursing Administration,* 11(11-12):30-36.

Johansson, P., Oleni, M. and Fridlund, B. 2002. Patient satisfaction with care in the context of health care: a literature study. *Scandinavian Journal of Caring Sciences,* 16(4):337-344.

Larson, P. 1986. Cancer nurses perceptions of caring. *Cancer Nursing*, 9(2):86-91.

Larson, P. and Ferketich, S. 1993. Patients' satisfaction with nurses' caring during hospitalisation. *Western Journal of Nursing Research,* 15(6):690-707.

Macnee, C. and McCabe, S. 2007. *Understanding nursing research, reading and using research in evidence- based practice* (2nd ed). Wolters Kluwer, Lippincott, Williams and Wilkins: Philadelphia, Pennsylvania, USA.

McGivern, S. 1999. Patient satisfaction with quality of care in a hospital system in Qatar. *Journal of Health Quality,* 21(1):28-41.

Mahon, P. 1996. An analysis of the concept of 'patient satisfaction' as it relates to contemporary nursing care. *Journal of Advanced Nursing,* 24(6):1241-1248.

Morse, J., Bottorf, J., Neander, W. and Solberg, S. 1991. Comparative analysis of conceptualizations and theories of caring. *Journal of Nursing Scholarship*, 23(2):119-126.

Rafii, F., Oskouie, F. and Nikravesh, M. 2007. Caring behaviors of burn nurses and the related factors. *Burns,* 33(3):299-305.

Rafii, F., Oskouie, F. and Nikravesh M. 2004. Factors involved in nurses' responses to burnout: a grounded theory study. BMC Nursing, 3:6. Available from: http://www.biomedcentral.com/1472-6955/3/6 (accessed May 2006).

Redfern, S. and Norman I. 1990. Measuring the quality of nursing care: a consideration of different approaches. *Journal of Advanced Nursing*, 15(11):1260-1271.

Risser, N. 1975. Development of an instrument to measure patient satisfaction with nurses and nursing care in primary care setting. *Nursing Research,* 24(1):45-52.

Scharf, L. and Caley, L. 1993. Patients', nurses', and physicians perceptions of nurses' caring behaviours. *Nursing Connections,* 6(1):3-12.

Simpson, R., Scothern, G. and Vincent, M. 1995. Survey of carer satisfaction with the quality of care delivered to in-patients suffering from dementia. *Journal of Advanced Nursing,* 22(3):517-527.

Skott, C. and Lundgern, S. 2006. The value of caring- episodes of desired change. *International Journal for Human Caring*, 10(1):32-39.

Stallins, M. 1996. *Patient satisfaction and caring behaviors of the ED nurse.* Poster session presented at the annual meeting of the International Association for Human Caring: Rochester, Minnesota, USA.

Valentine, K. 1997. Exploration of the relationship between caring and cost*. Holistic Nursing Practice*, 11(4):71-81.

Watson, J. 1988. New dimensions of human caring theory. *Nursing Science Quarterly,* 1(4):175-181.

Watson, J. 1985. *Nursing: human science and human care* (3rd ed). National League for Nursing: New York, USA.

Watson, J. 1979. *Nursing: the philosophy and science of caring.* Little, Brown and Company: Boston, Massachusetts, USA.

Wolf, Z. 1986. The caring concept and nurse identified caring behaviours. *Topics in Clinical Nursing*, 8(2):84-93.

Wolf, Z., Miller, P. and Devine, M. 2003. Relationship between nurse caring and patient satisfaction in patients undergoing invasive cardiac procedures. *Medical Surgical Nursing*, 12(6):391-396.

Wolf, Z., Colahan, M., Costello, A., Warwick, F., Ambrose, M. and Giardino, E. 1998. Relationship between nurse caring and patient satisfaction. *Medical Surgical Nursing,* 7(2):99-110.

Wolf, Z., Giardino, E., Osborne, P. and Ambrose M. 1994. Dimensions of nurse caring. *Journal of Nursing Scholarship,* 26(2):107-111.

Zhang, Z-X., Luk, W., Arthur, D. and Wang, T. 2001. Nursing competencies: personal characteristics contributing to effective nursing performance. *Journal of Advanced Nursing,* 33(4):467-474.