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**THE RELATIONSHIP BETWEEN THE SPIRITUAL DIMENSION OF THE
NURSE-PATIENT RELATIONSHIP AND PATIENT WELL-BEING**

by

Sue Boswell Rieck

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A Dissertation Submitted to the Faculty of the

COLLEGE OF NURSING

**In Partial Fulfillment of the Requirements
For the Degree of**

Doctor of Philosophy

In the Graduate College

THE UNIVERSITY OF ARIZONA

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entitled The Relationship Between the Spiritual Dimension of the Nurse-
Patient-Relationship and Patient Well-Being

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DEDICATION

This dissertation is dedicated to the patients who shared their experience with the spiritual dimension of the nurse-patient relationship by participating in this study and to the many nurses and patients with whom I have worked throughout my nursing career who embody the spiritual dimension of the nurse-patient relationship and who were the impetus for this study.

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ABSTRACT

The purpose of this study was to examine if the spiritual dimension of the nurse-patient relationship (SDNPR) contributes to patient well-being. The research design was a nonexperimental, predictive, latent-variable model and two open-ended questions that asked participants to describe nurse characteristics and behaviors important to well-being. The model included age, significant life events, health, social support, and self-transcendence in addition to SDNPR as predictors of well-being. The sample consisted of hospitalized, postoperative adult patients ($N=98$).

The Spiritual Dimension Inventory (SDI), a 25 item, four dimensional scale, was developed to measure SDNPR. Reliability coefficients for the SDI subscales (connection, empathy, commitment, and trust) and for the total scale were .84 and above. Construct validity was established through measurement model testing. Predictive validity was supported by regression analysis. Connection, commitment, and trust explained 53% of the variance of well-being.

The predictive model was tested by confirmatory factor analysis and compared to five competing models. The results of the model testing did not support the hypothesized model of SDNPR predicting well-being.

Four themes of nurse characteristics emerged from the content analysis of the responses to the open-ended questions: concern for the patient in time of need, being recognized as a person and feeling accepted, competence, and teaching and explaining.

CHAPTER ONE

STATEMENT OF THE PROBLEM

Most nurses report experiences in which they connected with a patient in a vital and significant way, in which they felt they made a difference in the patient's life. They may describe this connection between patient and nurse as spiritual; having elements of connection, oneness, unity, dedication, devotion, meaning, understanding, acceptance, belonging, trust, and faith. Increasingly, the nursing literature has addressed the therapeutic benefit of the spiritual nature of the nurse-patient relationship (Appleton, 1994; Åström, Norberg, Hallberg, & Jansson, 1993; Bottorff, Gogag, & Engelberg-Lotzkar, 1995; Cameron, 1993; Clark, Cross, Dean, & Lowry, 1991; Fareed, 1996; Morse, Bottorff, Anderson, O'Brien, & Solberg, 1992; Schubert & Lionberger, 1995; Weissman & Appleton, 1995). Whether patients experience this spiritual dimension of the nurse-patient relationship and whether they perceive it to contribute to their well-being has not been clearly documented. The purpose of this study was to examine if the spiritual dimension of the nurse-patient relationship contributes to patient well-being from the patient's perspective.

Significance

In addressing the potential relationship between elements in the nurse-patient relationship and patient well-being, the study expands knowledge about the area of nurse-patient relationships. The nurse-patient relationship and intersubjective relating are essential concepts in many nursing theories. Paterson and Zderad (1976) developed a

theory of humanistic nursing which proposed that both nurse and patient move toward more-being through relating. Parse discussed “subject-to-subject-interrelationship, a loving, true presence with the other to promote health and quality of life,” (1987, p. 169). Watson called caring, an intersubjective human process, the “moral ideal of nursing” (1988, p. 39). Peplau wrote about the nurse-patient-relationship as a connection between the nurse and the patient within which nursing transforms, empowers, enables, touches, and changes people at a personal level (1988, p.9). King emphasized a mutual valuing of goals leading to a shared decision making process to achieve these mutually valued goals that ultimately reduce tension or stress (King, 1981, pp. 81-82). This study contributes to knowledge by testing the theory that patients perceive a spiritual dimension of the nurse-patient relationship and that they perceive it as promoting well-being.

Well-being is threatened when patients experience anxiety during illness (Barry, 1996). Both community-dwelling and hospitalized ill individuals feel vulnerable to the threats of disease, surgery, dependence, pain, other physical discomforts, uncertainty, and unfamiliarity. Certain factors may be present during hospitalization which are less common in community settings. The environment suddenly changes from the safety and security of the home to an alien and unfamiliar hospital setting. Unknown caregivers replace known and trusted family members and friends. The patient is often dependent on others for needs once managed easily and well without help. Other factors occur equally in hospital and community settings. Privacy is invaded as patients are asked personal questions, are required to expose their body to strangers, or endure embarrassing positioning for

procedures. Pain and other physical discomfort are experienced. It is not surprising that fear and anxiety exist when one is faced with illness, both during hospitalization and when interacting with health care providers in the community setting.

Nurses are well positioned to alleviate this emotional suffering. Hospital and community nurses are available 24 hours a day, seven days a week. If the nurse-patient relationship, as it may enhance well-being, can be better understood; the benefits could be far reaching. From a holistic perspective (Flowers, 1993; Goleman & Gurin, 1993; Ornstein & Sobel, 1987; Rossi, 1993; Weil, 1995), it is likely that as individuals experience positive relationships with nurses during illness, the process may facilitate their emotional well-being and physical recovery.

Purpose

The purpose of this study is to examine selected qualities of the nurse-patient relationship and patient well-being. These selected qualities are termed “the spiritual dimension of the nurse-patient relationship,” which is a synthesis of attributes of spirituality and related aspects of the nurse-patient relationship. The spiritual qualities of the nurse-patient relationship that are examined represent a transcendent connection between nurse and patient. It is proposed that through this nurse-patient connection, the nurse conveys understanding and acceptance to the patient; the nurse conveys commitment, dedication and devotion to nursing; and the nurse facilitates the patient’s trust in the nurse. The hypotheses are examined from the patient’s perspective. Both the spiritual dimension of the nurse-patient relationship and well-being are studied from the

patient's perspective or as perceived by the patient.

Selected demographic and health-related variables are included in the study, as they may influence the spiritual dimension of the nurse-patient relationship and/or well-being. The influence of age, significant life events, social support, general health, and the patient's spirituality on the spiritual dimension of the nurse-patient relationship and/or on patient well-being are measured. The extraneous, demographic, and health-related variables are studied from the patient's perspective. In sum, the purpose of the study is to examine the influence of a patient-perceived spiritual dimension of the nurse-patient relationship on patient-perceived well-being, taking into account certain demographic and health-related variables.

Theoretical Framework

Historical Background

From its inception nursing has had a spiritual essence. Early Christianity influenced nursing by its teaching of altruism and devotion to others, motivated by love for God and the desire to serve God. Classic nursing historian Minnie Goodnow (1942) states that this altruism and commitment raised nursing from being considered menial work to a professional status. Following the Reformation when nursing and religious organizations were in upheaval, the deaconess movement, which had begun during early Christianity, was revived. Florence Nightingale began her deaconess training during this period, believing that nursing was her calling from God (Nightingale, 1860/1994), a spiritual vocation. "Nursing is an Art; and if it is to be made an art, requires an exclusive

devotion, as hard a preparation, as any painter's or sculptor's work; for what is the having to do with dead canvas or cold marble compared with having to do with the living body – the temple of God's spirit. It is one of the Arts ... the finest of the Fine Arts”

(Nightingale, 1860/1996).

Historically, the roots of nursing arose from religion and an awareness of connection to God. Nightingale suggested a spiritual dimension in nursing in her writing in 1859. She referred to the patient feeling isolated, wanting to speak openly and honestly rather than keeping up a false pretense of hope in dire circumstances, wishing for connection, understanding, and acceptance, but experiencing only indifference (Nightingale, 1859/1969, p. 98-99). From the time of Nightingale until recently, nursing has been associated with churches and religious orders, both in education and in practice. Current nursing literature indicates a resurgence in the spiritual domain as part of nursing's phenomena of interest. Nursing researchers have identified essential qualities of the psychosocial dimension of the nurse-patient relationship which reflect the essence of being spiritual. These qualities are the components of the spiritual dimension of the nurse-patient relationship (SDNPR) (Figure 1) which are proposed to relate significantly to patient well-being. The model of the theoretical framework (Figure 2) presents the study variables to be measured and their proposed relationships. Each concept is described in the section following.

The Spiritual Dimension of the Nurse-Patient Relationship

The spiritual dimension of the nurse-patient relationship has five components:

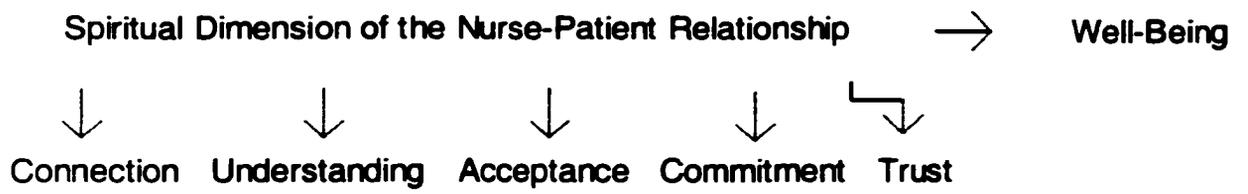


Figure 1. SDNPR and well-being.

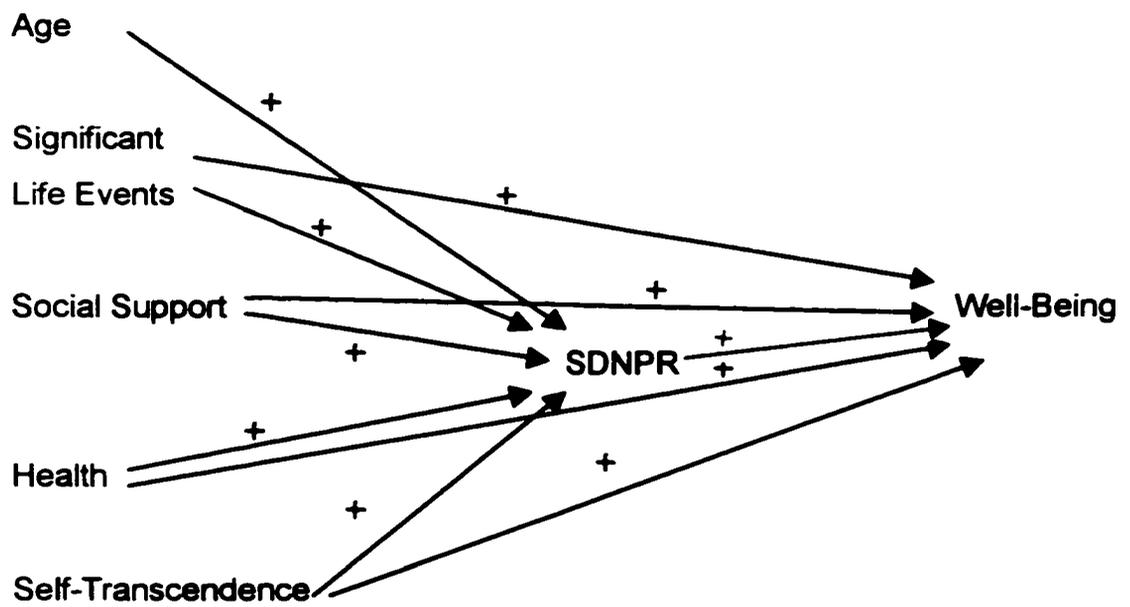


Figure 2. Original hypothesized model.

connection, understanding, acceptance, commitment, and trust. The spiritual dimension of the nurse-patient relationship extends the psycho-social dimension and is synthesized from attributes of spirituality and from specific roles the nurse assumes in the nurse-patient relationship.

The psycho-social dimension of a therapeutic relationship is the aspect of nurse-patient interaction that provides emotional support to the patient. The nurse provides emotional support in an attempt to relieve psychological distress by conveying understanding, acceptance, and caring about the patient and the patient's problems, while respecting that person's abilities and decision making capabilities (Barry, 1996).

Spirituality or being spiritual is the propensity to make meaning through a sense of relatedness to dimensions that transcend the self in such a way that empowers and does not devalue the individual (Reed, 1992; p. 350). Spirituality involves transcendence, relationship and connection (Elkins, Hedstrom, Hughes, Leaf, & Saunders, 1988; Ellison, 1983; Emblen, 1991; Hungelman, Kenkel-Rossi, Klassen & Stollenwerk, 1985; Nightingale, 1860/1994; Reed, 1992) and, as such, elaborates on the psycho-social dimension. Transcendence is moving beyond the human limitations of a physical and material world that may include pain and suffering and experiencing oneself in relationship to a wisdom or power greater than oneself (Ellison, 1983; Montgomery, 1996; Watson, 1983). Relationship is interacting with others in a meaningful or coherent fashion, implying kinship, marriage, common origin, or a romantic or passionate attachment (American Heritage Dictionary, 1992; Merriam Webster's Collegiate Dictionary, 1996).

Connection is being bonded, linked, or united (American Heritage Dictionary, 1992). The relationship and connection of spirituality are with a transcendent wisdom and power, with other life and nature, and with oneself (Burkhardt, 1989; Haase, Britt, Coward, Leidy, & Penn, 1992; Reed, 1992).

The nurse's role in the nurse-patient relationship, as described by Peplau (1962), that conveys a spiritual nature is as nurturer. The role of nurturer is demonstrated through warmth, love, acceptance, support and reassurance (Peplau, 1962). Characteristics of helping relationships, described by Carl Rogers, that relate to being spiritual are genuineness or authenticity, acceptance of and prizing the other person as an individual, and understanding another's view of the world and of self (Rogers, 1961, p. 37-38).

The definition of the spiritual dimension of the nurse-patient relationship here extends the psychosocial components of Peplau's role of nurturer and Rogers' characterizations of the helping relationship in terms of five components: a transcendent connection between the nurse and the patient; the nurse's empathic understanding of the patient as an individual and unconditional acceptance of the patient; the nurse's commitment to the profession of nursing, to humankind, and to the patient; and the patient's trust in the nurse. These five components comprise the spiritual dimension of the nurse-patient relationship. It is proposed that these five elements positively relate to patients' well-being.

Connection

Connection is defined as the patient's perception of a bond between the authentic

person of the nurse and the authentic person of the patient. The nurse and patient connect as they share their true selves expressed through thoughts, feelings and actions (Peplau, 1987). The patient perceives a connection that includes not only the physical and cognitive contact of nursing assessment and procedures but also an emotional and spiritual bond. The patient senses not only being known, but also knowing the nurse as a person. The patient feels a sharing of thoughts, feelings, values, and beliefs with the nurse. The Spiritual Dimension Inventory (Appendix B), which will be used to measure the spiritual dimension of the nurse-patient relationship, has a **connection** subscale, in which the following items represent **connection**: “The nurse and I ‘clicked.’” “I felt like I was ‘special’ to the nurse.” “The nurse was too busy to really care about me” (reverse scored). “It was hard for me to talk to the nurse” (reverse scored). “I got to know the nurse as a person, not just as a nurse.” “The nurse was sincere and ‘real.’” “I felt like I mattered to the nurse.” “The nurse didn’t share any feelings with me” (reverse scored).

This bond derives from the spiritual components of connection with other life and with a transcendent wisdom and power. Transcendent wisdom and power is conceptualized in diverse ways and may be God or a god, a divine consciousness, or a spirit of the universe. The transcendent dimension may be viewed by an individual as consistent with one of the world’s more traditional Eastern or Western religions or as a less traditional understanding of a wisdom and power beyond self. The commonalities of the transcendent dimension are that it is an unseen, intangible, mystery-being of wisdom and power, which is greater than and beyond one’s own wisdom and power (Burkhardt,

1989; Haase, Britt, Coward, Leidy, & Penn, 1992; Reed, 1992; Whitfield, 1984; Wilber, 1993).

Being spiritual involves recognition of and relatedness to this transcendent, intelligent, power or mystery-being (Burkhardt, 1989; Capra & Steindl-Rast, 1991; Emblin, 1992; Grof & Grof, 1990; Haase et al., 1992; Hungelman et al., 1985; NICA, 1975; Nightingale, 1860/1994; Reed, 1992). A connection with the transcendent underlies connection with all life, another element of being spiritual (Burkhardt, 1989; Capra & Steindl-Rast, 1991; Emblin, 1992; Grof & Grof, 1990; Haase et al., 1992; Hungelman, Kenkel-Rossi, Klassen, & Stollenwerk, 1985; NICA, 1975; Nightingale, 1860/1994; Reed, 1992).

The spiritual components of connection with the transcendent and with other life underlie the spiritual dimension of the nurse-patient relationship. The nurse-patient connection, sometimes approaching oneness or unity of nurse and patient, has the element of both nurse and patient being part of a power and wisdom beyond individual selves, and has been recognized by both nurses and patients as an essential part of the nurse-patient relationship (Appleton, 1994; Clark et al., 1991; Montgomery, 1996; Quinn, 1992). Patients have described this connection as spirit to spirit connection (Clark et al., 1991; Montgomery, 1996). Both nurses and patients have recounted transcendence through relatedness (Appleton, 1994; Montgomery, 1996) and a transcendence of individual self to an underlying energy field where nurse and patient are one (Quinn, 1992).

Understanding

Understanding is defined as the patient's perception of being known as a whole person. Understanding includes a patient's feeling that the nurse knows not only their physical body, but also the impact the illness experience has on their life. Understanding involves knowing thoughts, feelings, values, and beliefs within the context of the illness experience (Appleton, 1994; Åström et al., 1993; Fosbinder, 1994; Radwin, 1995; Ramos, 1992; Tanner et al., 1993). Understanding the patient and the patient's experience is a critical quality of the nurse-patient relationship (Åström et al., 1993; Bottorff et al., 1995; Bottorff & Morse, 1994; Fareed, 1996; Radwin, 1995; Ramos, 1992; Weissman & Appleton, 1995).

The nurse extends cognitive understanding by engaging in the patient's experience, being emotionally involved, and identifying with the patient (Morse et al., 1992). The nurse engages with the patient by means of an empathic linkage, which is the ability to feel the feelings experienced by another person (Peplau, 1987). Patients have described an understanding between themselves and the nurse as an intuitive understanding, similar to a premonition, or as "being on the same wavelength" (Appleton, 1994, p. 102). Other patients have recounted dehumanizing experiences, such as feeling as though they are a diagnosis or body part rather than a human being; feeling objectified when the nurse did things to them without explaining; or feeling that they were someone's job rather than a person. Understanding the individual behind the illness or behind the task to be done is one part of the spiritual dimension of the nurse-patient relationship. The Spiritual

Dimension Inventory has a subscale measuring **understanding**. The following items comprise the subscale: “The nurse understood me as a person, not just as an illness.” “The nurse had no idea how I really felt” (reverse scored). “The nurse seemed to feel what I was feeling.” “The nurse acted like my concerns were not important” (reverse scored).

Acceptance

Understanding can be accompanied by acceptance or by judgement and criticism. Acceptance, for the purpose of this study, is the patient’s perception of the nurse’s unconditional positive regard and a sense of being valued as a person regardless of condition, behavior, thoughts or feelings. Acceptance of feelings, perceptions, thoughts, and behaviors is implied in empathic understanding (Appleton, 1994; Åström et al., 1993; Fosbinder, 1994; Mullins, 1996; Radwin, 1995; Ramos, 1992; Tanner et al., 1993).

Patients sense acceptance when nurses share their personal selves and expose their humanness, allowing the patient to relate to the real person behind the outer face of the nurse (Åström et al., 1993; Fosbinder, 1994; Morse, 1991; Ramos, 1992). Patients who feel accepted relate feeling special, feeling as though they matter to the nurse as a human being, and feeling that they are more than just another patient or a job to be done (Ramos, 1992). Acceptance of the whole individual is closely related to understanding and connection, and is one component of the spiritual dimension of the nurse-patient relationship. The Spiritual Dimension Inventory has a subscale measuring **acceptance**, in which the following items represent **acceptance**: “I felt like I was ‘special’ to the nurse.”

“I got to know the nurse as a person, not just as a nurse.” “The nurse accepted me no matter what I felt or said.” “I felt judged and criticized by the nurse for what I said or did” (reverse scored). “I felt like I mattered to the nurse.” “I felt like I could ask the nurse for whatever I needed.” “The nurse was kind.”

Commitment

Commitment is defined as the patient’s perception of the nurse’s pledge or vow of honor to act according to the highest principles of the nursing profession. Commitment can be described as devotion or dedication to one’s calling or mission in life. A calling or mission in life is a unique assignment that no other can fulfill and that one was put on this earth to fulfill (Raatikainen, 1997), a religious duty (Fry, 1994). A sense of mission in life is one aspect of the search for meaning and purpose in life (Frankl, 1963). Commitment to one’s mission in life is based on a sense of responsibility to the source of the calling. Such accountability may be to one’s own conscience, to humanity or to God (Bishop & Scudder, 1996; Elkins et al., 1988; Frankl, 1963; Nightingale, 1860/1994).

Cooper (1988) describes covenantal relationships as modeled after the covenant between God and His chosen people. Covenantal relationships entail a gift, a promise, and a set of obligations. The patient’s gift to the nurse is engagement, the benefits of practice, and the patient’s presence. The nurse promises technical skills, to safeguard the patient, to give unqualified care, and to free the patient from fear of abandonment and unnecessary pain. A set of obligations comes out of the change in the covenanted. The nurse has gratitude to the patient and accepts the reciprocity and mutuality of the relationship. The

nurse initiates care in response to the patient and the patient's physical, emotional, and spiritual needs as they arise. The nurse's willingness to enter into the covenantal relationship invites the patient's trust (Cooper, 1988).

Committed nurses have a professional conscience, a sense of responsibility to nursing and to humankind, and believe that nursing is important and valuable (Raatikainen, 1997). Commitment encompasses the ethical principle of fidelity, the obligation to remain faithful to one's commitments, for example keeping promises and maintaining confidentiality (Cooper, 1988; Fry, 1994). Watson (1985) describes caring as the nurse's commitment to protect human dignity and preserve humanity.

Patients' perceptions of the nurse's commitment to nursing is a key element of the spiritual dimension of the nurse-patient relationship (Bottorff & Morse, 1994). Patients view committed nurses as devoted to nursing, considering it more than a job or a paycheck. Patients describe nurses who believe nursing is their calling as committed, "almost like a religious thing," (Appleton, 1994, p. 99). Patients believe committed nurses genuinely care about their fellow human beings and enjoy their job, going above and beyond what the job requires (Appleton, 1994; Fosbinder, 1994; Morse, 1991). The items of the SDI subscale which measure commitment are: "The nurse seemed dedicated to nursing." "I felt like nursing was 'just a job' to the nurse" (reverse scored). "The nurse didn't seem to like nursing very much" (reverse scored). "The nurse 'went the extra mile' for me."

Trust

Trust is the patient's perception of being able to rely on the integrity of the nurse to perform as expected, ensuring the patient's safety, and meeting basic needs skillfully and competently. Trust in the nurse-patient relationship begins when the patient trusts in the nurses's technical competence and knowledge, but develops into an interpersonal psychosocial trust (Fareed, 1996; Johns, 1996; Morse, 1991). Patients report trusting nurses who are committed to nursing and to them as individuals (Morse, 1991). Patients describe trusting nurses who are honest with them, doing what they said they would do when they said they would do it. Patients trust nurses who check on them frequently and check back to see how things worked (Bottorff et al., 1995; Fosbinder, 1995; Morse, 1991; Weissman, & Appleton, 1995). Items measuring trust on the SDI are: "I had trust in the nurse's care and ability." "I felt like the nurse was honest with me." "The nurse was there for me when I was in need." "I felt safe knowing she (he) was my nurse." "The nurse was competent and skilled."

Well-Being: Meaning in Life and Self-Confidence

Well-being is broadly defined as the perception that life is meaningful, that one has purpose in life, (Kass, 1991; Kass et al., 1991), a sense of self-confidence and hope during negative and positive life circumstances, life goals, and finds satisfaction in day to day activities (Kass, 1989). Self-confidence entails a sense of calm and inner peace in frightening situations, and focus, equanimity, and assertiveness during stressful experiences (Kass, 1989). Well being is conceptualized in positive terms, rather than in

terms of anxiety, hostility, depression, or other negative psychological variables.

Meaning is found both in life-in-general and within specific experiences. Meaning in life-in-general relates to having purpose for being and a sense of belonging (Elkins et al., 1988; Ellison, 1983; Emblen, 1992; Hungelman et al., 1985; Nightingale, 1994; Reed, 1992). Meaning in life within specific experiences takes into account that life varies from person to person and day to day, and relates to finding meaning in one's life at any given moment (Frankl, 1963, p. 171). The focus of well-being in the study is meaning in life within a specific illness experience, and as such is fluid and amenable to influences.

Relationship of the Spiritual Dimension of the Nurse-Patient Relationship to Patient Well-Being

A number of studies support a relationship between spirituality and well being (Aldridge, 1993; Belcher, Dettmore & Holzemer, 1989; Highfield, 1992; Johnson & Spilka, 1991; Larson, et al., 1992; Miller, 1985; Reed 1986a ; Reed, 1987a; Reed, 1991a). A relationship between the nurse-patient relationship and well-being has been theorized (Peplau, 1987; 1988); however, there is comparatively less research examining the potential relationship between the spiritual dimension of the nurse-patient relationship and patient well-being.

Numerous studies have been done on separate elements of the spiritual dimension of the nurse-patient relationship and their relationship to well being, but few have combined all five elements of the spiritual dimension of the nurse-patient relationship for a holistic picture of the nurse-patient relationship. A brief overview of these studies

indicates support for the significance of individual elements of the spiritual dimension of the nurse-patient relationship.

In terms of connection, physical well-being was found to be associated with mutual connectedness (Bottorff et al., 1995; Schubert & Lionberger, 1995). Also, patient psychological well being was related to the nurse's authenticity and connection with the patient's humanness (Kralik, Koch, & Wooton, 1997). Transcendent togetherness empowered patients; promoted a sense of control, self-confidence, and feeling positive about themselves (Appleton, 1994). Patients in close relationship with the nurse related finding meaning in the illness (Clark et al., 1991), alternatively explained as putting the experience in perspective (Bottorff et al., 1995), and restructuring ideas to a different way of thinking (Cameron, 1993).

In terms of understanding and acceptance, patients who experienced an empathic relationship with the nurse had less anger, anxiety, and depression (Hanchett, 1997); and improved physical and emotional well being (Raudonis, 1993). Patients' perception of the nurse's understanding the patient as a whole person and valuing that person was related to lessened anxiety (Williams, 1997). Patients' perception of acceptance was associated with emotional well-being and feeling safe (Weissman & Appleton, 1995).

In terms of commitment and trust, patients described feeling reassured when they sensed a trusting relationship with the nurse, when the nurse helped them put their experience into perspective, was available and accessible, and was optimistic (Fareed, 1996). Patients reported feeling comfortable, secure, and self confident with nurses who

were technically and interpersonally skilled, who showed a genuine respect and concern for their personhood, who were willing to face crisis and death with them, and who intuitively and quickly understood their feelings and needs (Jensen, Bäck-Pettersson, & Segesten, 1996). In summary, patients who reported elements of connection, understanding, acceptance, commitment, and trust often reported improved well-being.

Demographic and Health-Related Variables

Certain demographic and other variables may confound the contribution of the independent variable of interest (the patient's perception of a spiritual dimension of the nurse-patient relationship) on the dependent variable (the patient's perception of well-being). While these confounding variables are not of primary interest, they were measured and included in the study design. The confounding variables are age, significant life events, social support, general health, and the patient's spirituality. Age and significant life events are considered as demographic variables. Social support, general health, and the patient's spirituality are considered as health-related variables. A discussion of social support, general health, and spirituality follows.

Social Support

Social support is the perceived availability, if needed, of interpersonal relationships that provide emotional support or caring, love and empathy; instrumental or tangible support; informational support, or guidance and feedback that facilitates problem solving; appraisal support or information related to self evaluation; and social companionship and belonging, which includes spending time with others in leisure and recreational activities

(Sherbourne & Stewart, 1991). Social support also encompasses the existence of certain relationships, for example, marital status and the number of close friends and relatives with whom one feels at ease and free to talk to about worries or concerns (Sherbourne & Stewart, 1991). Social support impacts one's ability to cope with stress or illness (Barry, 1996), and positively influences health and emotional well being (Sherbourne & Stewart, 1991) and life satisfaction (Coffman, Levitt, & Deets, 1991).

A relationship between social support and the spiritual dimension of the nurse-patient relationship, or elements of SDNPR, is not clearly supported in the literature, but it is hypothesized that individuals who experience higher levels of social support are better able to access help from the nurse.

General Health

Health was defined in this study in terms of several indicators: the patient's perception of health; number of chronic illnesses or conditions; number of medications taken, excluding health promoting vitamins and minerals, oral contraceptives, and the like; and number of hospitalizations during the past 12 months. Perceived health and number of hospitalizations were measured by patient self report. Chronic illnesses and medications were obtained from the patient's medical record.

Health is associated with physical and emotional well being (Barry, 1996). A positive association between general health and elements of the spiritual dimension of the nurse-patient relationship is reported in the nursing literature (Bottorff et al., 1995; Cameron, 1993; Raudonis, 1993; Schubert, & Lionberger, 1995).

Spirituality as Self-Transcendence

Spirituality involves transcendence, relationship and connection (Elkins, Hedstrom, Hughes, Leaf, & Saunders, 1988; Ellison, 1983; Emblen, 1991; Hungelman, Kenkel-Rossi, Klassen & Stollenwerk, 1985; Nightengale, 1860/1994; Reed, 1992). Transcendent wisdom and power may be conceptualized as God or a god, a divine consciousness, or a spirit of the universe. The transcendent dimension may be viewed as consistent with one of the world's more traditional Eastern or Western religions or as a less traditional understanding of a wisdom and power beyond self. The commonalities of the transcendent dimension are that it is an unseen, intangible, mystery-being of wisdom and power, which is greater than and beyond one's own wisdom and power (Burkhardt, 1989; Haase, Britt, Coward, Leidy, & Penn, 1992; Reed, 1992; Whitfield, 1984; Wilber, 1993).

Being spiritual involves recognition of and relatedness to this transcendent, intelligent, power or mystery-being (Burkhardt, 1989; Capra & Steindl-Rast, 1991; Emblin, 1992; Grof & Grof, 1990; Haase et al., 1992; Hungelman et al., 1985; NICA, 1975; Nightingale, 1860/1994; Reed, 1992). A connection with the transcendent underlies connection with all life, another element of being spiritual (Burkhardt, 1989; Capra & Steindl-Rast, 1991; Emblin, 1992; Grof & Grof, 1990; Haase et al., 1992; Hungelman, Kenkel-Rossi, Klassen, & Stollenwerk, 1985; NICA, 1975; Nightingale, 1860/1994; Reed, 1992).

Self-transcendence is defined as the expansion of personal boundaries inwardly through reflective introspection, outwardly through altruistic concern for others' well-

being and temporally by recognition of the ability of the past and future to enhance one's present experience (Reed, 1991). Spirituality is expressed as transcending the self through the expansion of individual boundaries (Reed, 1991). The relationship between spirituality and well-being is well supported in the literature (Aldridge, 1993; Belcher, Dettmore & Holzemer, 1989; Highfield, 1992; Johnson & Spilka, 1991; Larson, et al., 1992; Miller, 1985; Reed, 1986a; Reed, 1987; Reed, 1991a). The relationship between patient spirituality, expressed as self-transcendence, and the spiritual dimension of the nurse-patient relationship, as defined in this study, has not been examined. The relationship is expected to be positive because both spirituality and the spiritual dimension of the nurse-patient relationship contain elements of transcendence, relationship, and connection.

Assumptions of the Study

There are several assumptions underlying the study which were neither measured nor included as variables in the study. These assumptions are: the nature of the spiritual dimension of the nurse-patient relationship is a mutual process; SDNPR is a developmental concept; the nurse's perspective of the nurse-patient relationship may differ from the patient's perception; the spiritual dimension of the nurse-patient relationship develops within a context of vulnerability; that influence of time and organizational variables influence the development of the nurse-patient relationship; there are similarities between nurse and patient that influence SDNPR; and certain patient conditions may preclude the development of SDNPR.

Mutual Process

Although only the patient's perspective was measured in this study, there is the assumption that the nurse-patient relationship is co-created by an iterative, dialectic process. While anxiety is a universal experience (Peplau, 1989), expectations about coping with such feelings vary from person to person. Individuals have differing conceptualizations of the nurse-patient relationship (Leininger, 1988). Patients expect meaningful, satisfying and beneficial care (Leininger, 1988, p. 155), but gentle and sensitive assessment must be used to discover what nursing care means to the patient (Leininger, 1988, p. 158). The nurse and patient share and explore expectations of the interaction, confirming or disconfirming the other's interpretation of the illness experience until an agreement that expresses their own values is reached that both can accept and act on together and (Gadow, 1990a, 1990b, 1996). The nurse helps the patient make decisions based on needs, interests, values, and lifestyle without imposing decisions or values on the patient (Fry, 1994). A mutual process occurs, through which the nurse decides how to relate to the patient: what to say, how to say it, how much to say, when to say it, what words to use, and so forth (Peplau, 1988).

The Spiritual Dimension as a Developmental Concept

An assumption of the study is that the propensity for people to experience a spiritual dimension in human relationships develops across the life span in normative and non-normative ways. Normative development is both age and history related. Thoughts and behaviors associated with spiritual development occur at average age groupings, from

childhood through old age, based on usual life experiences at certain ages and on living through certain historical events that influence spiritual development (Fowler, 1981; Hanley, 1985; Lawrence, 1987; Reed, 1991a; Reed, 1992). In adulthood spirituality develops from an emphasis on individualism, personal relationships, and concern for others in early adulthood to a search for meaning and purpose in life, understood in connection with other human beings and society in a more global sense, in middle adulthood (Bianchi, 1984; Fowler, 1981; Lawrence, 1987). Spiritual development in older adults is focused on transcendence, or the orientation toward purposes greater than the physical and mental self as well as on relationship with others and within self (Reed, 1991b).

Spirituality also develops non-normatively within the context of individual life events. Health related crises, such as illness, hospitalization, death of a loved one, one's own impending death, or other significant losses are often catalysts for spiritual development (Fahlberg, Wolfer, & Fahlberg, 1992; Reed, 1991a; Reed 1992). Thus, age and life experiences of both nurse and patient may influence the development of a nurse-patient relationship with a spiritual dimension. The nurse's years and experiences in nursing and the meaning and interpretation given to the specific illness event by both the nurse and patient affect the nature of the relationship. Thus, for this study it was assumed that the patient has the capacity to experience a spiritual dimension in the nurse-patient relationship. In this study, age and significant life events were measured and non-normative developmental influences in the area of health were controlled by limiting

subjects to those hospitalized for surgery.

Differing Perspectives: Nurse and Patient

A further assumption of the study is that the nurses' perception of the existence of a spiritual dimension to the nurse-patient relationship may not parallel the patient's experience. Nurses who value the emotional connection with the patient may experience a closeness and relatedness that the patient does not completely share. Nurses have been taught the importance of the nurse-patient relationship, but in practice the verbal interaction and relationship is very limited (May, 1990). Nursing care in some organizations is viewed as a set of routines, and moral pressure is exerted to have nurses comply with expectations to share the burden of tasks. Talking with patients may be appropriate only when all the work is done (May, 1990). This inconsistency between what the nurse has been taught and expects of the relationship and what is rewarded in actual practice may influence how nurses relate to patients. The nurses' perceptions of the nurse-patient relationship are important to understand. However, as a first step, the patients' perceptions of the relationship are the focus of this study. Patients, in both hospital and community settings, are in an admittedly vulnerable position and have unique perceptions about the nurse-patient relationship that are important to understand.

Context of Vulnerability

Another assumption is that the spiritual dimension of the nurse-patient relationship develops in an environment of vulnerability to threat, uncertainty and anxiety (Peplau, 1988, 1989). Anxiety is universal and is defined as a subjective feeling of uneasiness or

apprehension in response to a perceived threat to one's being, one's place in the world, one's beliefs, or one's expectations about self or the world (Peplau, 1989, p. 279). The perceived threat may be real or imagined, internal or external, personal or situational, within one's control or outside one's ability to change (Peplau, 1989, p. 280). In particular, threats to existence, perceptions of non-being or non-belonging, and threats to closely held values elicit anxiety (Peplau, 1982, p. 358).

Hospitalized individuals experience feelings of vulnerability, uncertainty and anxiety (Barry, 1996). Serious illness, surgery, dependence on others for basic needs, pain, and other physical discomforts are some of the threats that accompany hospitalization (Appleton, 1994; Cameron, 1993; Morse, 1991). Unfamiliarity with hospital etiquette, rules, and routines contributes to feelings of uncertainty and vulnerability (Cameron, 1993). Hospitalized patients are often separated from their usual support system (Cameron, 1993; Morse, 1991; Ramos, 1992, although some form informal support networks with other patients (Cameron, 1993). When personal coping resources are exceeded, patients feel emotional discomfort and distress (Cameron, 1993). Although the patients' perceptions of vulnerability and anxiety were neither measured nor included as variables in the study, the sample selection of individuals from a hospital setting were used to control vulnerability and anxiety. The use of a hospital setting thus controlled, in part, for patient vulnerability and anxiety.

Time and Organizational Variables

The next assumption is that time together is a necessary but not sufficient

condition for the development of the spiritual dimension of the nurse-patient relationship. Organizational factors such as the nurse's workload, both in terms of the number and the acuity of patients, influence the amount of time the nurse can devote to the patient (Appleton, 1994; Morse, 1991; Ramos, 1992). In addition to the time available to devote to creating a connection with the patient, overwork and low pay can contribute to the adoption of an attitude of doing what is required and no more (Bassett, 1997). The type of setting may also affect the time available to develop the spiritual dimension of the nurse patient relationship. Pediatric outpatient clinics, for instance, may support a connected relationship more than intensive care units or operating rooms (Lowenberg, 1994). The time which nurses and patients spend together was controlled by the selection of the setting and an item asking the patients about the nurse being too busy to really care about them.

Patient-Nurse Similarities and Patient Desirability

Nurses may spend more time with patients from similar backgrounds and those with compatible personalities (Morse, 1991; Ramos, 1992). Being of the same gender, age group, religion, ethnicity, marital and family status, of similar education, financial and social status may facilitate the development of the spiritual dimension of the nurse-patient relationship. When a nurse views a patient as undesirable, a close, connected relationship is unlikely to develop (Morse, 1991). "Difficult" patients receive less of the nurse's time spent on developing the spiritual dimension of the relationship (Carveth, 1995). These aspects of nurse-patient similarity and patient desirability were not measured in this study,

but are recognized as potentially influential extraneous factors in interpreting the results.

Precluding Conditions

Patients in certain physical or emotional states may be unable to form a close, connected relationship with the nurse. Unconscious patients or seriously mentally ill persons may be incapable of developing this relationship (Morse, 1991; Ramos, 1992). Patients with significant and serious physical illnesses, such as intractable pain or overwhelming fatigue or nausea, may be unable to interact or relate with the nurse (Ramos, 1992). Patients vary in their comfort with emotional intimacy (Morse, 1991; Schubert & Lionberger, 1995). Some patients such as those who are resentful of their illness, the hospitalization, or the nurse may be unable or unwilling to form a close, meaningful relationship with the nurse (Morse, 1991). Certain precluding conditions were controlled for by selection of subjects who were able to complete the study questionnaires. Other patient characteristics, such as comfort with intimacy, were not examined.

Summary of Assumptions

To summarize, several variables may influence the development of the spiritual dimension of the nurse-patient relationship (SDNPR) and patient perception of well-being. Some of these variables were measured, and their relationships were examined. Other variables were controlled by research design. Still other variables were not examined in the present study, but were assumptions of the study.

Age, significant life events, social support, health, and patient spirituality were measured and included in the hypothetical model as influencing the development of the

spiritual dimension of the nurse-patient relationship. Variables that may affect the spiritual dimension of the nurse-patient relationship, but were not examined in the study, are: developmental nurse-related variables; the nurse's perception of SDNPR; the nurse's spirituality; the nurse's perception of patient desirability and similarities with self; mutual process; non-normative developmental influences on patient spirituality; the patient's perception of similarities between nurse and self; the patient's comfort with intimacy; and the patient's attitude toward the illness, hospitalization, or the nurse. Variables which were controlled for in the research design were the severity of illness, patient's mental status, patient's perception of pain, vulnerability, and anxiety, the frequency and duration of the nurse-patient interaction, and the nurse's workload (Table 1).

Variables proposed to influence well-being that were measured in the present study are significant life events, social support, patient health, patient spirituality, and the patient's perception of a spiritual dimension of the nurse-patient relationship. Variables that were not measured in the present study, but that may influence well-being, are the patient's attitude toward the illness or hospitalization. Variables that may be related to well-being that were controlled by the research design were the patient's perceptions of vulnerability, anxiety, and pain; the severity of illness; and the patient's mental status (Table 2).

Hypotheses

Original Hypothesized Model

A hypothesized model was derived from the theoretical framework and is the main

Table 1.

Variables Influencing the Development of the SDNPR

Measured Variables	Variables Not Measured (Assumptions)	Variables Controlled by Research Design
Age	Mutual Process	Severity of Illness
Life Events	Patient Similarities	Vulnerability
Social Support	Patient Desirability	Anxiety
Health	Comfort with Intimacy	Frequency and Duration of Interaction
Self-Transcendence	Attitude Toward Illness	Workload
	Attitude Toward Hospitalization	Pain
	Attitude Toward Nurse	Mental Status
	Attitude Toward Nurse	

Table 2

Variables Influencing the Development of Well-Being

Measured Variables	Variables Not Measured (Assumptions)	Variables Controlled By Research Design
Age	Attitude Toward Illness	Severity of Illness
Life Events	Attitude Toward Hospitalization	Vulnerability
Social Support	Nurse perception of SDNPR	Anxiety
Health		Mental Status
Self-transcendence		Pain
Pt Perception of SDNPR		

hypothesis of the study. The hypothesized model has ten subhypotheses or relationships between variables. The subhypotheses of the original model are (1) the patient's perception of the spiritual dimension of the nurse patient relationship (SDNPR), a constellation of five variables (**connection, understanding, acceptance, commitment, and trust**) is positively related to the patient's perception of well-being (WB) (Figure 1), (2) the age of the patient is positively related to the SDNPR, (3) the number of significant life events (SLE) is positively related to SDNPR, (4) the number of significant life events is positively associated with well-being, (5) social support (SS) is positively associated with SDNPR, (6) social support is positively related to well being, (7) health is positively associated with SDNPR, (8) health is positively associated with well being, (9) self-transcendence (ST) is positively related to the SDNPR, and (10) self-transcendence is positively related to well being. The original hypothesized model with all subhypotheses is depicted in Figure 2.

Alternate Models

In an attempt to minimize the precipitous adoption of a premature theory, multipleworking hypotheses were adopted (Chamberlin, 1890/1965). In his classic work Chamberlin likened a researcher's attitude toward theory to parental love for a child. As a parent regards a child with affection and love, the researcher becomes attached to a theory. Through consideration of every rational explanation of phenomena and the development of all tenable hypotheses, knowing that some "intellectual children will die and others will survive," the researcher lessens the chance of unconsciously selecting

supporting phenomena and neglecting unfavorable variables or relationships between variables (Chamberlin, 1890/1965, p. 755-756).

Platt (1964, p. 347) refers to this concept as “strong inference.” He states that strong inference is a “simple and old-fashioned method of inductive inference that goes back to Francis Bacon. Strong inference is the systematic process of devising alternative hypotheses, testing the hypotheses, excluding those not supported; then repeating the process, reformulating hypotheses to refine the possibilities that remain, and continuing the process.

Cook (1985) applied this concept specifically to causal models. He suggested comparing causal explanatory models with other models, placing them in competition with each other, in addition to testing the goodness of fit in a single model. He extended multiplism by advocating for multiple constructs and multiple measurements of constructs (Cook, 1985). Shadish (1989, p. 13), however, cautioned the researcher to keep “critical” in critical multiplism, avoiding the objection that multiplism encourages an “anything goes” approach to theory development. Careful evaluation of alternate hypotheses should be done based on predetermined criteria about how phenomena ought to perform (Shadish, 1989). In the spirit of strong inference, multiple working hypotheses, and critical multiplism, five alternate models were hypothesized (Figures 3 - 7).

Alternate Model One

The first alternate model (Figure 3) is a five stage model with the following subhypotheses: well-being is predicted by SDNPR, significant life events, and social

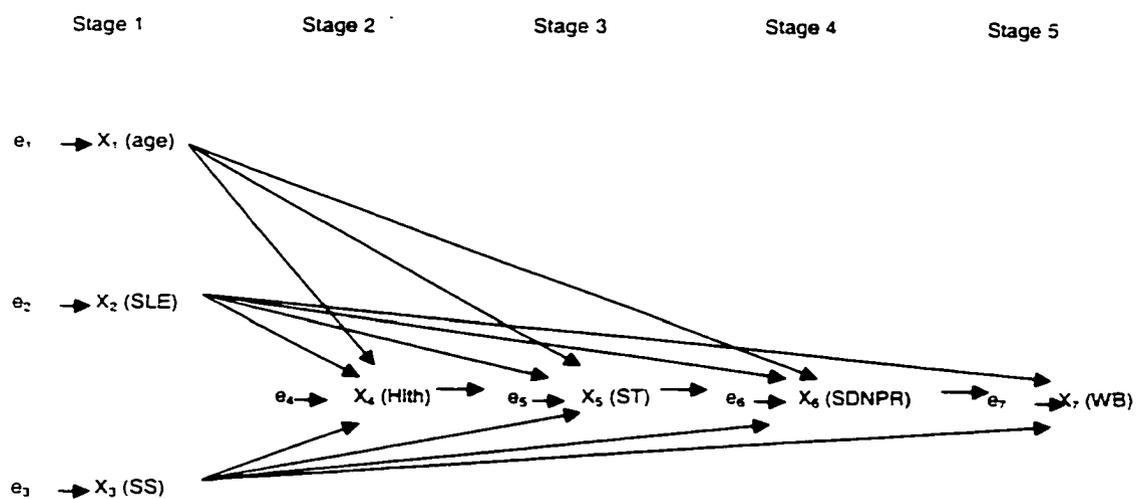


Figure 3. Alternate model one

support; SDNPR is predicted by self-transcendence, age, significant life events, and social support; self-transcendence is predicted by health, age, significant life events, and social support; and health is predicted by age, significant life events, and social support. The hypothesized relationship between well-being and SDNPR was discussed under the earlier section, “The Relationship of the Spiritual Dimension of the Nurse-Patient Relationship to Well-Being.” The relationship between patient spirituality, expressed as self-transcendence, and the spiritual dimension of the nurse-patient relationship, as defined in this study, had not been examined. The relationship was expected to be positive, because both spirituality and the spiritual dimension of the nurse-patient relationship contain elements of transcendence, relationship, and connection. The relationship between spirituality, expressed as self-transcendence, and health is hypothesized, based on spirituality as a developmental concept. As a developmental concept, spirituality may develop microgenetically, or over hours or days, as opposed to ontogenetically, over years or decades. Personal crises, such as illness or hospitalization, may provide the context for personal growth, such as enhanced spirituality or self-transcendence (Fahlberg, Wolfer, & Fahlberg, 1992). Significant life events have been demonstrated to affect health (Holmes & Rahe, 1967). Social support influences health (Sherbourne & Stewart, 1991), and age was expected to be associated with health.

Alternate Model Two

A second alternate model is a four stage model (Figure 4). The subhypotheses of this model are identical to alternate model one with two exceptions. First self-

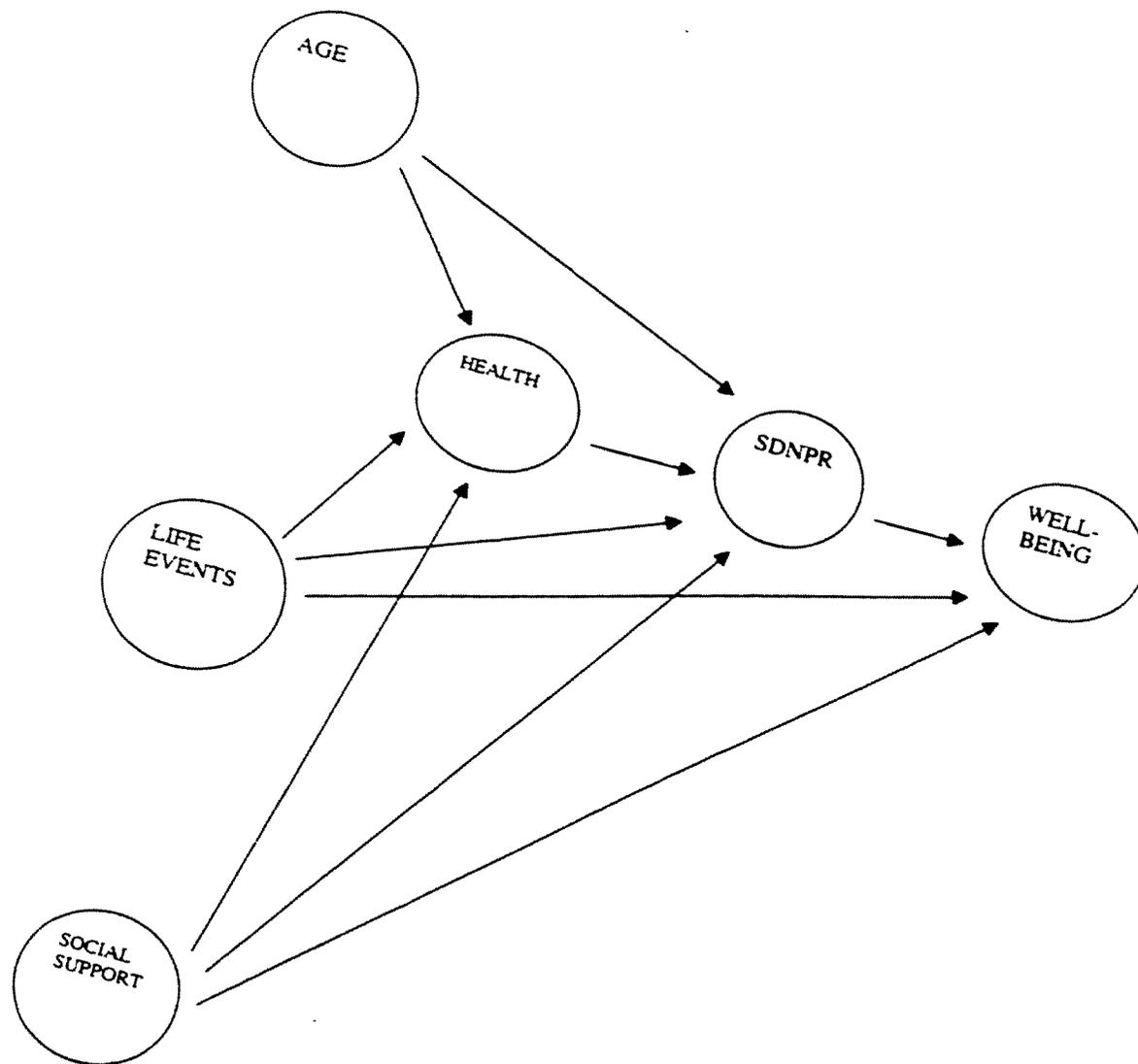


Figure 4. Alternate model two.

transcendence is removed as a predictor variable, predicting SDNPR. Second, self-transcendence is added as a manifest variable for the latent variable well-being. In the original hypothesized model and alternate model one, well-being is operationalized as a latent variable, composed of measured or manifest variables. The manifest variables are self-confidence during stress and life purpose and satisfaction (Figure 5). In the second alternate model well-being is operationalized as a latent variable, indicated by the manifest variables self-confidence during stress, life purpose and satisfaction, and self-transcendence (Figure 6). Self-transcendence was added to the latent variable well-being, based on several studies that reported self-transcendence as a well-being outcome of the nurse-patient relationship. Patients reported that certain aspects of the nurse-patient relationship led to a reintegration of their changed body and person into their lived world (Cameron, 1993). Others reported that transcending the reality of the present moment was associated with the nurse-patient relationship (Appleton, 1994; Parse, 1993).

Alternate Model Three

The third alternate model is a three stage model that is identical to the original hypothesized model except SDNPR is the dependent variable and well-being is the stage two predictor variable (Figure 7). Age, life events, social support, health, and self-transcendence are stage one variables. The rationale for transposing well-being and SDNPR is based on the view that the spiritual dimension of the nurse-patient relationship may be important to the patient's experience besides or beyond well-being. Rather than being predictive of well-being, the spiritual dimension of the nurse-patient relationship may

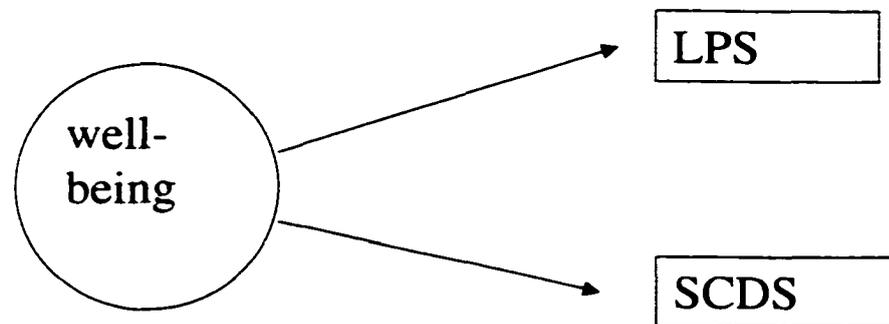


Figure 5. Latent variable model of well-being with two manifest variables.

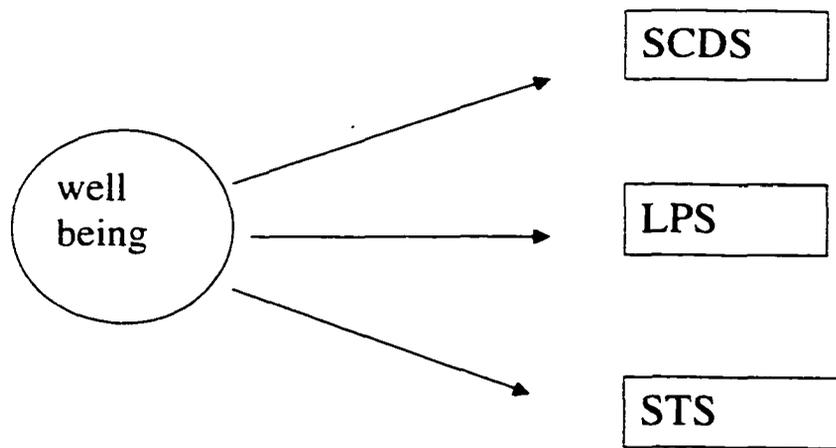


Figure 6. Latent variable model of well-being with three manifest variables.

be the outcome needed during the experience that places the nurse and patient in interaction. This alternate model is consistent with Gadow's (1985) position that care is an end in itself (Gadow, 1985, p. 5). Hypothesizing models with well-being predicting SDNPR, as well as SDNPR predicting well-being, is congruent with Rogers' principles of helicy and resonancy. The principle of helicy postulates a unidirectional, nonlinear ordering of life processes. The unitary person-environment evolves along a pandimensional curve, exhibiting cyclical similarities and rhythmicalities. The evolutionary life-process curve does not lie on a plane, nor is it restricted by space or time. The human and environmental energy fields are manifested in wavical form that continuously resonate to varying extent with the other. Human development is an example of the principle of resonancy (Roger, 1970). Although predictive potential exists because of the cyclical and rhythmical nature of the life process (Rogers, 1970), the direction of the relationship between the spiritual dimension of the nurse-patient relationship and well-being is indeterminate when viewed from a Rogerian perspective.

Alternate Model Four

The fourth alternate model (Figure 8) is a five stage model with SDNPR predicted by well-being, age, significant life events, and social support. Well-being is predicted by self-transcendence, significant life events, and social support. Self-transcendence is predicted by health, age, significant life events, and social support. Health is predicted by age, significant life events, and social support.

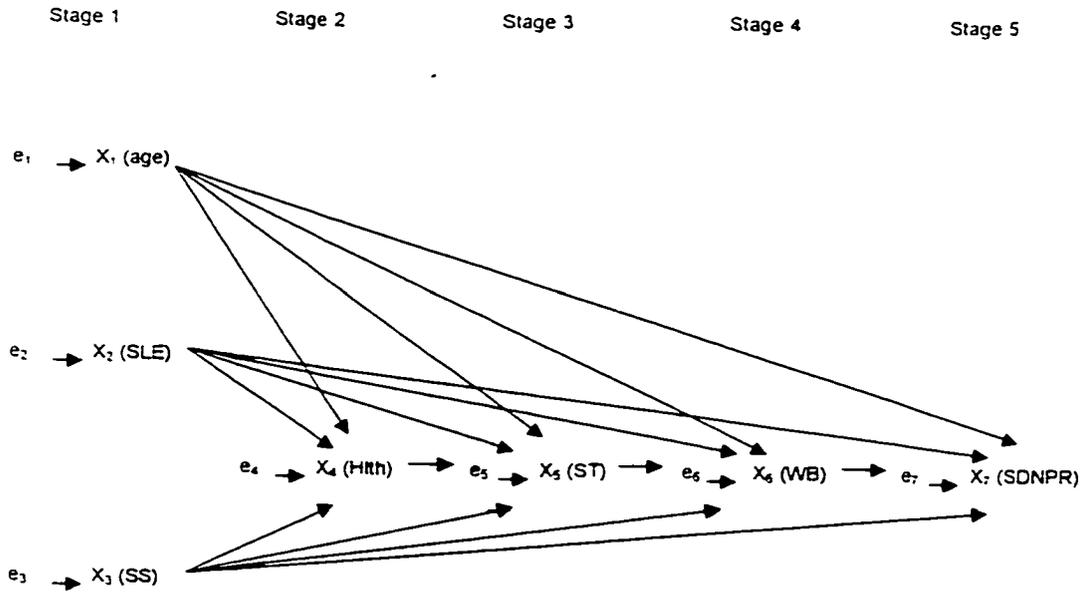


Figure 8. Alternate model four.

Alternate Model Five

The fifth and last alternate model (Figure 9) is a four stage model predicting SDNPR from well-being, age, significant life events, and social support. Well-being in this model is conceptualized as a latent variable consisting of the manifest variables self-transcendence, self-confidence during stress, and life purpose and satisfaction. Well-being is predicted by health, significant life events, and social support. Health is predicted by age, significant life events, and social support.

Summary of Hypothesized Models

An original hypothesized model was developed, derived from the theoretical framework. Five alternate models were also hypothesized, placing all plausible explanatory models in competition with each other. The six models were compared in addition to testing the goodness of fit of each model. The subhypotheses were examined only in the clearly ascendant model.

Context of Discovery

The final research question asks what nurse characteristics and behaviors do patients believe are important to their well-being. The characteristics and behaviors that patients believe to be important to their well-being may be untapped by the items of the Spiritual Dimension Inventory. While this cannot be termed a hypothesis, per se, the research question is posed to discover what nurse characteristics and behaviors are valued by the patients.

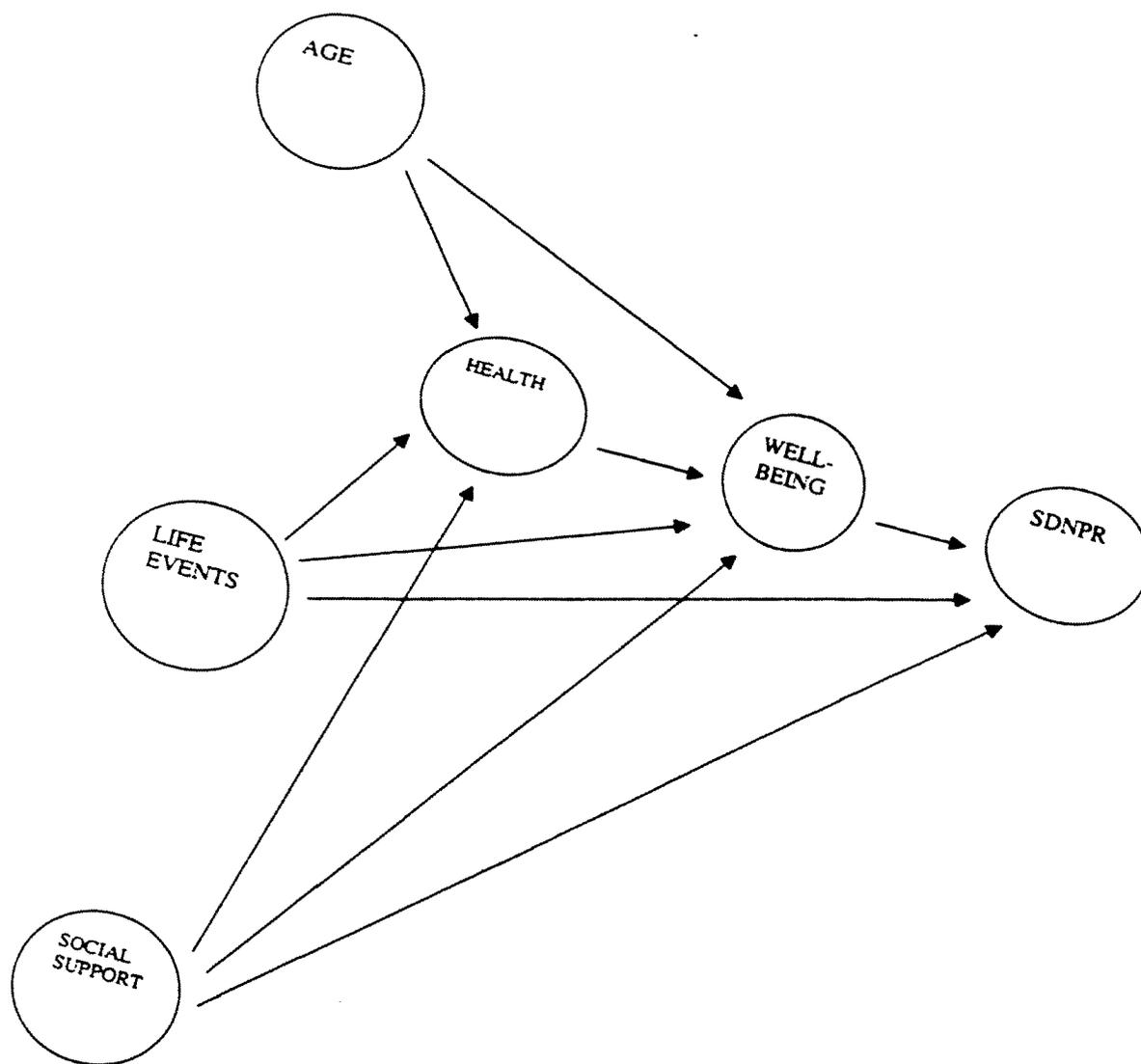


Figure 9. Alternate model five.

Reliability and Validity of the Spiritual Dimension Inventory

In order to measure the spiritual dimension of the nurse-patient relationship, the Spiritual Dimension Inventory (SDI) was developed. A preliminary determination of the reliability and validity of the SDI was done. Internal consistency reliability, both item to item and item to total scale reliability, and construct and predictive validity were examined prior to model testing.

Summary of Chapter One

Both nursing history and nursing theories are rich with a spiritual component of nurse-patient relating. The purpose of the study was to examine the influence of a patient-perceived spiritual dimension of the nurse-patient relationship on patient-perceived well-being, taking into account certain demographic and health-related variables. The spiritual dimension of the nurse-patient relationship consists of the following elements: a transcendent connection between nurse and patient; the patient's perception of the nurse's understanding and acceptance of the patient as a whole person; the patient's perception of the nurse's commitment, dedication and devotion to nursing; and the patient's trust in the nurse. The study of a spiritual dimension of the nurse-patient relationship and its influence on well-being may add meaningful information to nursing's body of knowledge of the nurse-patient relationship.

A preliminary determination of the study was that the instrument developed to measure the spiritual dimension of the nurse-patient relationship was reliable and valid.

The main hypothesis of the study was a model of the spiritual dimension of the

nurse-patient relationship and well-being. The original hypothesized model consisted of subhypotheses or relationships between variables in the model. The subhypotheses were that the patient's perception of the spiritual dimension of the nurse patient relationship (SDNPR), a constellation of five variables (**connection, understanding, acceptance, commitment, and trust**), is positively related to a perception of well-being in patients; the age of the patient is positively related to the SDNPR; significant life events are positively associated with SDNPR and with well-being; social support is positively associated with SDNPR and well being; health is positively associated with SDNPR and well being; and self-transcendence is positively related to SDNPR and well being. Variables that are assumed to influence SDNPR but were not be measured and analyzed are: the mutual process of the nurse-patient relationship; the patient's perception of similarity to the nurse; the nurse's perception of the patient's desirability; the patient's comfort with intimacy; and the patient's attitude toward the illness, hospitalization, and the nurse; developmental, nurse-related variables; the nurse's spirituality; the nurse's perception of a spiritual dimension of the nurse-patient relationship; and non-normative, developmental influences on patient spirituality. Variables that are believed to impact the SDNPR and that were controlled by the research design are the severity of the patient's illness, the patient's perception of vulnerability, the patient's perception of anxiety, the patient's mental status, the patient's perception of pain, the frequency and duration of the nurse-patient interaction, and the nurse's workload.

Variables that are assumed to influence the patient's perception of well-being, that

were not be measured and analyzed for relationship to well-being, are: the patient's attitude toward the illness, the hospitalization, and the nurse's perception of the SDNPR. Variables that are expected to affect the patient's perception of well-being that were controlled by research design are the severity of illness, the patient's perception of vulnerability and anxiety, the patient's mental status, and the patient's perception of pain.

In the spirit of critical multiplism, strong inference, and multiple working hypotheses, all tenable alternative models were hypothesized. Five models, in addition to the initial model, were specified. By subjecting the original hypothesized model to comparison with other plausible models, a more stringent examination can be executed and the likelihood of adopting an inferior theory is lessened.

The final research question of the study asked what nurse characteristics and behaviors do patients describe as important to their well-being.

CHAPTER TWO

REVIEW OF LITERATURE

The recent nursing research literature clearly supports a relationship between elements in the nurse-patient relationship and patient well-being. The spiritual dimension of the nurse-patient relationship (SDNPR), characterized by the patient's perceptions of connection, being understood and accepted by the nurse, the nurse's commitment, and trust in the nurse, has not been studied with the factors defined as they are in this study. Many studies reported in the recent literature have examined one or more of the elements of SDNPR and patient well-being. This chapter is a review of recent research that has examined one or more of the five characteristics of SDNPR and patient well-being.

The majority of the studies used qualitative methodology to explore aspects of the nurse-patient relationship (Appleton, 1994; Bottorff & Morse, 1994; Cameron, 1993; Fareed, 1996; Fosbinder, 1994; Jensen, Back-Pettersson, & Segesten, 1996; Kralik, Koch, & Wotton, 1997; Morales, 1994; Morse, 1991; Raudonis, 1993; Shubert & Lionberger, 1995; Weissman & Appleton, 1995). Two descriptive studies were reported (Clark et al., 1991; Raatikainen, 1997). Hypotheses were tested in three studies (Latham, 1996; Olson, 1995; Williams, 1997). The findings of the qualitative and the descriptive studies indicate that the elements of a spiritual dimension of the nurse-patient relationship occur with well-being. Reports of hypothesis testing investigations are inconclusive as to the influence of SDNPR on well-being.

To date no studies have been reported that clearly define and examine the

relationship of the five elements of connection, understanding, acceptance, commitment, and trust and well-being. Patient perception of connection, understanding and acceptance are the most reported aspects of SDNPR and are often represented in the literature as caring and empathy (Latham, 1996; Olson, 1995; Raudonis, 1993; Williams, 1995). Perceived nurse commitment and patient trust in the nurse as they relate to patient well-being have been reported the least in the recent literature concerning the nurse-patient relationship.

Most of the studies were conducted on hospitalized, adult, male and female patients on medical-surgical units. Few authors reported the patients' education, general health, financial indicators, social support, nationality, race, religion, religiosity or spirituality, any of which may influence SDNPR.

Well-being was usually described in the qualitative studies in positive terms such as coping, comfort, being relaxed and at ease, feeling safe and secure, confidence, and finding meaning and satisfaction in the experience. When well-being was measured in negative terms, such as lowered anxiety, depression, and anger, the effect of the nurse-patient relationship on well-being was small or not significant (Latham, 1996; Williams, 1997). A positive measure of well-being, coping effectiveness, was significantly influenced by the nurse-patient relationship (Latham, 1996).

The following review of the literature groups studies by the elements of the spiritual dimension of the nurse-patient relationship. First, the studies which examined all five elements and patient well-being are presented. Next, the findings of research studying

connection, understanding, and acceptance and well-being are reviewed. Studies that examined understanding and acceptance and patient well-being, and studies of connection and commitment and patient well-being follow. Finally, studies of connection and its relationship to well-being are reviewed. Chapter Two concludes with a summary of current research, what is known about the five elements of SDNPR and well-being, and what areas have not been researched.

Connection, Understanding, Acceptance, Commitment, Trust, and Well-Being

Nine studies have been reported that address the five elements of SDNPR (connection, understanding, acceptance, commitment, and trust) and well-being. All nine studies employed qualitative methodologies. The findings of the nine studies support that well-being is apparent when the elements of SDNPR are reported by patients.

In one study, ethological methods were used to identify types of nurse-patient interactions (Bottorff & Morse, 1994). Ethology is a research method using systematic observation under natural conditions. Complex behavior is described through the development of an ethogram (Bottorff & Morse, 1994). The sample consisted of eight cancer patients and 32 nurses. Three of the patients were female. Nurses' gender was not reported. Videotaping was done in the patient's room for 72 continuous hours for each patient. The interaction between nurse and patient from the time the nurse entered the room until exit was one interactional unit. A total of 1085 interactional units was recorded. The average interactional unit was 1.9 minutes.

Verbal and non-verbal behaviors were observed and described. In addition, the

patients and one of the nurses who had cared for each patient were interviewed.

Segments of the videotape were explored for perceptions and perceived effect of the nurse-patient interaction.

The researchers first described the interaction behaviors in detail. Behaviors were then clustered and compared with similar interactions, until specific recurring behavior patterns emerged. The use of both observation and interviews strengthened the confirmability of the data and the interpretation. Numerous excerpts of both observation dialogue and interview transcripts were used to illustrate each pattern. The clear description of systematic data collection and analysis addressed dependability by creating an audit trail. Two major categories of behavior patterns became evident: types of touch and types of attending. Five types of touch were identified: (1) working touch, used when performing tasks; (2) orienting touch, used to clarify and assess; (3) social touch, as in gentle teasing; (4) comforting touch, used to calm, soothe, quiet or reassure patients in distress; and (5) connecting touch, the nurse's use of fingers or palm for either stationary contact or light taps to physically touch the patient.

Types of attending were "doing tasks," where the nurse was focused on the equipment, the treatment, or on getting the job done; "doing with," where the focus was equally on the patient and the task; "doing for," where the focus was primarily on the patient, for example, doing extras for the patient not required of the task at hand; and "doing more" where the nurse was intensely focused on the patient, described as an engaged interaction between the nurse and the patient. "Doing more" involved the nurse

reaching out to the patient in an attempt to understand the patient's experience and acknowledging the patients' concerns and symptoms. "Doing more" was usually associated with patient distress and was described in interviews with the nurses as "being close" to the patient.

Patients described positive feelings when the nurses understood and accepted them. Patients felt that they weren't a burden to the nurse. They felt confident, comfortable and relaxed, and reported less anxiety. The findings of the study support the spiritual elements, connection, understanding, acceptance, commitment, and trust being associated with patient well-being.

The interactional units were then analyzed to identify comforting behaviors and reported in a separate publication (Bottorff, Gogag, & Engelberg-Lotzkar, 1995). The patterns of comfort observed were: soothing and relaxing the patients, relieving pain, and distracting patients from uncomfortable procedures. Comforting behaviors included the use of gentle humor, physical comfort measures, emotionally supportive statements, and comforting and connecting touch. Providing patients with the opportunity to make choices, engaging patients in social exchange, increasing physical proximity to the patient, and providing patients with information were observed to be comforting behavior patterns. The nurses' comforting behaviors were directed toward helping the patient put experiences into perspective, helping them stay in control, providing the opportunity to live a normal life, and providing emotional support. The results suggest that connection, understanding, acceptance, commitment, trust and patient well-being are observed in

nurse-patient interactions.

A study of gift-giving to nurses evolved into a study of types of nurse-patient relationships when the researchers realized that gift-giving was used to negotiate a type of relationship (Morse, 1991). The revised study sample consisted of 44 nurses who had been patients, interviewed from the patient perspective; nurse administrators; and nurses from special care areas. Clinical areas represented were psychiatry, medical-surgical, long-term care, home care and community, intensive care, pediatrics, obstetrics and palliative care. Participants ranged in age from 25 to 65; mean age was 44.4. No standard deviation was reported. All subjects except one were female.

Exhaustive interviews were conducted. Eighty-six interviews were done with the 44 participants. Fifty-nine secondary informants were then interviewed to clarify and validate the emerging theory and to strengthen credibility. Data were sorted, coded and analyzed using content analysis and grounded theory techniques. The core variable, negotiating the relationship, and five incidental variables, types of relationships, were identified. Relationships were either unilateral or mutual. A unilateral nurse-patient relationship was one where either the nurse or the patient was unwilling or unable to establish the level of relationship desired by the other. Mutual relationships had varying degrees of involvement and intensity. The clinical relationship was brief, and usually was formed when the patient was being treated for a minor condition. The patient expected just the care requested and the nurse provided care quickly and efficiently. Clinical relationships were characterized by little personal or emotional involvement.

The therapeutic nurse-patient relationship was often brief, and the patient's illness was not serious or life threatening. The patient had a support system for psychosocial needs. In the therapeutic nurse-patient relationship, the nurse viewed the patient as a patient first and as a person second.

When the nurse viewed the patient as a person first and as a patient second, a connected relationship began to form. In the connected relationship the nurse and patient had enough time to develop a bond in which the patient trusted the nurse, and the nurse advocated for the patient, going beyond routine job expectations. Patients reported relaxing and feeling safe and confident in mutual relationships.

Over-involved relationships occurred when the nurse viewed the patient as a person but was committed to the person to the exclusion of treatment goals, the physician, the institution, or responsibilities to other patients. The results of this study indicate that all five elements of SDNPR are related to well-being.

Appleton (1994) studied the art of nursing by interviewing six patients who stated they had experienced nursing as art. Patients were recruited from outpatient clinics, nursing centers, and by word-of-mouth. Additional information about the sample was not reported. The patients identified nurses with whom they had experienced the art of nursing. The nurses agreed that they had experienced nursing as an art.

Each patient and nurse was interviewed separately and then together as a nurse-patient dyad. Descriptions of the art of nursing were grouped together to form themes which were further abstracted into metathemes of values, qualities, and processes that

make up the art of nursing. Phenomenological credibility was supported by the clarity with which the art of nursing was described by both nurses and patients (Appleton, 1994). The author implied but did not make explicit that findings were reflective of patients as well as nurses.

Several recurrent themes of the art of nursing became apparent. Having a perspective of the patient as a person, viewed within the context of a whole life was one theme. Nurses with this perspective sensed and felt what the patient experienced and demonstrated compassion for the patient in need. A related theme was a person-to-person connection, characterized by mutual personal sharing. This theme was described as a synchronized union through which the reality of the moment was transcended. This transcendent togetherness entailed synchronized being, knowing, and doing, in which the nurse and patient became one.

The nurses' devotion was another recurrent pattern. Patients sensed that their nurses felt called to nursing and demonstrated professional commitment. A theme of trust paralleled the themes of devotion and holistic perspective. Patients reported trusting the nurse who respected and protected their wholeness and who portrayed personal and professional integrity.

These themes were abstracted into a paradigm which the author called the art of nursing. The metaphor "gift of self" was used to portray nursing as the giving and receiving of both nurse and patient. Patient outcomes of the gift of self were feeling comfortable, relaxed, and safe during a time of need and vulnerability. Patients noted

transcendence of the moment, feeling empowered, having confidence in their decisions, feeling positive about their abilities, and taking responsibility for their experience. The results support the proposed relationship between the five spiritual elements and well-being in terms of emotional comfort, transcendence, empowerment, self-confidence and self determination.

Interview and participant observation were used to examine patients' perspectives about what is important to them as they interact with nurses in a study by Fosbinder (1994). Forty male and female patients and 12 nurses participated in the study. Patients were hospitalized for orthopedic, pulmonary or heart conditions. Most were between 60 and 80 years of age. The nurses were all white females. No other sample information was reported.

Data were systematically collected by extended observation and interview. Nearly 400 observations, ranging between five and 20 minutes were recorded in field notes. Eighty five interviews were done, averaging approximately 40 minutes. The interviews were semi-structured and moved from broad, general questions such as asking the patients how they felt about their nursing care to more specific questions which encouraged respondents to clarify and give examples.

Data analysis was done by constant comparison. Notes were coded and sorted by key observations. Links were noted and broader categories were formed. Prolonged engagement with the participants, clear complete descriptions, use of peer researchers to validate themes and broader schemes, and member checks with the nurses addressed

credibility, transferability and auditability. Member checks with patients would have strengthened the study.

The four major categories of interpersonal competence that became apparent were translating, getting to know you, establishing trust, and going the extra mile. Themes within the categories were informing, explaining, teaching, personal sharing, humor, kidding, being friendly, “clicking;” being in charge, anticipating needs, being prompt, following through, enjoying the job, being a friend, and doing extra. Patient satisfaction with nursing was the outcome defined by the study questions. Other outcomes patients described were feeling less frightened, feeling good, knowing what to expect, feeling better, and being relaxed. The results support the proposed relationship between connection, understanding, acceptance, commitment, trust, and well-being.

Investigators reported the results of a phenomenological study of adolescents’ experience of feeling accepted by nurses (Weissman & Appleton, 1995). The sample consisted of six adolescents hospitalized for emotional problems in a private psychiatric hospital. Gender was not reported. Age range on the adolescent unit was 13 to 18 years. Interviews with each participant lasted about one hour. Investigators indicated that when saturation of data occurred, no further interviews were done. Data were analyzed by inferring themes and relating themes into statements. Measures addressing credibility, transferability, dependability and confirmability were not explicitly reported.

The data analysis revealed three themes of acceptance: friendship, well-being, and security. Elements of friendship included the nurse knowing the adolescent as a person

and was characterized by the nurse doing more than the job required. The participants trusted the nurse-friend with feelings and issues. Some of the feelings associated with acceptance were feeling cheered up, feeling better, and feeling safe, supported, and comfortable. The adolescents described gaining confidence in themselves when they were able to disclose personal feelings and clearly state their needs. The results indicate that connection, understanding, acceptance, commitment, and trust are associated positively with well-being, in terms of self-confidence during stress and general emotional well-being.

Engagement and detachment were the two major themes which emerged when patients were asked to describe their experiences of nursing care in a study by Kralik, Koch, and Wotton (1997). Nine women who had undergone total hip replacement surgery were asked what was important to them about the nursing care they had received and in what way they felt nursing care had affected them. The researcher had not purposefully sought women for the study. The women were interviewed before and after their surgery, both in the hospital and at home following discharge over a three month period. Interviews continued until strong themes emerged. Systematic data collection, coupled with systematic data analysis, using a seven-step framework addressed the study's credibility.

Rich descriptions of actual responses were used to illustrate the themes. Clear, thorough descriptions promote transferability of findings to other contexts. The study reported specific methodology to provide for auditability. Confirmability was not

addressed in the report of the study.

In addition to the two major themes of engagement and disengagement, several minor themes became apparent. They were “nothing was too much trouble,” “asked me and consulted with me,” “cheerful and uses humor,” “kind and compassionate,” “knows what I want without asking,” “always available,” “gentle touch,” and “friendly and warm” (Kralik et al., 1997, p. 401).

Engagement occurred when the nurses spent time with the patient and when the humanness of both was disclosed. The women described being understood as individuals, but also knowing the authentic self of the nurse, and accepting the nurse as a human being. Engaged nurses were described as treating the patient like a friend and as genuinely liking the patient.

Patients described emotional comfort and feeling relaxed when experiencing engagement. They noted feeling less isolated, trusting the nurses, feeling secure and sensing that the nurse cared about them. The findings of this study indicate that all elements of SDNPR are associated with well-being.

Patients’ perceptions of the excellent nurse (Jensen, Bäck-Pettersson & Segesten, 1996) were examined in a descriptive-exploratory study. Ten Danish women who had previously undergone breast cancer surgery and who were currently undergoing treatment in community settings were interviewed. The women ranged in age from 41 to 60 years. Mean age was 50.3; the standard deviation was not reported. The surgery had occurred one and one-half to 17 years before the interview. The average length of time between the

surgery and the interview was 5.7 years (standard deviation not reported).

Interview were semistructured. The women were asked to describe the characteristics of an excellent nurse and to describe a caring situation which involved a nurse. The interviewer focused on eliciting the meaning of the experience, encouraging details of feelings, reactions and reflections. Participants were encouraged to leave nothing out.

Data were analyzed by examining transcripts for essential points, identifying major themes, clustering themes, connecting themes into concepts, and finally describing the essence of the phenomenon described. Credibility and confirmability were not clearly addressed. Examples of interviewer's probes to elicit a complete description were not included in the report.

The four main characteristics of an excellent nurse were competence, compassion, courage, and concordance. Knowledge and skills were the essence of competence. Compassion was described as expressing unconditional love, warmth, interest in the patient as a person, and treating the patient as a human being. Concordance encompassed a caring connection, harmony, and trust. Courage was demonstrated by facing crises and death with the patient, inspiring hope, and helping the patient find meaning in difficult situations. In addition to finding meaning in difficult situations, patients described feeling secure and comfortable with the nurse. The results of this study support the hypothesis that all five elements of SDNPR are positively related to well-being.

Patients' perspectives of reassurance was the focus of a phenomenological study

(Fareed, 1996). Eight medical-surgical patients who had experienced reassurance were interviewed. Age and gender were not reported.

Trustworthiness of the data and credibility were enhanced through systematic data collection and analysis. Academic colleagues reviewed the process and concurred with the decision trail. Member checks were planned but unable to be done because the patients were discharged. Rich descriptions strengthened transferability to different situations. The inclusion of the interview questions and examples of probes enhanced auditability.

Reassurance was described by the subjects as the nurse creating a relaxed environment without rigid rules. The nurse's understanding of the patient's experience was key to feeling reassured. Patients described the nurse's warm tone of voice, sitting on the bed, smiling, and touching them in an affectionate way as being reassuring. When patients trusted the nurse's competence and accessibility they felt reassured. Patients felt reassured when nurses gave them information and explanation about their illness or treatment.

Being reassured allowed patients to feel more in control, more secure and less afraid of the known and the unknown. Phrases such as feeling at ease, having their mind at rest, and being at peace were used to describe reassurance. Patients described feeling happy and feeling good inside. One patient described feeling that there was a purpose in the hospital experience.

Reassurance as presented in this study was both process and outcome. The findings support an association between SDNPR and well-being elements of satisfaction

with life in the moment and confidence in one's ability to cope with the experience.

The authors of these nine studies which examined the nurse-patient relationship directly or indirectly reported that patients experienced connection, understanding, acceptance, commitment, trust, and well-being. All nine studies used qualitative methodology to explore the nurse-patient relationship. The findings support that patients identify the five elements of SDNPR and that these spiritual components promote elements of patient well-being.

Connection, Understanding, Acceptance, and Well-Being

Four studies examined connection, understanding, acceptance, and well-being. Three of the studies were exploratory designs using qualitative methods. One investigation tested a predictive model of factors that influence coping. The four studies support patient recognition of the importance of connection, understanding, and acceptance to well-being.

Latham (1996) examined the influence of professional nurse support and holistic caring on psychological distress and coping effectiveness by means of a structural equation model or causal model. The sample consisted of 120 acutely ill, hospitalized, male and female patients on medical units, aged 25 to 65. The subjects had been hospitalized from two to fourteen days; the average length of stay was 4.6 days. The majority (70%) of the respondents indicated that they were moderately religious or spiritual.

Patient perception of professional nurse support was measured by the Supportive Nursing Behavior Checklist (SNBC), a 36 item, Likert-type, summated rating scale. Each

item has two responses. The first response measures the importance of the supportive behavior, and the second response rates how often the subject encountered the nursing action. Cronbach's alpha for the SNBC was 0.97 in the reported study. Discriminant validity was reported elsewhere (Latham, 1996).

Holistic caring was defined as a basic type of caring, which prevents dehumanization by viewing the patient as a whole person with the right to respect and freedom to make choices. Holistic caring was measured by the Holistic Caring Inventory (HCI), a 39 item, Likert-type, summated scale. The HCI has four caring subscales: physical, interpretive, spiritual, and sensitive caring. Physical, interpretive, spiritual, and sensitive caring were not defined. Chronbach's alpha for the subscales was 0.89 to 0.91.

Coping strategies were measured by the Coping Strategies Inventory (CSI), a 49-item, 4-point, summated scale, consisting of three subscales: problem-focused coping (24 items), emotion-focused coping (22 items), and spiritual coping strategies (3 items). In the reported study, Cronbach's alphas were 0.95, 0.90, and 0.84 respectively.

Psychological distress was measured by the Brief Symptom Inventory (BSI), designed to measure clinically relevant psychological distress. The BSI is a 53 item, five point scale. Reliability coefficient alpha was 0.95 in the reported study. The BSI is a shortened version of another instrument, the SCL-90-R, which has well documented validity and reliability (Latham, 1996).

Coping effectiveness was measured by the McNett Coping Effectiveness Questionnaire (MCEQ), a 9 item, Likert-type scale. The MCEQ measures the degree to

which coping strategies influence a person's well being or level of functioning and if coping behaviors are effective or adaptive. Construct validity for the instrument had been reported in another article (Latham, 1996). The reliability coefficient in the present study was 0.94.

A relationship was supported between the patient's perception of professional nurse support and coping effectiveness ($\beta = 0.30, p < 0.01$) and between the patient's perception of patient-focused sensitive caring and coping effectiveness ($\beta = 0.26, p < 0.05$). The patient's perception of interpretive care and patient-focused spiritual care received predicted spiritually focused coping strategies ($\beta = 0.29, p < 0.01$ and $\beta = 0.32, p < 0.001$). In addition, significant indirect relationships were found between the patient's perception of professional nurse support and coping effectiveness, mediated by psychological distress and by cognitive appraisal ($\underline{r}^2 = 0.167, p < 0.05$). Nurse support increased the percent of variance in coping accounted for by 7% when added to the regression equation. A significant indirect relationship was reported between patient perception of professional nurse support and coping effectiveness, mediated by problem focused coping ($\underline{r}^2 = 0.387, p < 0.05$). Professional nurse support increased the percent of variance in coping accounted for by 7%. In sum, the results of this study suggested that connection, understanding, and acceptance, as perceived by the patient in the nurse-patient relationship, related positively to well-being, both directly and as mediated by coping strategies.

Raudonis (1993) used a naturalistic field study design to explore the meaning and

impact of hospice nurses' empathy. The sample consisted of 14 terminally ill persons who had been receiving hospice care for three weeks to 17 months. The five men and nine women were between 44 and 86 years of age ($M = 67$). No standard deviation was reported. One of the participants was African American and 13 were Caucasian. Twelve patients had cancer. One had chronic obstructive pulmonary disease. One had acquired immunodeficiency disorder.

Data collection was done by interview, using a strict interview schedule with specific probes to elicit clarification. The hospice patients were asked to tell about a time when they felt that the nurse understood them and their needs, and what that meant to them. Data reduction and coding were done by latent content analysis and constant comparison to identify categories and subcategories. Credibility was enhanced by having two participants validate findings and interpretations. Dependability and auditability were supported by the use of an interview guide and by having the coding consistency checked by three other researchers. Rich descriptions were reported as illustrations of categories, which strengthened the transferability of findings to other situations.

The development of the empathic relationship was noted to develop through reciprocal sharing and the revealing of the personhood of both the nurse and the patient in a context of caring and acceptance. The meaning of the empathic relationship consisted of affirmation as a person and friendship. When hospice patients were acknowledged as individuals and persons of value they felt affirmed. Patients described being understood as their true spirit or being. They noted feeling like a person who happened to be living with

cancer, rather than feeling like a cancer patient. When patients described feeling understood, they reported an attachment or connection with the nurse, an intense deep, meaningful relationship based on the nurse's sharing of self and personhood.

Patients who felt understood noted both physical and emotional well-being associated with the empathic relationship. Patients described relief from pain and other discomfort, such as shortness of breath. Other outcomes were hope and relief from despair, feeling safe, having a positive attitude or outlook, and coping with their difficulties. Thus, the results support the proposed relationship between connection, understanding, acceptance, and well-being.

Nurse-patient interaction was explored in a study of nurses in private practice who used counseling, teaching, and touch (Schubert & Lionberger, 1995). Twelve nurses were interviewed. During the interview the nurse was asked to recruit several first time patients. Eighteen patients participated in the study. The nurses ranged in age from 31 to 65 and all were female. Their practice backgrounds were operating room, intensive care, pediatrics, obstetrics, community, and psychiatric nursing. Ten of the nurses had held or currently held administrative or faculty positions; two were staff nurses. Patient age and gender were not reported. The patients were well educated. Three patient participants had no health problems, and seven had a chronic disorder for which the nurse's expertise was an adjunct to medical care.

Nurses were asked how they interacted with patients. Patients were interviewed within two weeks of their first session with the nurse, at six weeks, and again at three

months. They described the interaction with the nurse and their perceptions of healing over the three month period. Nurse-client descriptions of interactions were formed and grounded theory techniques were used to analyze these interaction stories. Categories were generated until saturation was evident. Conceptual linkages were then formed through constant comparison. Three research colleagues validated the interpretation. Systematic data collection and analysis enhanced credibility; however, the researchers did not report taking the findings back to the participants to verify the theory of mutual connectedness. The use of many excerpts of actual clients' words strengthened transferability.

Mutual connectedness was the main theme which became apparent. Mutual connectedness was defined as a joining of the nurse and patient, with the objective of health or healing. The nurse and patient got to know one another by sharing their personal and private worlds. The researchers termed this quality of the nurse-patient relationship intimacy. Healing was another theme that emerged from the data and was described as a positive change in many aspects of life, such as changes in symptoms, attitudes, energy levels, and release of tension and conflict. The results of this study lend support to the existence of a relationship between connection, understanding, acceptance, and patient well-being.

The meaning of nurse's touch for Puerto Rican patients hospitalized for cancer was the focus of a study by Morales (1994). Data were gathered and analyzed utilizing an ethnographic design of participant observation and interview. Eight patients, three female

and five male, ranging in age from 17 to 54, participated in the study. The majority (62%) were in the first month of diagnosis of cancer.

Data were collected over a one month period. An interview guide was used to ensure systematic data collection. Prolonged engagement and persistent observation enhanced credibility. Clarification interviews were done during the study to strengthen credibility and confirmability. Data analysis of field notes and interviews, using content analysis, was done to identify domains, or patterns of behavior, and the meaning of nurses' touch to the patients. The relationship among the domains was explored by theme analysis. The author did not report methods used to validate the trustworthiness of the interpretation.

Two types of touch were described by the study participants: procedural touch and affective touch. Procedural touch was touch occurring in association with nursing assessment and procedures. Affective touch was described by patients as the touch which relatives used with them. Affective touch indicated love. Patients who experienced affective touch felt reconnected to the outside world and reaffirmed that they were not alone. Self-confidence and hope in the possibility of recovery were associated with the nurse's touch. Patients reported that feeling accepted as a person through the nurse's touch enhanced their ability to cope. The findings from this study support a relationship between connection, understanding, acceptance, and well-being in the patient-family relationship and in the nurse-patient relationship.

Of the four studies that investigated connection, understanding, acceptance, and

well-being, three were exploratory in nature. The findings of these three studies support that connection, understanding, and acceptance are qualities in the nurse-patient relationship that are associated with well-being. The findings of the fourth study that tested a model of predictors of coping, indicate that connection, understanding, and acceptance explain a small proportion of the variance (7%) in well-being.

Understanding, Acceptance, and Well-Being

Three studies examined understanding, acceptance, and well-being. The research designs of the three studies were bivariate correlation and regression analysis, canonical analysis, and grounded theory.

Williams (1997) examined the relationship between patient anxiety and the extent to which patients perceived patient-focused holistic care. The correlational study's sample consisted of 94 hospitalized cancer, cardiac, and pulmonary patients who had been hospitalized between two days and two weeks; the mean number of days of length of stay was not reported. The subjects were all adults, over the age of 18, but neither age range nor mean was reported. Gender and race were not reported.

Patient perception of holistic caring; or caring related to physical, psychologic, sociocultural, and spiritual needs; was measured using the Holistic Caring Inventory (HCI). The HCI is a 40 item, summated, four-point, Likert-type rating scale with four subscales. Each subscale contains ten items. The subscales are patient perception of physical caring, psychologic caring, sociocultural caring, and spiritual caring. The subscale caring dimensions were not defined. Validity was reportedly determined;

however, neither the type of validity nor the reference were included. The reliability of the HCI in the study being reported was between 0.87 for spiritual caring and 0.97 for the overall HCI scale.

State anxiety was measured by the State-Trait Anxiety Inventory (STAI); a 20 item, four-point, Likert-type, summated scale; measuring self-reported, transient anxiety. The STAI was reported to be valid, although no details or reference were given. The reliability coefficient in the reported study was 0.92.

Anxiety and patient perception of holistic caring were negatively correlated ($r = -0.27, p < 0.05$). Significant correlations of subscales with anxiety were as follows: (1) Patients' perception of physical caring was negatively correlated with anxiety ($r = -0.31, p < 0.005$), and (2) patients' perception of sensitive caring was negatively correlated with anxiety ($r = -0.29, p < 0.01$). To summarize, anxiety decreased as patients perceived physical, sensitive, and overall holistic caring.

When subject-related variables were included in a regression on anxiety, the added explanation of anxiety by patients' perceptions of caring was minimal. Age, gender, length of stay, self reported level of pain, and trait anxiety accounted for 52% of the variance of anxiety ($r^2 = 0.52, p < 0.0001$). When perception of holistic caring was added, the percent of variance accounted for increased by only 0.03 ($r^2 = 0.55, p < 0.05$). When perception of physical caring was added, the percent of variance accounted for increased by 0.06 ($r^2 = 0.61, p < 0.005$). Findings from this study indicate that patients' perceptions of caring explain a very small proportion of anxiety in hospitalized patients, and that physical caring,

more than other dimensions of holistic caring, lessens anxiety. Although the effect was small, support is evident for patients' perceptions of physical care and competence in lessening anxiety. Thus, this study does not support the proposed relationship between the spiritual elements, understanding and accepting the patient as a person and patient well-being.

The relationship between empathy and patient distress was studied by Olson (1995) in a sample of 70 nurses and 70 patients on medical-surgical units. The nurses ranged in age from 22 to 49, mean age was 33.04 (SD = 8.39). Approximately two-thirds of the nurses were female. The patients were between 18 and 92 years of age ($M = 59$; $SD = 18.2$). The patients were nearly equally male and female. Patient perceived empathy, defined as the patient feeling understood and accepted by the nurse, was measured using the 16 item, patient-perceived empathy subscale of the Barrett-Lennard Relationship Inventory (BLRI). The author reported that the reliability of the subscale had ranged from 0.64 to 0.92 in earlier studies, but reported neither the type of reliability in the past studies nor the reliability for the study being reported. Validity was reported to have been addressed in nine studies in terms of internal consistency. External validity was not discussed.

Nurse-expressed empathy was measured, using the Behavior Test of Interpersonal Skills (BTIS). In the BTIS nurses' verbal responses to 13 videotaped patient situations are audio-recorded and analyzed for response to a feeling being expressed by a patient or the reason for the feeling and for response to the content of what the patient expressed.

Nurses' responses are categorized into one of three subscales: (1) feeling, (2) content, and (3) don't feel.

Patient distress was measured by the Profile of Mood States Inventory (POMS) and the Multiple Affect Adjective Check List (MAACL). The POMS is a 65 item, five-point scale consisting of six subscales: tension, anger, fatigue, depression, confusion and vigor. Reliability was reported to be high, including internal consistency; although no coefficients were reported. Both content and concurrent validity were noted to have been supported in other studies.

The MAACL is a 132 item scale, comprised of three subscales of anxiety, depression and anger. Reliability and validity were reported to be well supported with no further information reported. Reliability coefficients were not given for the study being reported.

A canonical correlation was performed with the dependent variables, anger, anxiety, and depression, measured by POMS and MAACL. The independent variables were nurse expressed empathy and patient perception of nurse empathy. One canonical correlation was significant ($r_c = 0.71$, $p = 0.0002$). Patients of nurses who scored high on responding to a feeling or the reason for a feeling, scored high on nurse expressed empathy; and patients who perceived nurses as understanding and accepting, had lower levels of anxiety, depression, and anger. Thus, these results lend support to the proposed relationship between the spiritual elements represented in this study, understanding and acceptance and emotional well-being in terms of lowered anger, anxiety, and depression.

The nature of comfort to hospitalized medical-surgical patients was explored by Cameron (1993). The study used grounded theory methodology. Ten participants participated in the study, which was done over a seven month period. Several participants were discharged and readmitted during the study period. All participants were interviewed and observed during times of distress as well as times of relative stability. Age and gender of the ten participants were not reported.

Both in-depth, open-ended, unstructured interviews and participant observation were used to collect data. The researcher maintained a reflective journal in addition to a diary of the study's progress. The journal included the researcher's thoughts, feelings, and ideas focused on the research questions, the phenomenon, links in the data, and possible directions to take with the study. These techniques foster credibility and dependability.

Starting with the first interview and observation, the data were analyzed by open coding using the informants' own words. Codes were constantly compared with other codes and formed into categories. The properties of the categories were explicated and categories were linked, resulting in a substantive theory which explained the data. The findings were sent to some of the informants, who felt that the theory explained their experience in a profound way. When the study was shared with other researchers, nurses, and former patients, they agreed that the theory described their experiences with illness and hospitalization.

The study participants indicated that discomfort occurred when they were separated from their familiar life and faced with the hospital culture without personal

resources such as their support network. The substantive theory of integrative balancing that evolved from the data was an active process with both intrapersonal and interpersonal dimensions, through which the individuals began to integrate the institutional rules and expectations into their daily life. The interpersonal dimension involved not only nurses but other patients as well. Aspects of the nurse-patient relationship assisted the participants to find meaning in the experience. Understanding and accepting the patient as a person rather than focusing on the affected system was an essential characteristic of nurses who facilitated the patient's integrative balancing. The focus of integrative balancing, however, was individualistic. The theory primarily encompassed strategies the individual used to achieve comfort. The nurse's role was mainly to support the individual in monitoring the environment, networking with other patients, and finding personal strength to endure. The subjects achieved comfort by changing initial ideas about their hospital experience and by their ability to cope. The spiritual elements of understanding and acceptance were important to the well-being elements of coping and comfort, thus lending support to the hypothesis of this dissertation study.

The results of these three studies of understanding, acceptance, and well-being lend some support to an association between these variables, but they also raise doubts. When understanding and acceptance were added to a regression equation with other predictor variables (age, gender, length of hospital stay, pain, and trait anxiety), understanding and acceptance increased the variance in well-being by only 3%. When physical caring was added to the regression, the percent of variance increased by another

6%. These results suggest that physical caring is more important to well-being than understanding and acceptance, but that neither physical, emotional, nor spiritual caring greatly influence well-being. The results from the grounded theory design indicate that the nurse's understanding and acceptance facilitate well-being, but that individualistic, intrapersonal strategies were more important. On the other hand, the findings of the canonical analysis of the relationship between understanding and acceptance and well-being strongly support an association between elements of SDNPR and well-being.

Connection, Commitment, and Well-Being

One investigation examined connection and commitment and their relationship to well-being, but from the nurse's perspective (Raatikainen, 1997). The descriptive study surveyed nurses regarding commitment to nursing and selected aspects of nursing care. One hundred and seventy nine nurses from five hospitals in Helsinki returned questionnaires, constituting a 70% response rate. The nurses' age and gender were not reported. Data analysis was done by first dividing the sample into two groups: those who indicated that they were committed to nursing and experienced it as a calling and those who did not. Forty-six percent indicated that they were committed to nursing and felt that it was a calling, compared with 54% who neither considered themselves committed to nursing nor believed that nursing was their calling. The two groups were then compared for responses to questions about nursing actions used in patient care and beliefs about their practice. Fifty-six percent of the nurses who were committed to nursing and experienced it as a calling reported that they were able to improve the well-being of their

patients, compared with 34% of those who did not experience a calling ($\chi^2 = 8.5$, $p = 0.004$). More nurses who experienced a calling felt that a close relationship with the patient was enriching (56%). Thirty-nine percent of nurses not experiencing a calling replied that a close relationship with the patient was troubling ($\chi^2 = 4.94$, $p = 0.026$). Nurses with a calling reported experiencing a highly connected relationship with the patient (51%), compared with 33% of nurses not experiencing a calling ($\chi^2 = 5.88$, $p = 0.053$). This descriptive study adds to the understanding of commitment, connection, and well-being, but from the nurse's perspective. This study does not contribute to understanding the impact of commitment and connection on well-being from the patient's perspective.

Connection and Well-Being

One descriptive study examined connection and well-being. The descriptive study of spirituality and quality care was done by Clark and colleagues (1991). The sample consisted of 15 adults who had been hospitalized for cancer surgery or heart disease within six months prior to the interview. Ten of the study participants were men; five were women. All were Caucasian and of Judeo-Christian faiths. Their ages ranged from 55 to 80. Mean age was 59; no standard deviation was reported.

Structured interview questions were used to collect data. Decisions underlying data collection and analysis were not clearly delineated in the report of the study, for instance, the authors did not explain how the sample size was determined. Methods used by the investigators to code interview responses and to enhance inter-rater reliability were

not reported, making confirmability and auditability difficult to assess. Terms such as well-being, presence of the nurse, and care-giving activities were not clearly defined. Data were analyzed by descriptive statistics.

When asked what one event contributed to their sense of well-being or provided hope for recovery, one third of the patients identified the presence of nurses and the nurses' activities, such as being attentive, answering questions, and having an upbeat and encouraging attitude. Another one third of the participants reported that significant others such as family, friends, and clergy were most important to their well being. When asked to explain experiences, situations, or relationships that would have helped their sense of well-being and/or provided hope; three fourths of respondents indicated that family, friends and clergy provided the greatest sense of well-being during hospitalization. This study is important because of the finding that the support of friends, family and clergy contributed to well-being more than connection with the nurse.

Summary of Chapter Two and Conclusions

In the recent nursing research literature no studies have been reported that clearly define and examine the relationship of the five elements of connection, understanding, acceptance, commitment, trust, and well-being. Patient perception of connection, understanding, and acceptance are the most reported aspects of the spiritual dimension of the nurse-patient relationship and are often represented in the literature as caring and empathy (Latham, 1996; Olson, 1995; Raudonis, 1993; Williams, 1995). Perceived nurse commitment and trust have not been explicitly studied in the recent literature addressing

the nurse-patient relationship. The majority of authors did not report the patients' general health, social support, life experiences, or spirituality, which may influence the spiritual dimension of the nurse-patient relationship. The vast majority of the studies used qualitative methodologies to discover elements of the nurse-patient relationship that were important to patient well-being. These studies did not examine the relationship among variables, but sought to understand the relationship. The elements of connection, understanding, acceptance, commitment, and trust were evident in these studies.

The results from a regression analysis of caring and coping and a causal model of caring and anxiety support a relationship between understanding, acceptance, connection, and well-being. The results of a canonical correlation between empathy and psychological distress support a correlation between understanding, acceptance, and well-being.

The present study was designed to augment existing knowledge by examining the relationship between the five spiritual elements of connection, understanding, acceptance, commitment, trust, and well-being, while including the influence of general health, significant life events, social support, and self-transcendence as well.

CHAPTER THREE

METHODOLOGY

This chapter presents the procedures that were employed to examine the impact of the patient's perception of a spiritual dimension of the nurse-patient relationship (SDNPR) on patient-perceived well-being, taking into account certain demographic and health-related variables. The research design was a structural-equation model, consisting of measurement models and the structural-equation or path model.

Adult, hospitalized individuals experiencing serious illness and/or surgery were recruited for the study. Data were collected by subject-completed questionnaires and an investigator-completed health information form. Data were analyzed by confirmatory factor analysis, using EQS for Windows, Version 5.7b and multiple regression analysis, using SPSS for Unix, Release 6.14. Nested model comparisons were done to determine the measurement model and structural equation model that best fit the data. The data from the open-ended questions were analyzed by content analysis.

Research Design

The research design for this study was structured to answer the question of the relationship between SDNPR and patient well-being. The research design was a nonexperimental, one-group, one-measurement, predictive/causal model or structural equation model design. The model consisted of manifest (observed) variables and latent (unobserved) variables. The study variables were: age, significant life events, social support, health, self-transcendence, SDNPR, and well-being. Age and significant life

events were observed, manifest variables. The remaining variables were unobserved, latent variables (Table 3).

A first step was to test three measurement models of SDNPR, based on *a priori* theory, to examine the construct validity of the instrument. Then, structural equation modeling was used to test the original hypothesized model and five competing structural equation models (SEM) of age, life events, health, social support, self-transcendence, SDNPR, and well-being, hypothesized from *a priori* theory, were tested. These models were tested for both for goodness of fit with the data, and compared with the competing models. The subhypotheses of each SEM or the relationships between the variables in the models were examined only in those models that best fit the data. In addition to the structural equation model testing, the relationships between variables in the original hypothesized path model were tested by regression analysis. Two open-ended questions were used to explore nurse characteristics and actions that the patient believed were important to well-being.

Measurement Models

Measurement models measure latent variables, using manifest variables as indicators (Ferketich & Verran, 1990) and establish construct validity of latent scales (Ferketich, Figuerdo, & Knapp, 1991). Measurement models of constructs measured by established instruments (social support, health, self-transcendence, and well-being) were not tested, as the construct's validity had been supported in prior research. Three measurement models of the SDNPR, based on *a priori* theory, were specified and tested

Table 3

Concepts, Constructs, Instruments

Construct	Concept	Instrument
Unobserved or Latent Variable	Unobserved or Latent Variable	Observed or Manifest Variable
Social Support	Emotional Support Informational Support Affection Tangible Support Positive Interaction	Medical Outcomes Study- Social Support Survey (MOS-SSS)
Spirituality	Self-Transcendence	Self-Transcendence Scale (STS)
SDNPR	Connection Understanding Acceptance Commitment Trust	Spiritual Dimension Inventory (SDI)
Well-Being	Life Purpose and Satisfaction Self-Confidence During Stress	Inventory of Positive Psychological Attitudes (IPPA-32R)

(Figures 10-12), because it is a new instrument. The first measurement model, a higher order factor model, hypothesized a higher order factor, the spiritual dimension, which explains or underlies five factors: **connection, understanding, acceptance, commitment and trust** (Figure 10). This model is most strongly supported in the research literature.

The second measurement model, a stage model, proposed a stage theory of SDNPR. Five invariant stages progress from **commitment to connection, understanding, acceptance, and trust** (Figure 11). In this linear model earlier stages are accomplished before the nurse-patient relationship progresses to the next stage. For example, **commitment precedes connection**. *A priori* theory neither strongly nor clearly supports this model; however, a developmental view of the spiritual dimension of the nurse-patient relationship justifies testing this model.

The third measurement model, a fully correlated model with no higher order factor, asserted that the five separate elements of SDNPR are all correlated (Figure 12). In this model of the SDNPR, the five elements occur and interact simultaneously. Research to date that supports the existence and association of these five components of the nurse-patient relationship warrants examining a fully correlated model of SDNPR.

The measurement models were analyzed by confirmatory factor analysis. EQS for Windows, Version 5.7b was the statistical software package used. In summary, an analysis of measurement models of SDNPR was done to answer the question of what attributes comprise the spiritual dimension of the nurse-patient relationship in the study sample and how these attributes are related (construct validity).

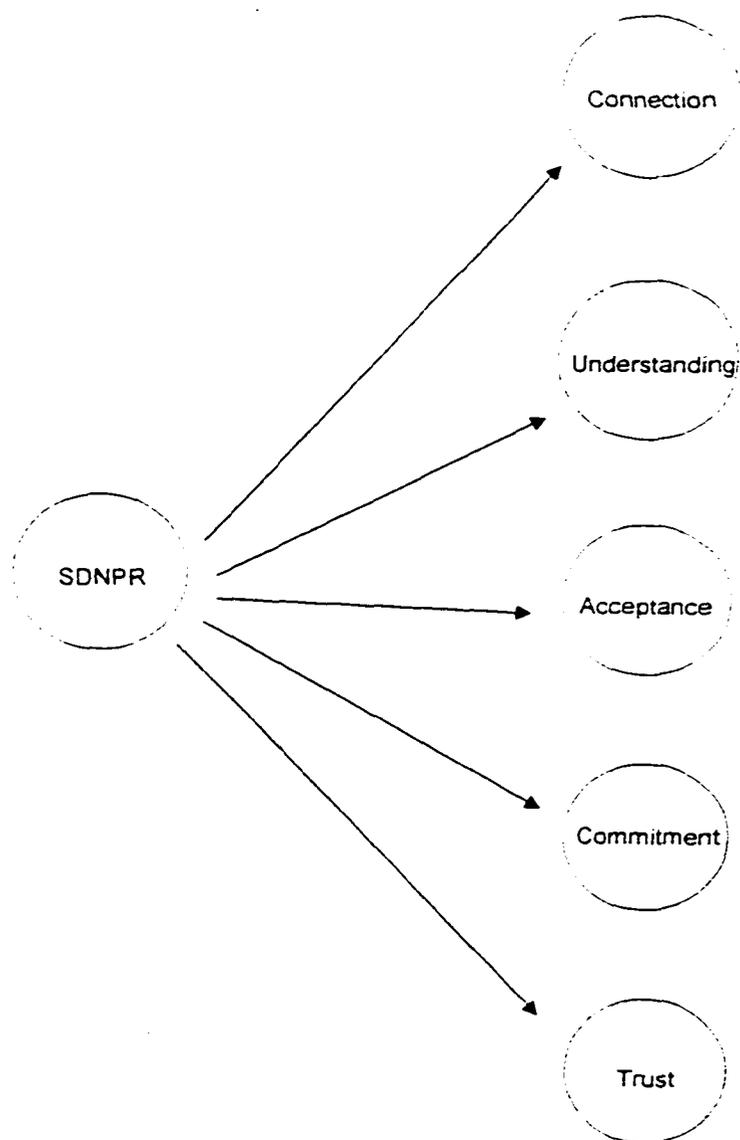


Figure 10. Higher order factor measurement model.

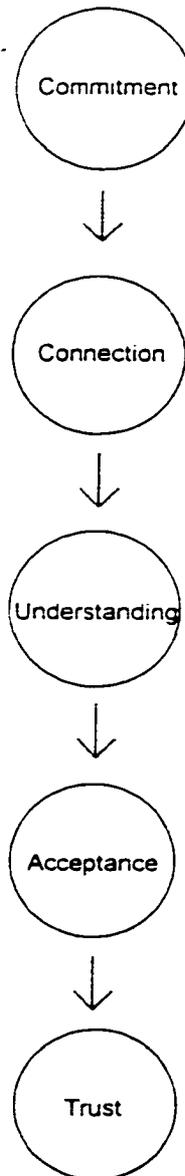


Figure 11. Stage measurement model.

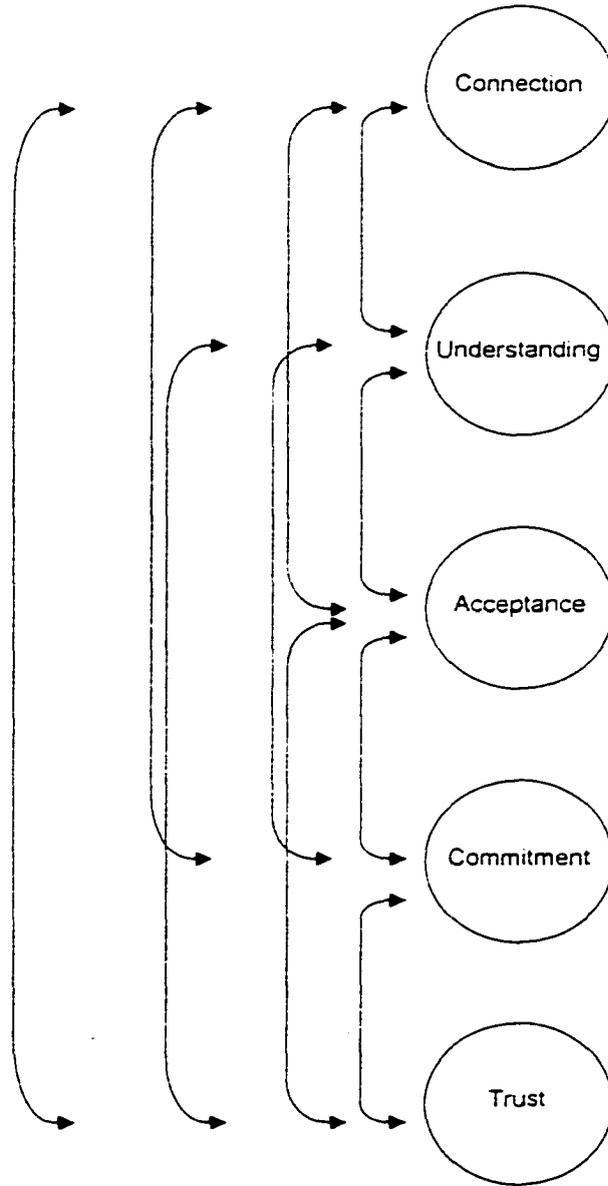


Figure 12. Fully correlated measurement model.

Structural Equation Model

Analysis of the structural equation models was done to answer the question concerning the influence of the attributes of SDNPR on patient-perceived well-being (predictive validity). The structural equation models provide information about the relationship of the SDNPR to patient well-being, while taking into consideration the role of certain demographic and health-related variables.

The structural equation models of the hypothesized relationships between the variables were analyzed, using confirmatory factor analysis, using EQS for Windows, Version 5.7b. A structural equation model (SEM) research design permits the study of phenomena as they naturally occur without control or manipulation. A SEM, also called a predictive or causal model, is a set of hypotheses that seek to explain phenomena. The basic building blocks of the model are variables of cause and effect and their hypothesized relationships. The validity of causal hypotheses is determined by the fit between the theoretical model and empirical data (Ferketich & Verran, 1990).

Original Hypothesized Model

First, the original hypothesized model examining the influence of age, significant life events (SLE), social support (SS), health, self-transcendence (ST), and SDNPR on well-being (WB) (Figures 13,14) was tested. This three-stage model was based on theory and past research and has the following subhypotheses: (1) SDNPR (stage 2) was hypothesized to be positively related to the stage one variables, age, significant life events (SLE), self-transcendence, social support, and health. (2) Well-being (stage 3) was

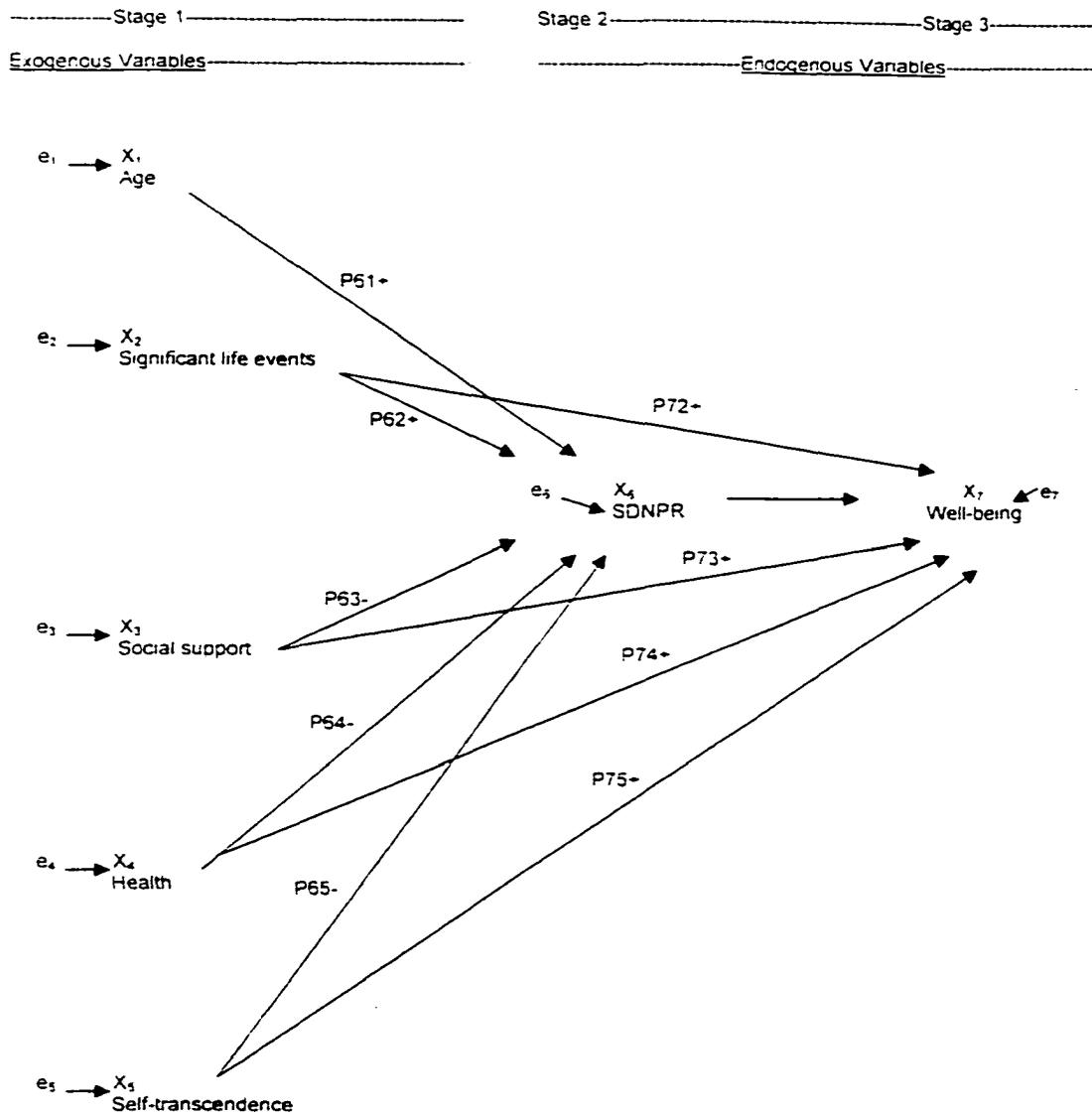


Figure 13. Original hypothesized structural equation model.

$$X_7 = P_{72}X_2 + P_{73}X_3 + P_{74}X_4 + P_{75}X_5 + P_{76}X_6 + e_7$$

$$X_6 = P_{61}X_1 + P_{62}X_2 + P_{63}X_3 + P_{64}X_4 + P_{65}X_5 + e_6$$

Figure 14. Original hypothesized model structural equations.

hypothesized to be positively associated with SDNPR (stage 2), and with significant life events, social support, health, and self-transcendence (stage 1).

Alternate Model One

Five alternate models, based on *a priori* theory were tested. Alternate model one, a five-stage model, is depicted in Figure 3. In this model the subhypotheses were as follows: age, SLE, and social support (stage 1) influence health (stage 2), self-transcendence (stage 3), and SDNPR (stage 4). Significant life events and social support predict well-being (stage 5). Health predicts self-transcendence. Self-transcendence predicts SDNPR, which predicts well-being. Well-being was a latent variable whose manifest variables were self-confidence during stress and life purpose and satisfaction (Figure 5).

Alternate Model Two

The second alternate model was a four-stage model (Figure 4). Well-being in this model was operationalized as a latent variable, indicated by self-confidence during stress, life purpose and satisfaction, and self-transcendence (Figure 6). Well-being (stage 4) was predicted by SDNPR (stage 3), and by significant life events (SLE), and social support (stage 1). SDNPR (stage 3) was predicted by health (stage 2), and by age, SLE, and social support (stage 1). Health was predicted by age, significant life events, and social support.

Alternate Model Three

While research supports a relationship between the nurse-patient relationship and

well-being, the direction of the relationship is not strongly supported. Despite the fluidity of well-being and hospitalization decreasing well-being, the argument can be made that well-being effects a change in the nurse-patient relationship. A third alternate model with SDNPR as the dependent variable was tested. The subhypotheses of this three-stage model are that significant life events, (SLE), social support, health, and self-transcendence (stage 1 variables) predict well-being (stage 2). Age, SLE, social support, health, and self-transcendence (stage 1) and well-being (stage 2) predict SDNPR (stage 3) (Figure 7). Well-being in this model is indicated by life purpose and satisfaction and self-confidence during stress.

Alternate Model Four

Alternate model four hypothesized five stages. The subhypotheses are: the stage one variables age, SLE, and social support, predict health (stage 2). Health (stage 2) and age, SLE, and social support (stage 1) predict self-transcendence (stage 3). Self-transcendence (stage 3) and SLE and social support (stage 1) predict well-being (stage 4). Well-being (stage 4) and age, SLE, and social support (stage 1) predict SDNPR (Figure 8). The latent variable well-being is indicated by the manifest variables life purpose and satisfaction and self-confidence during stress.

Alternate Model Five

A fifth and last alternate model hypothesized a four-stage model in which age, SLE, and social support (stage 1) predict health (stage 2). Health predicts well-being (stage 3), a latent variable indicated by the manifest variables self-confidence during stress,

life purpose and satisfaction, and self-transcendence. Well-being (stage 3) predicts SDNPR (stage 4) (Figure 9).

Regression Analysis

The subhypotheses of the original hypothesized model were also tested by multiple regression analysis, using SPSS for Unix, Release 6.14. Regression analysis is not able to test latent variables. Each variable a single manifest variable. For example, well-being was indicated by a total score on the well-being instrument.

Open-Ended Questions

Two open-ended questions were used to explore nurse characteristics and actions that the patient believed were important to well-being. The questions were: "What characteristics in the nurse are important to your well-being," and "Explain what the nurse or nurses did that was important to your well-being."

Assumptions of the Research Design

Three sets of assumptions related to the statistical analyses were met in this study. They were assumptions of causation, of structural equation model testing, and of regression analysis.

Assumptions related to causation were met in the model development.

Assumptions of Causation

The three conditions of causal inference are (1) covariation between the variables of cause and effect, (2) temporal ordering of causal variable prior to effect variable, and (3) controlling for possible causal effects of confounding variables on the effect variable so that

the covariation between cause and effect is not zero when the confounding variables are removed (Asher, 1983; Ferketich & Verran, 1990, p. 111). The assumptions of causation were met as follows: (1) A well grounded theory, derived from the literature and prior research was proposed (Figure 13). (2) Covariation between predictor and outcome variables was specified in the models that were tested. Covariation between predictor and outcome variables is indicated by the directional arrows with path coefficients. The path coefficient subscripts refer to the cause and effect variables (P_{76} indicates X_6 causes X_7), and the sign indicates if the effect is positive or negative. (3) Temporal ordering was specified in the models. Temporal ordering is evident in the three- stage recursive model of well-being. Age, significant life events, social support, health, and self-transcendence are antecedent to SDNPR. Well-being occurs after the other variables in the model. (4) All variables thought to influence the outcome variable other than the predictor variable were included in the models. The inclusion of the variables age, life events, social support, health and self-transcendence is one of the ways causal factors other than SDNPR were controlled. Methods to account for other possible causal factors will be described in later sections regarding the selection of setting and subjects.

Assumptions of Model Testing

Certain conditions or assumptions must be addressed in order to use a SEM to examine the relationship between phenomena (Asher, 1983; Davis, 1985; Ferketich & Verran, 1990). These conditions relate to model development and testing, specifically to operationalization, sample size, and model identification.

Operationalization

Conditions of model testing were addressed through the use of established instruments with well documented reliability and validity. The Spiritual Dimension Inventory, developed for the current study, did not have established reliability or validity, but both were examined in the present study. The use of psychometrically sound instruments reduces systematic measurement error (Ferketich & Verran, 1990). Instrument reliability should be no less than 0.80 (Nunally, 1978). Instrument psychometrics are described later in the chapter.

Sample Size

An adequate number of subjects is necessary in order to effectively test the model. Sample size required for confirmatory factor analysis is between 80 (Bentler, 1980) and 100 (Loehlin, 1992). Requisite sample size for data analytic procedures in general can be determined by several procedures. One method is to compute $k + 1$, where k is the number of parameters being estimated (Ferketich & Verran, 1990). Another commonly used technique is to have a minimum of ten subjects per variable plus 50 (Thorndike, 1978). Cohen (1988) approaches sample size determination based on the power to detect the expected population effect or the expected variance in the dependent variable accounted for by the predictor variables. A formula, using the number of independent variables, probability of making a Type II error, expected effect, and power, can be used to determine the necessary number of subjects. Using this formula for a power of 0.80, which should be considered the standard convention for power (Cohen, 1988, p. 14), and an effect size of

0.10, a sample of 122 is needed if the researcher takes a five percent chance of making a Type II error (Cohen, 1988).

Using the above conventions to determine sample size, 106 subjects would be needed, based on ten parameters being estimated in the path model and 95 parameters being estimated in the measurement models. Using Thorndike's rule, 120 would be needed. A sample of 122 would be needed, using power analysis. The most conservative estimate of 122 subjects was used for recruitment for the study.

Model Identification

Another assumption of model testing is that of an over-identified model. An over-identified model, one which has more known parameters than unknown, can be solved for a set of unique parameter estimates (Ferketich & Verran, 1990). The hypothesized model had 21 known correlations between variables and ten unknown parameters or path coefficients that were estimated. The hypothesized model, then, is over-identified and can be solved for the path coefficients.

Alternate models were also over-identified. Models one, three, and four had 21 known correlations as did the hypothesized model explained above. Alternate model one estimated fourteen parameters; alternate model three estimated 11 parameters. The fourth alternate model estimated 15 parameters. Alternate models two and five had 15 known correlations between variables. Alternate model two estimated 8 parameters, and model five estimated 10 parameters. Because all models had more known correlations than unknown parameters to be estimated, all models were over-identified and able to be solved

for path coefficients.

Assumptions of Regression Analysis

A further condition of model testing is that the assumptions of regression analysis are met. These assumptions are related to mathematical operations, least squares estimation, and the general linear model (Asher, 1983). Interval-level data meets the assumption necessary for the mathematical operations of calculating means and variances. Estimation assumptions are concerned with residuals or the error term and are: (1) the mean of the error term is zero, (2) the error term has a constant variance for different values of the predicted dependent variable (homoscedasticity), (3) pairs or error terms are uncorrelated or independent, (4) the error terms are normally distributed, and (5) the independent variables and error term in the same equation are uncorrelated. Assumptions for significance tests are (1) the relationship between variables is linear, and (2) the independent variables are measured without error. The last assumption is that there be no specification errors. In other words, no variable of strong effect is omitted and no variable of weak effect is included. In light of the stringent assumptions, it should be noted that regression analysis is robust except when measurement and specification error exist. Problems of heteroscedasticity and nonnormality do not usually cause serious incorrect results (Asher, 1983).

Assumptions of regression analysis were addressed in the following manner: (1) Data were measured at interval-level or higher; (2) A mean error of zero was tested by residual analysis; (3) Normal distribution and homoscedasticity were tested by graphic

residual analysis, plotting the residuals with predicted values; Data transformation was not necessary to correct for non-normality and heteroscedasticity; (4) Independence was assessed by collinearity diagnostics; Comparison of Eigenvalues with Condition Indices and variance proportions was done to assess collinearity (Belsley, 1991); and (5) Linearity was examined by graphic analysis, plotting the residuals of the outcome variable with the independent variables. Data transformation was not deemed necessary as no curvilinear or other non-linear relationships were evident.

Assumptions of regression, or normality, equal variance, mean error of zero, and independence were met as follows: Normality was tested by graphic residual analysis using a histograms and normal probability plots generated by SPSS for Unix, Release 6.14, which showed normal distribution. A plot of the residuals with the predicted values indicated homoscedasticity. A mean error of zero for well-being was tested by noting the residuals statistics. The mean of the residuals was $-.0095$ ($SD = .6546$) with a .05 confidence interval of $(-1.2925$ to $+1.2952)$ which shows the mean error to be evenly distributed around zero. A mean error of zero for the spiritual dimension of the nurse-patient relationship was also tested by noting the residuals statistics. The mean of the residuals was $-.0056$ ($SD = .6130$) with a .05 confidence interval of $(-1.2071$ to $+1.1959)$ which shows the mean error to be evenly distributed around zero.

The assumption of independence was assessed for the dependent variable (DV) well-being by collinearity diagnostics. Comparing Eigenvalues (E) with Condition Indices (CI) found variable one with an E of 2.9 and a CI of 1.0, which supports independence.

Variables two, three and four had an E of .057, .033 and .007 and a CI of 8.2, 10.9, and 22.9. Eigenvalues should be “large” and Condition Indices less than 10; however, a condition index up to 30 is minimally acceptable (Ferketich, 1994). These condition indices indicate that some collinearity might exist. Variance proportions were then noted with variable four having two high variance proportions (>.8) which indicates some collinearity.

The assumption of independence was assessed for the DV SDNPR by collinearity diagnostics. Comparing Eigenvalues (E) with Condition Indices (CI) found variable one with an E of 1.97 and a CI of 1.0, which supports independence. Variable two had an E of .03 and a CI of .79. Variance proportions were then noted with variable two having two high variance proportions (>.8). The collinearity diagnostics indicate that some collinearity may exist, but that independence of variables is reasonably supported.

The model assumption of linear relationships was assessed by graphic analysis plotting the residuals of the DV with the independent variables in the model. No curvilinearity was noted.

The assumption that extraneous variables not included in the model have been accounted for was addressed by including all variables evident in the current literature and testing models with these variables.

Ethical Considerations

Ethical considerations, other than biasing nurses unfavorably towards the patient, pertain to the protection of human subjects. The study proposal was submitted to the

Institutional Review Boards (IRB) of the University of Arizona Health Science Center and the Samaritan Research Institute before data collection began. Approval was obtained from the Samaritan Research Institute (Appendix A). Written consent was obtained from all subjects. One copy of the consent was given to the patient, and a second copy was placed in the patient's medical record. The original consents were stored at the University of Arizona College of Nursing. Blank copies of the consents for GSRMC and TSMC are included with the Samaritan Research Institute Institutional Review Board approval in Appendix A. A Human Subjects application was submitted to the University of Arizona Health Science Center IRB who deferred approval to the Samaritan Research Institute.

Subjects were identified by an arbitrary number on all instruments and computer data files. Nurses were not identified in any way in the study, and both the nurses and the patients were informed that the nurses were in no way identified. There was a potential risk of harm to the patient if the nurses were identified. If the nurses perceived that patients were evaluating them negatively, it was possible that the nurses might limit or otherwise alter the care provided to the patient. Therefore, nurses were not identified in any way, in an effort to lessen the possibility of limitation of care based on patient responses about the nurse-patient relationship.

Procedure

Sampling Plan

Criteria for inclusion in the sample were the following: the subject had to be 18 years of age or older, admitted to a Good Samaritan Regional Medical Center or

Thunderbird Samaritan Medical Center for elective or emergency, non-life threatening surgery, able to read and write in English, in stable condition, and alert and oriented. For these reasons, dying patients and those with known serious physical illnesses were not approached to participate in the study. The use of a surgical patients in a hospital setting was one method of controlling for the sense of vulnerability to threat. All participants were hospitalized and were facing threats such as serious illness, surgery, dependence on others for basic needs, pain, and other physical discomfort (Appleton, 1994; Cameron, 1993; Morse, 1991). Feelings of uncertainty related to unfamiliarity with hospital etiquette, rules, and routines were controlled by the use of the hospital setting (Cameron, 1993). The use of hospital settings also controlled for the time the nurse had to spend with the patient. The nurse-patient ratios and patient acuity levels were approximately the same in all the patient care areas utilized.

Patients were asked to participate in the study during their postoperative course. Patients meeting eligibility requirements were approached without consideration of age, ethnicity or gender. It was expected that the sample would have representation of women and minorities.

One hundred and twenty two participants were sought for the study. The rationale for sample size, as discussed above under Assumptions of Model Testing: Sample Size, was based upon the need to obtain adequate power for the analyses.

Measurements

Five instruments and a patient profile were used. Significant life events were

measured by the Significant Life Events Checklist. Social support was measured by the Medical Outcomes Study Social Support Survey (Sherbourne and Stewart, 1991). The Self-Transcendence Scale (Reed, 1987) was used as a measure of spiritual self-transcendence. The Index of Positive Psychological Attitudes-32R (Kass, 1989) was used to quantify well-being. The Spiritual Dimension Inventory, developed by the investigator, was used to measure the spiritual dimension of the nurse-patient relationship of the nurse-patient relationship. Reliability and validity of the instruments were ascertained. Copies of the instruments and permission to use copyrighted materials were obtained (Appendix B).

Age was measured in years, as indicated on the Patient Profile. Initially health was conceptualized as a latent variable, composed of four measured variables: the patient's self-reported perception of health, the number of medications taken, the number of chronic illnesses, and the number of hospitalizations during the past year. The reliability for the latent construct was below .70 for the construct composed of the four measures and also for any and all combinations of the measured variables related to health. Correlation coefficients were done of the four indicators of health and the SDI subscales, the total SDI score, the IPPA subscales, and the total IPPA score. The patient's self-reported health perception was significantly and moderately correlated with more of the SDI and IPPA scales and subscales than any of the other indicators of health. The single item patient's self-reported health perception was used in all data analysis.

Patient Profile

The Patient Profile consisted of eleven items completed by the participant and five

investigator-completed items. Subjects gave demographic information, such as age, gender, economic status, years of education, ethnicity, religion, and marital status; and health information, such as self-rating of general health and number of hospitalizations during the past 12 months. The investigator used the current medical record to obtain the number of chronic illnesses, number of medications currently being taken for chronic conditions, the surgical procedure done, the date of the procedure, and the date of admission.

Significant Life Event Checklist

The Significant Life Event Checklist (SLE), adapted for this study from the Social Readjustment Rating Scale, is a 20 item list of events that significantly relate to the social structure of the American way of life. The life experiences pertain to the family, work and social relationships, occupation, economics, and health. The events may be socially undesirable, or socially acceptable, and congruent with values such as achievement, success, materialism, and self-reliance. The checklist is based on a survey of 394 subjects' ranking of the impact of various life events on their life (Holmes & Rahe, 1967). Examples of life event items on the checklist are marriage, divorce, death of a spouse or close family member, major personal illness or injury, and having an aging parent move in with you. Subjects check each life event which they have experienced and the year that the significant event occurred. The number of life events was summed to calculate a total number of significant life events checked, and was then adjusted for the number of years since the life event occurred. For instance if the subject had experienced two life events, both during the past year, their adjusted SLE score would be one (two events divided by a total of two

years). A subject who had two life events, one occurring five years ago and one occurring within the past year would have an adjusted score of 0.333 (2 events divided by six years).

The SLE is an index rather than a scale. A scale consists of items whose values are caused by an underlying construct. An index is made up of items that determine the level of a construct (DeVellis, 1991). For instance, items on the SLE Checklist include whether or not the subject has gotten married, divorced or has been fired from a job. Checking these items indicates the presence or absence of the significant life event, but does not indicate that these items were caused by higher life event levels. Reliability estimates are not appropriate for an index because there is no correlation between the life events. Predictive validity is widely reported for the Social Adjustment Rating Scale, from which this instrument was derived, and health. The predictive ability of the Significant Life Event Checklist was examined in the current study.

MOS Social Support Survey

The Medical Outcomes Study Social Support Survey (MOS-SSS) is a 19 item instrument designed to measure five dimensions of social support: (1) emotional support or the expression of positive affect, empathic understanding, and encouragement of expression of feelings; (2) informational support, or advice, information, guidance or feedback; (3) tangible support, or the provision of material aid or behavioral assistance; (4) positive social interaction or the availability of persons with whom to do enjoyable activities; and (5) affectionate support, or expressions of love and affection (Sherbourne & Stewart, 1991, p. 707). The scale has four subscales corresponding to emotional and informational support,

tangible support, affection, and positive interaction. Items are presented in a five-point, Likert-type rating scale, with responses from “none of the time” to “all of the time.” Higher scores indicate the availability of more support. Examples of items measuring emotional and informational support are “the availability of someone to share worries with” and “the availability of someone to give you good advice.” Examples of items assessing tangible support, affection, and positive interaction are the availability of someone to “help if confined to bed,” “hug you,” and “have a good time with.”

The scale was developed as part of a two year study of 2987 adult patients with chronic conditions. Reliability coefficients were reported between 0.91 and 0.96 for the subscales and 0.97 for overall support. Cronbach’s alpha coefficients in the current study were between .86 and .91 for the subscales and .96 for the total scale (Table 4). Validity had been assessed by the correlation of the MOS-SSS with 13 health measures. All correlations were significant ($p < 0.01$). Examples of validity coefficients between overall social support and health are: mental health (0.45), current health (0.22), energy (0.28), effects of pain (0.20), pain severity (0.19), physical symptoms (-0.23).

The MOS-SSS was chosen because of its focus on chronic illness. The individual items are appropriate for hospitalized patients, compared with other instruments, such as the PRQ in which the focus of social support is personal and social functioning (Brandt & Weinert, 1981).

Self-Transcendence Scale

The Self-Transcendence Scale (STS) is a 15 item, four-point, Likert type scale

Table 4

Reliability Coefficients (Cronbach's Alpha)

Instrument	Alpha	Unstandardized Alpha
MOS Support		
Informational	.90	.90
Emotional	.88	.88
Love	.91	.91
Tangible	.87	.87
Positive Interaction	.86	.87
MOS Total	.96	.97
STS		
STS	.79	.80
SDI		
Connection	.87	.87
Empathy	.88	.89
Commitment	.84	.84
Trust	.90	.91
SDI Total	.96	.97
IPPA		
Self Confidence	.90	.90
Life Purpose	.93	.93
IPPA Total	.95	.95

which was designed to measure self transcendence, a developmental concept characterized by the expansion of self-boundaries and life perspectives and purposes (Reed, 1991c). Self-transcendence is defined as the “expansion of self-boundaries multidimensionally: inwardly (e.g., through introspective experiences), outwardly (eg, by reaching out to others), and temporally (whereby past and future are integrated into the present) (Reed, 1991a). The scale is unidimensional, with higher scores indicating higher levels of self-transcendence. Examples of items are “At this time of my life I see myself as adjusting to the changes in my physical abilities” and “At this time of my life I see myself as finding meaning in my spiritual beliefs.” Internal consistency reliability coefficients are reported between 0.80 and 0.88 (Coward, 1991; Reed, 1989). Internal consistency reliability alpha coefficient in the sample under study was .80. Concurrent validity has been supported in a study of older adults (n = 55). The STS correlated with depression ($r = -0.33, p < 0.01$) and symptoms of mental health impairment ($r = -0.32, p < 0.01$) (Reed, 1991a). The STS was chosen as a measure of spiritual expression because of the emphasis on connection, altruistic concern for others’ well-being, and recognition of the ability of the past and future to enhance one’s present experience (Reed, 1991).

Spiritual Dimension Inventory

The Spiritual Dimension Inventory (SDI), a 25 item self-report questionnaire, was used to measure the spiritual dimension of the nurse-patient relationship . The instrument was developed by the investigator and was derived from empirical and conceptual

literature on patients' perspectives of essential elements in the nurse-patient relationship. Items were generated and categorized into five subscales: **connection, understanding, acceptance, commitment** to a mission in life, and **trust**, (tables 5 - 9). The items were reviewed by three nurses and two patients who reported having had experienced a meaningful, connected nurse-patient relationship. Responses are based on a five point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). Examples of items are "I felt deeply connected to my nurse" and "The nurse seemed to care about me as a person, not just as a patient or an illness." Negatively worded items are reverse-scored, so that higher scores indicate a stronger spiritual dimension of the nurse-patient relationship.

Construct validity was examined using confirmatory factor analysis to test three measurement models of the five dimensions of the nurse-patient relationship and is reported in Chapter Four. Internal consistency reliability was assessed by calculating item to item reliability coefficients (Cronbach's alpha) and item to scale correlation coefficients for the entire scale and the subscales. The alpha coefficient is the preferred index of internal consistency reliability because it indicates the extent to which any one item indicates the response to any other item in the instrument (Waltz, Strickland, & Lenz, 1991). An alpha of 0.70 to 0.80 is acceptable and 0.80 to 0.90 is very good (DeVellis, 1991). Other authors state that reliabilities should not be below 0.80 for widely used scales (Carmines & Zeller, 1979) and not below 0.70 for newly developed instruments (Haase, 1994). Based on these considerations, a reliability of 0.70 was chosen to indicate acceptable reliability on the SDI.

Table 5

Spiritual Dimension Inventory: Connection Items

Item Number	Item	Reverse Scored (R)
1	The nurse and I "clicked."	
2	I felt like I was "special" to the nurse	
7	The nurse was too busy to really care about me.	R
8	It was hard for me to talk to the nurse.	R
13	I got to know the nurse as a person, not just as a nurse.	
14	The nurse was sincere and "real."	
19	I felt like I mattered to the nurse.	
20	The nurse didn't share any feelings with me.	R

Table 6

Spiritual Dimension Inventory: Understanding Items

Item Number	Item	Reverse Scored (R)
3	The nurse understood me as a person, not just as an illness.	
4	The nurse had no idea how I really felt.	R
9	The nurse seemed to feel what I was feeling.	
10	The nurse acted like my concerns were not important.	R

Table 7

Spiritual Dimension Inventory: Acceptance Items

Item Number	Item	Reverse Scored (R)
2	I felt like I was "special to the nurse.	
3	I got to know the nurse as a person, not just as a nurse.	
15	The nurse accepted me no matter what I felt or said.	
16	I felt judged and criticized by the nurse for what I said or did.	R
19	I felt like I mattered to the nurse.	
21	I felt like I could ask the nurse for whatever I needed.	
22	The nurse was kind	

Table 8

Spiritual Dimension Inventory: Commitment Items

Item Number	Item	Reverse Scored (R)
5	The nurse seemed dedicated to nursing.	
1.	I felt like nursing was "just a job" to the nurse.	R
17	The nurse didn't seem to like nursing very much.	R
23	The nurse "went the extra mile" for me.	

Table 9

Spiritual Dimension Inventory: Trust Items

Item Number	Item	Reverse Scored (R)
6	I had trust in the nurse's care and ability.	
2.	I felt like the nurse was honest with me.	
18.	The nurse was there for me when I was in need.	
24.	I felt safe knowing she (he) was my nurse.	
25.	The nurse was competent and skilled.	

Cronbach's alpha reliability coefficients for the total scale and subscales were .84 or above (Table 9) with the exception of the SDI subscale **understanding** which was .70 was developed by the investigator and was derived from empirical and conceptual literature on patients' perspectives of essential elements in the nurse-patient relationship. Items were generated and categorized into five subscales: **connection, understanding,** (both standardized and unstandardized). The SDI **acceptance** subscale alpha was .90 (.91 standardized). Since the two sub-scales, **understanding** and **acceptance**, are theoretically congruent, the two were combined into one subscale, **empathy**. The reliability coefficient for the **empathy** sub-scale was .88 (.89 standardized). Unstandardized alphas were used because items were parallel or tau equivalent (DeVellis, 1991), although standardized and unstandardized coefficients were very close, as expected.

Reading level for a scale used with the general population should be between fifth and seventh grade (DeVellis, 1991). The reading level of the SDI is somewhat below a fifth grade level, based on the average number of words and syllables per sentence (DeVellis, 1991).

Inventory of Positive Psychological Attitudes

The Inventory of Positive Psychological Attitudes (IPPA-32R), a revision of the earlier IPPA, was used to measure well-being during stressful circumstances (Kass, 1998). The IPPA-32R is a 32 item multidimensional questionnaire measuring positive attitudes that buffer stress and indicate well-being. Items are presented in a semantic differential

format with response choices between one and seven. Examples of items are “When there is a great deal of pressure being placed on me I remain calm (1) or I get tense (7)” and “my daily activities are a source of satisfaction (1) or not a source of satisfaction (7).” The questionnaire has two subscales: life purpose and satisfaction (LPS) and self-confidence experienced during potentially stressful situations (SCDS). The conceptualization underlying the two subscales is a positive worldview, and confidence in life and self, which includes strength in both dimensions of LPS and SCDS. Cronbach’s alphas were reported for the LPS as .94, .92 for the SCDS, and .96 for the scale as a whole (Kass, 1998). Internal consistency reliability was examined in the sample under study and was .93 (LPS), .90 (SCDS), and .95 (total). Concurrent divergent and convergent validity has demonstrated appropriate relationships between the IPPA and self esteem, affect, anxiety, and depression (Kass et al., 1991; Zuttermeister, Kass, Geiss & Friedman, 1992). Predictive validity has been supported between the IPPA and core spiritual experiences (Kass, Friedman, Leserman, Zuttermeister, and Benson, 1991). The IPPA was chosen because it measures self-confidence during potentially stressful situations, such as patients often experience. A measure of positive attitudes of life purpose and satisfaction and self-confidence was used because positive attitudes may interact with the spiritual dimension of the nurse-patient relationship in ways that negative measures, such as anxiety and depression do not.

Data Collection

A small pilot study was done during February and March, 2000. Six acquaintances

of the researcher who had undergone surgery during the past year were given questionnaire packets. The pilot study participants were asked to indicate the length of time it took them to complete the questionnaires and to critique the Spiritual Dimension Inventory (SDI) for clarity of questions. Most participants completed the questionnaires in less than ten minutes; however, one participant took 45 minutes. The items of the SDI were clear, but some formatting suggestions were incorporated into the instrument.

Data were collected during March and April, 2000 at Good Samaritan Regional Medical Center (GSRMC) and Thunderbird Samaritan Medical Center (TSMC) in Phoenix, Arizona. The researcher was given access to eight nursing units at GSRMC: four general medical-surgical units, two orthopedic units, and two telemetry units with patients recovering from coronary artery bypass graft surgery (CABG). Three nursing units at TSMC were used: a telemetry and post CABG patients care area and two general medical-surgical units.

Prior to data collection the researcher oriented the nurse managers of each nursing unit to the study. The nurses on each of the patient care units were given letters explaining the study, and informational posters were displayed in the lounge areas. The staff nurses were told that the study involved predictors of patient well-being. They were not informed that the nurse-patient relationship was being examined because of the possibility that such information would influence their patient interactions, creating a possible Hawthorne effect.

The investigator identified patients who met eligibility criteria by talking to the

nurses and reviewing the Kardex®. The staff nurse accompanied the researcher into the rooms of patients who meet eligibility criteria. The staff nurse asked the patient's permission to be approached by the researcher. The investigator gave the prospective participant a letter explaining the study as well as verbally explaining the study (Appendix B). The investigator gave the potential subject a consent form to read and explained the consent procedure. After consent was obtained, a packet was given to the study participant consisting of a Patient Profile, the instruments, a pencil, and an envelope. Participants were instructed to complete the questionnaire packet and to place the completed questionnaires in the envelope and to seal the envelope to maintain the confidentiality of their responses.

The researcher returned within four hours of the initial meeting with the patient or at another time that the patient determined to be more convenient to answer any questions about the questionnaires, to pick up completed packets, or to arrange a later time to retrieve the completed packet. Participants were instructed not to ask the nurses questions pertaining to the study, but to wait until the researcher returned to check with them. Patients who chose to mail the packets to the researcher were provided with a stamped and addressed envelope. A record was not kept of the number of participants who mailed the packets, compared with the number who returned the packet to the investigator. Several participants had questions of the investigator, when she checked back with them. A record was not kept of the subjects' questions, although most asked for clarification of a question on an instrument. The questions were answered in the

directions to the instrument, indicating that some participants did not read the directions.

Questionnaires, rather than interviews, were used to reduce the likelihood of respondents' concern that the nurses caring for them might hear their answers which, in turn, might negatively influence their nursing care. The instrument ordering in the packet progressed from easier questions to those requiring more consideration and were as follows: (1) Patient Profile, (2) Significant Life Event Checklist, (3) MOS Social Support Survey, (4) Self-transcendence Scale, (5) Spiritual Dimension Inventory, and (6) Inventory of Positive Psychological Attitudes.

The investigator completed items 12-16 on the Patient Profile by obtaining the number of chronic illnesses, the number of medications, surgical procedure, and dates of admission and surgery from the current medical record. Permission to obtain information from the medical record was included in the Human Subjects Approval from the Institutional Review Board of the Samaritan Research Institute. Patients who opted to mail the questionnaire packet were given the investigator-completed portion of the Patient Profile to mail back with the completed questionnaires and subject-completed portion of the Patient Profile.

All patients who met the study criteria (N - 209) were approached to participate in the study. Ten patients refused to be in the study. Nine stated that they didn't feel well enough to complete the questionnaires. One looked at the questionnaires and stated that the questions were "too personal." The nurses excluded patients who were unstable in some way, for instance if the patient were having pain management difficulties. Two

patients met original study criteria but were unable to complete the questionnaires due to physical limitations (bilateral upper extremity casts and immobilization and visual limitations).

Two hundred questionnaire packets were distributed. Ninety two of the packets were completed and returned to the researcher, constituting a 46% return rate. Of the 92 returned packets, 88 were from GSRMC and four were from TSMC. Records were not kept of which subjects returned the packets and which did not, in agreement with the confidentiality measures.

Data Analysis

Reverse score items were recoded. Instrument scale and sub-scale scores were computed according to the author's instructions. The adequacy of the data was verified, including measured for handling missing data. The proposed analysis of data was executed.

Measurement Models

Measurement models of the latent variable SDI, (Figures 10-12) were analyzed by confirmatory factor analysis, using EQS for Windows, Version 5.7b. The latent variable is an unmeasured common factor and is considered the cause of the manifest variable (Ferketich & Verran, 1990). The measured variables, including individual items, are the manifest variables and are indicators of the factor or latent variable. A measurement model was tested for the latent variable to determine the fit between the hypothesized, observed model of the latent variable and the manifest variables and the perfectly

correlated, expected model of the latent and manifest variables. Three measurement models of the SDI were tested. Nested model comparisons of chi square goodness of fit measures and fit indices were done to determine the best measurement model fit with the data. After the fit of the measurement models to the data was adequately supported, the hypothesized latent variable model was tested as a structural equation model.

Structural Equation Models

The hypothesized structural equation model and alternate models were analyzed by confirmatory factor analysis, using EQS for Windows, Version 5.7b. Confirmatory factor analysis determines model fit by comparing the predicted, observed model to the expected model. The chi square (X^2) goodness of fit measure indicates the fit of the predicted correlation matrix of the observed model to the expected correlation matrix of a perfectly correlated model. A low, non-significant X^2 indicating no difference between the observed, specified model and the expected, perfectly correlated model is desired (Figuerdo, 1994; Munro & Page, 1993). Fit indices are computed which compare the observed model with the null model where all correlations are zero. A fit index of 0.90 or better indicates good model fit (Figuerdo, 1995; Munro & Page, 1993). Nested model comparisons of the chi square goodness of fit measure and fit indices were done to determine the structural equation model which best fits the data. The hypothesized model that best fit the data by the above criteria was used to determine path coefficients.

Regression Analysis

A regression analysis was done to test the seven variable hypothesized model.

SPSS for Unix, Release 6.14 was used. The sample of 98 was insufficient in size to detect a small effect with a power of .80, however, increasing the probability of Type II error. A regression analysis of the four SDI subscales on well-being was performed, since the sample size was adequate to test a model with five variables. The regression of the SDI subscales on well-being was done with well-being as the IPPA total score (Figure 15) and repeated with well-being as the IPPA subscale self confidence under stress (Figure 16).

Content Analysis

The data from the responses to the open ended questions were reduced, analyzed, reconstructed, and synthesized, using content analysis (Krippendorff, 1980). The content analysis was a five step process (Krippendorff, 1980). First, all responses were read to obtain a general sense of what was being expressed by the participants. Next, actual key words or phrases were extracted, such as “caring,” “listened,” or “check on me.” These words or phrases were the primary units of analysis. The units of analysis were then grouped with words or phrases of similar meaning. The fourth step was to synthesize the meanings of the grouped units of analysis into themes. For example, “caring,” “listen,” “check back,” and “help me” were units of analysis that were grouped together with other actual words and phrases. These were pondered for understanding of the larger meaning. The theme “sincere concern for patient in time of need” was synthesized from the grouped units of analysis. The last step was to relate the theme to well-being. The themes were understood as important to well-being, based on the context of the open-ended questions.

The context of the data was two open-ended questions on the Spiritual Dimension

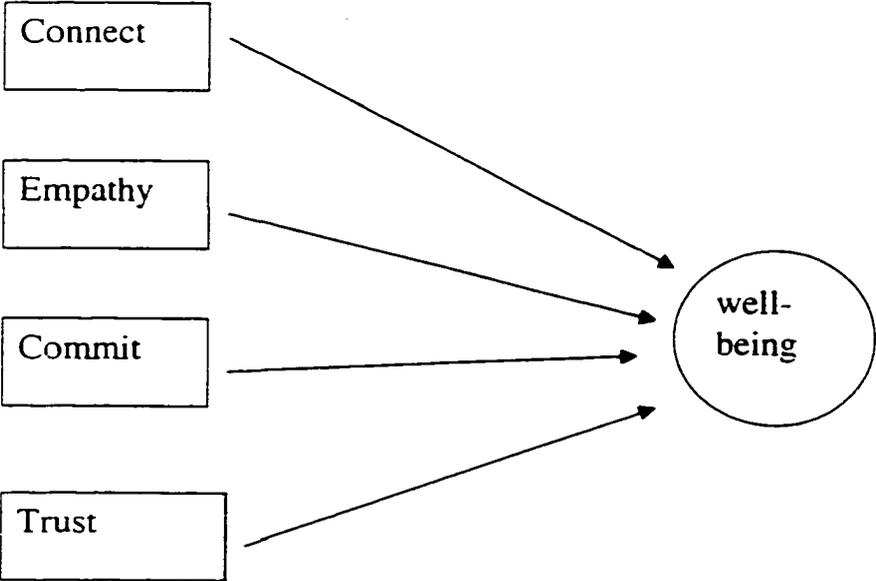


Figure 15. Regression of SDI on well-being.

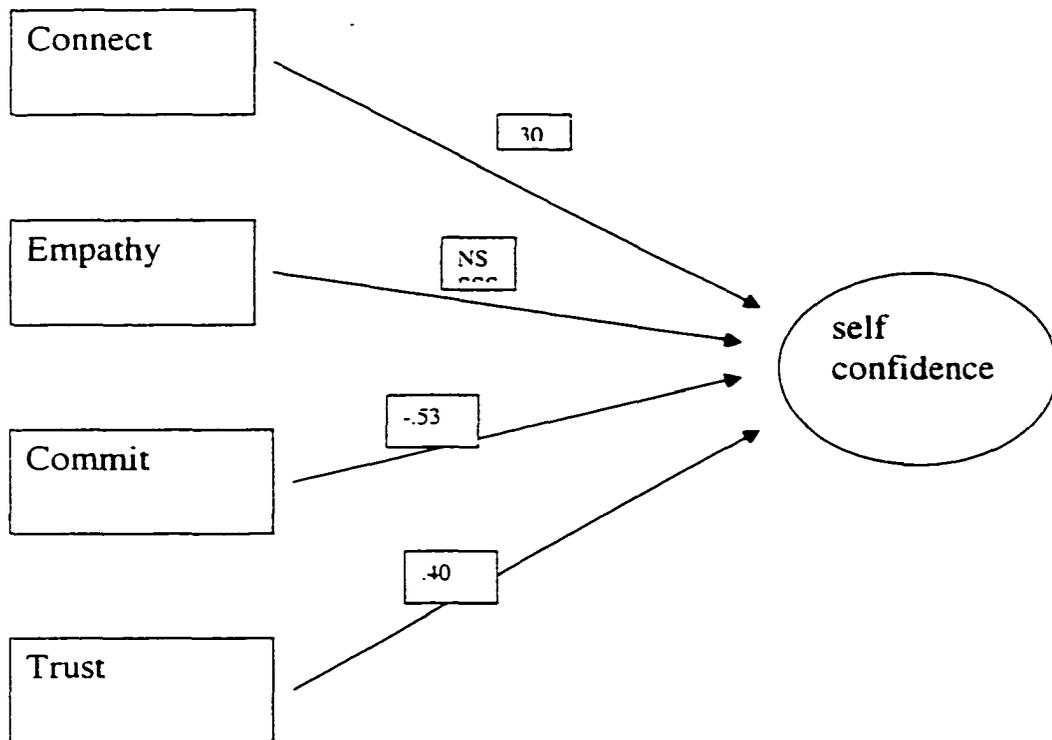


Figure 16. Regression of SDI on self-confidence.

Inventory (SDI) asking the patient what nurse characteristics and behaviors were important to well-being. The themes that emerged from the data were understood as elements of SDNPR that were important to well-being. Themes synthesized from the content analysis were related to data from the SDI for validation of SDI findings and to augment other findings. The process was corroborated by two doctorally prepared nurse academicians with extensive experience in qualitative analysis. The patterns and relationships within the data were not taken back to the participants, but were shared with nurses and patients who reported having experienced the spiritual dimension of the nurse-patient relationship for their evaluation of the congruence between their experience and the themes identified.

Chapter Three Summary

A nonexperimental, one-group, one-measurement, latent variable or structural equation model research design was used to explore the relationship between the spiritual dimension of the nurse-patient relationship and patient-perceived well-being, accounting for health-related and demographic variables. Assumptions of model development and testing, as well as assumptions of regression analysis, were met in the design of the study. Appropriate Institutional Review Board approval was obtained. Subjects were hospitalized, adult, post-operative patients. Instruments that were used to measure the study's variables had previously demonstrated reliability and validity, with the exception of the Spiritual Dimension Inventory which was developed for the study. Reliability and validity in this study met established criteria. Measurement models were specified and

tested to evaluate construct validity of the SDI. The original hypothesized model and the five competing models were tested, using both chi square goodness of fit measures and nested model comparisons. The subhypotheses of the six models (the relationships between the variables in the models) were examined only in the model that best fit the data. The relationships between variables in the original hypothesized model were also tested by regression analysis. Content analysis of two open-ended questions on the SDI was completed. The findings and discussion of the findings are presented in Chapters Four and Five.

CHAPTER FOUR

RESEARCH FINDINGS

Chapter four present the results of the measurement model testing of the Spiritual Dimension Inventory (SDI), as a means to assess construct validity of the SDI. Next the results of the structural equation model testing of the original hypothesized model and the five alternate models are presented. The subhypotheses of the original hypothesized model, analyzed by regression analysis is presented. Chapter Four concludes with the results of the content analysis of the open-ended questions.

Adequacy of the Data

The 88 packets from GSRMC, four from TSMC, and the six pilot packets were compared for equivalence. A chi square goodness of fit statistic was calculated for the categorical variables sex, race, religion, and marital status. The statistic was non-significant, supporting the null hypothesis of no difference between the three groups. Analysis of variance, comparing group means of the three groups, supported the null hypotheses of no differences between group means for age, economic security, years of education, how religious, perception of health, number of medications, number of chronic illnesses, average number of significant life events, all instrument scores, and all sub-scale scores. The pilot cases, TSMC, and GSRMC cases were judged to be equivalent and were included in the sample, yielding a total sample size of 98.

Data were verified by visual examination and frequency distributions. Responses were scanned for outliers and wild codes or responses that were not possible, such as

scores greater than four on the Self Transcendence Scale, an instrument with responses varying from 1 to 4. Frequency distributions were examined for every variable, including every individual item. Several questionnaire packets were randomly selected and responses on the actual questionnaires were verified on the computer data file. No discrepancies were found. Consistency checks were done, checking items such as type of surgery with number of hospitalizations during the past year.

Data were examined for normal distribution by visually inspecting histograms for all variables, individual items, subscales, and scales. The Kolmogorov-Smirnov one sample test, comparing the cumulative distribution function for a variable with a uniform, normal distribution and testing whether the distributions are homogeneous (SPSS, 1990) was done. All variables were normally distributed.

Missing Data

The researcher attempted to avoid missing data by a strict data collection approach which included assessment of the subject's willingness to complete the instrument packet, by reviewing the completed instruments immediately after the subjects completed them, and by following up on missing data by verbally asking subjects about missing items, taking care to protect confidentiality. Missing data occurred despite rigorous data collection procedures. All cases with missing data were examined to determine patterns. Thirty-four cases were missing one or more responses. Cases missing 20% or more of the items in an instrument were carefully studied (Figuerdo, 1996) for patterns indicative of annoyance or fatigue, such as answering all numbers on the far right side of the page. In

addition to examining cases with missing data, items with missing responses were studied. For instance, if several subjects omitted the same item, the item may have been confusing or offensive. That item was evaluated for inclusion or elimination from the instrument. Neither cases nor items were dropped. Missing data were entered as a blank, rather than making a substitution, such as item mean or sample mean for the item. Artificial data, such as item or sample mean, is less accurate than coding missing data as a blank (Polit & Hungler, 1999). Coding missing data as a zero or nine similarly taints results, such as means. The statistical software packages used in the study allow the use of blanks for missing data. Statistical procedures that were based on a correlation matrix, however, performed a pairwise deletion of cases with missing data.

Sample Size

The initial target sample size of 122 was based on the most conservative estimates to detect significant results for regression analysis and confirmatory factor analysis, both for structural equation testing and measurement model testing. The obtained sample size of 98 was used for the following reasons: Smaller samples are acceptable for use with structural equation modeling. A sample of 98 subjects is within the recommended minimum of 80 (Bentler, 1980) to 100 (Loehlin, 1992). Confirmatory factor analysis, used to test the measurement models of the SDI, requires five to ten subjects per item. The Spiritual Dimension Inventory has 25 items, necessitating a minimal sample size of 125. Another option, however, is to compute factor scores, rather than using individual item scores. Factor scores can be substituted for individual items if the subscale reliability

is .80 or above (Figuerdo, 1996). Five to ten cases per factor score are required (Figuerdo, 1996). The SDI had five factor scores (**connection, understanding, acceptance, commitment, and trust**) with reliabilities greater than .80. The sample size of 98 was more than adequate for the measurement model testing of five to ten items for five factor scores, or 25 to 50 cases. Since 122 subjects were needed to detect an effect of 0.10 with a power of 0.80, regression results from a sample of 98 would be prone to type II error. While regression equations were run, the results were mostly non significant, congruent with the expected inability to detect significant findings due to the small sample size.

Sample Description

The sample (Table 10) consisted of 24 males and 74 females ranging in age from 19 to 90, $M = 53.8$, $SD = 15.0$. Most of the subjects were white, non-Hispanic (81%). Nine percent were Hispanic, 3% were American Indian, and two percent were African American. Religious affiliation was primarily Catholic (30%), Protestant (27%), Born Again (11%), and no preference (15%). Eighty four percent considered themselves either somewhat or strongly religious or spiritual. Sixty percent of the sample was married or in a committed relationship. Twenty two percent were divorced or separated; 8% were widowed and not remarried. Nine percent were never married. Eighty one percent considered their health to be at least average. Most had been hospitalized once in the past year (58%). The majority of the subjects had undergone orthopedic, gastro-intestinal, or gynecologic surgery. The average number of years of education was 15.3 ($SD = 8.9$).

Table 10

Characteristics of the Sample

Sex	Male	Female		
	24.5%	75.5%		
Age	<u>M</u>	<u>SD</u>		
	52.8	15.1		
Economic Status	Very secure	Somewhat secure	Not very secure	
	23%	52%	23%	
Race	White	Hispanic	African-American	American-Indian
	81%	9%	3%	2%
Religion	Catholic	Protestant	Born Again	Jewish
	30%	27%	11%	5%

Table 10 continued

Religion (cont'd)	Jehovah's Witness	LDS	Native American	Religious Science
	3%	2%	2%	2%
	Pentecostal	No Preference		
	1%	15%		
Years of Education	9-12 years		13-16 years	17+ years
	30.2%		50.5%	19%
How Religious/Spiritual	Strongly	Somewhat	Not Very	Not at All
	34.8%	50.6%	12.4%	2.2%
Marital Status	Married/ Committed	divorced/ separated	widowed	never married
	60%	22%	8%	9%

Table 10 continued

Health Perception	Excellent	Good	Average	Fair	Poor
	15%	41%	25%	12%	6%
Hospitalized Past 12 Months	Once	Twice	Three Times	Four or more	
	58%	20%	11%	4%	
Type of Surgery	Ortho	GYN	GI	laparoscopic	
	19%	25%	21%	2%	
	CABG	vascular	mastectomy	GU	
	10%	2%	2%	2%	
	ENT	nephrectomy	other		
	2%	2%	3%		

Twenty three percent described themselves as not very financially secure; another 23% described themselves as very financially secure. The remaining 52% described themselves as somewhat financially secure.

Results of the Measurement Model Testing

Construct validity of the SDI was assessed using confirmatory factor analysis to test three hypothesized measurement models. The first measurement model of SDNPR, a higher order factor model (Figure 10), hypothesizes a higher order factor, the spiritual dimension, which explains or underlies four factors: **connection**, **empathy**, **commitment**, and **trust**. The chi square for this model was 6.491 for 5 degrees of freedom. The Bentler-Bonett Normed Fit Index was .872.

The second measurement model, a stage model, tested a stage theory of the SDNPR (figure 11). Four invariant stages, progressing from **commitment** to **connection** to **empathy**, and lastly to **trust** were hypothesized. This model is a linear model in which prior stages must be accomplished before the nurse-patient relationship progresses to the next stage. The chi square for this model was 0.213 for 3 degrees of freedom. The Bentler Bonett Normed Fit Index was .996.

The third measurement model, was a fully correlated model (figure 12). The four factors of **connection**, **empathy**, **commitment**, and **trust** were allowed to freely covary. The chi square for this model was 0.494 for 2 degrees of freedom. The Bentler Bonett Normed Fit Index was 0.990.

Construct Validity of the SDI

Model fit of the specified measurement models with data from the study sample was done by chi square estimation and fit index calculation (Table 11). Chi square statistics can be compared across models, adjusted for degrees of freedom. The model with the lowest chi square is the model which explains the most variance. A chi square compares the expected correlation matrix of the best possible model, one in which all variables are perfectly correlated, with the observed correlation matrix of the sample under study. If the observed matrix is identical to the expected, perfectly correlated matrix, the chi square is zero and non significant. A non significant chi square supports the null hypothesis of no difference between the observed, sample correlation matrix and the expected, perfect correlation matrix. With large samples, however, the null hypothesis of no difference between observed and expected model matrices is nearly always rejected ($p < .05$) (Figuerdo, 1993).

Fit indices, on the other hand, compare the observed correlation matrix to the correlation matrix of a null model in which none of the variables are correlated, or all hypothesized variables have zero correlations. The Bentler Bonnet Fit Index adjusts for the number of parameters estimated. A fit index of 0.9 is desirable, indicating that 90% of the chi square of the fully correlated, expected model is explained. Models two and three, the stage model and the fully correlated model, are both good fits to the expected model. The chi squares are close to zero and fit indices are .90 or above, $p < .05$. Construct validity is supported by the confirmatory factor analysis of the measurement models.

Table 11

Fit Indices for Nested Model Comparison of Measurement Models of SDI

Model	χ^2	BBFI	df	χ^2 diff	Δ BBFI
Higher Order Factor Model (1)	6.491	.872	5		
Stage Model (2)	0.213	.996	3		
Fully Correlated Model (3)	.0494	.990	2		
Difference between Models 1 & 2				6.278*	.124
Difference between Models 1 & 3				5.997*	.118
Difference between Models 2 & 3				0.281	.006

Note. $p^* < .05$

BBFI = Bentler-Bonnet Fit Index

Results of the Structural Equation Model Testing

Preliminary analysis consisted of examining the correlation matrices of the SDI subscales and total scale score with other variables. Correlations are listed in Table 12.

The statistical analysis technique used to estimate structural equation models (SEM) with latent variables is confirmatory factor analysis. The structural equation model specifies predictive paths between latent variables or a combination of latent and manifest variables. It is important to understand the two step process through which SEMs are tested. First, SEM fit is reported as a chi square goodness of fit measure. Only after the model demonstrates an adequate fit with the data of the study sample, are predictive paths between variables (model subhypotheses) estimated.

As with the measurement model, the observed correlation matrix of variables is compared with the expected, fully or perfectly correlated, expected correlation matrix and compared by chi square. A chi square of zero indicates no difference between the observed and expected model matrices. A non significant chi square supports the hypothesis of no difference between the observed and expected models.

Original Hypothesized Model

The original hypothesized model is a three stage model (figure 2), with well-being as the dependent variable (DV), a latent variable composed of the measured or manifest variables of life purpose and satisfaction (LPS) and self-confidence during stress (SCDS). The spiritual dimension of the nurse-patient relationship, life events, social support, health, and self transcendence are independent variables (IV). In this model SDNPR is predicted

Table 12

Correlations

	Connection	Empathy	Commitment	Trust	Total
Age	-.04	-.04	-.06	.09	-.02
Econ	-.05	-.05	-.13	-.11	-.08
Educ	.01	-.01	.02	.06	.01
How relig	.00	-.03	-.05	.00	-.02
Health	.25*	.24*	.12	.21*	.23*
Illnesses	-.20	-.23*	-.10	-.14	-.20
# meds	-.35**	-.34**	-.23*	-.19	-.32**
SLE	-.14	-.13	-.12	.03	-.11
MOS info	.18	.20	.02	.13	.16
MOS emot	.21*	.20	.03	.12	.17
MOS love	.20*	.25*	.08	.19	.21*
MOS tang	.28**	.23*	.13	.25*	.24*
MOS PI	.23*	.24*	.07	.13	.20
MOS Total	.28**	.28**	.10	.20*	.25*
STS	.21*	.18	.02	.19	.17
SelfConf	.21*	.18	.03	.20	.18
Life Purp	.11	.16	.01	.14	.12
IPPA Total	.17	.18	.02	.17	.16

Note. * $p < .05$. ** $p < .01$.

by age, life events, social support, health, and self-transcendence. This model was tested first. The chi square statistic for this model was 350.083 for 98 df, $p < .05$. The fit index was .777. This model does not compare favorably to the perfectly correlated, expected model.

Alternate Models

Next, alternate model one was tested (figure 3). This five-stage model hypothesized that well-being (stage five) is predicted by the spiritual dimension of the nurse-patient relationship, age, life events, and social support. The manifest variables for well-being were LPS and SCDS. The spiritual dimension of the nurse-patient relationship (stage four) is predicted by self transcendence, age, life events, and social support. Self transcendence (stage three) is predicted by health, age, life events, and social support. Health (stage two) is predicted by age, life events, and social support (stage one). The chi square for this model was 266.588 for 97 df, $p < .05$. The fit index was .850. This model fits the expected, perfectly correlated matrix better than the hypothesized model.

Alternate model two (Figure 4) is a four stage model that hypothesized well-being as the stage four DV, a latent variable whose measured variables were LPS, SCDS, and self-transcendence. The spiritual dimension of the nurse-patient relationship (stage three), and life events and social support (stage one) predict well-being. The spiritual dimension of the nurse-patient relationship (stage three) is predicted by health (stage two) and by age, life events, and social support (stage one). Age, life events, and social support (stage

one) predict health (stage two). The chi square of this model was 249.723, 98 df, $p < .05$. The fit index was .866.

Alternate model three, a three stage model, (Figure 7) predicts the spiritual dimension of the nurse-patient relationship (stage three) by well-being (stage two). Well-being is a latent variable whose measured variables are LPS and SCDS. The stage one variables age, life events, social support, health, and self-transcendence also predict the spiritual dimension of the nurse-patient relationship. Well-being (stage two) is predicted by life events, social support, health, and self-transcendence (stage one). The chi square for this model was 341.739 for 98 df, $p < .05$. The fit index was .784, indicating only fair fit between observed and expected matrices.

Alternate model four (Figure 8), a five stage model, was theorized with the spiritual dimension of the nurse-patient relationship as the stage five DV, predicted by well-being as LPS and SCDS (stage four), and by stage one variables age, life events, and social support. In this model, the stage four variable, well-being, is predicted by self-transcendence (stage three), and by life events, and social support (stage one). Self-transcendence (stage three) is predicted by health (stage two), and by age, life events, and social support (stage one). Health (stage two) is predicted by age, life events, and social support (stage one). The chi square for this model was 282.372 for 98 df, $p < .05$. The fit index was .837.

The fifth and last alternate model, a four stage model (figure 9), was hypothesized with the spiritual dimension of the nurse-patient relationship as the stage-four DV,

predicted by the stage-three variable well-being (LPS, SCDS, and self-transcendence), and by stage-one variables life events and social support. Well-being, the stage three variable, is predicted by health (stage two), and by age, life events, and social support (stage one). Health (stage two) is predicted by age, life events, and social support (stage one). The chi square for this model was 248.783, 98 df, $p < .05$. The fit index was .866.

In comparing the six models, alternate models two and five are the closest fits to the expected, perfectly correlated model, but are less than the expected fit of .90 (Table 13). These two models differ only in which variable is the DV or outcome variable. Both have fit indices of .866. The chi square statistics for the two models are 249.723 and 248.783, both with 98 degrees of freedom. The two chi squares can be compared directly since the degrees of freedom are the same. Model five has a minimally smaller chi square, but the difference is not great enough to support this model over model two. Results are inconclusive, nevertheless, particularly to determine whether the spiritual dimension of the nurse-patient relationship predicts well-being, whether well-being predicts the spiritual dimension of the nurse-patient relationship, or neither.

Results of the Regression Analysis

A regression analysis of the original hypothesized model was done, despite a sample size that was insufficient to detect an effect of .10 with a power of .80. Regression coefficients were either nonsignificant or small. A regression analysis of the four SDI subscales on well-being, measured as the IPPA total scale was done. No significant regression coefficients were found. A regression of the SDI subscales on well-being as the

Table 13

Fit Indices for Nested Model Comparison of Structural Equation Models

Model	χ^2	BBFI	df	χ^2 diff	Δ BBFI
Original Model (0)	350.083	.777	98		
Alternate Model (1)	266.588	.850	97		
Alternate Model (2)	249.723	.866	.98		
Alternate Model (3)	341.739	.784	.98		
Alternate Model (4)	282.372	.837	98		
Alternate Model (5)	248.783	.866	98		
Model 2 cf Model 5				.940	0

Note. BBFI = Benter-Bonnet Fit Index

IPPA subscale self-confidence during stress was done. **Connection, commitment, and trust** were significant when regressed on self-confidence with 53% of the variance in self-confidence accounted for by **connection** ($\beta = .30$), **commitment** ($\beta = -.53$), and **trust** ($\beta = .40$). **Empathy** was not significant. When other variables (age, health, social support and self transcendence) were added to the model, keeping self-confidence as the dependent variable, the SDI subscales dropped out of the regression equation as significant predictors of self-confidence. Only health ($\beta = .19$) and self transcendence ($\beta = .50$) were significant (Table 14).

Results of the Content Analysis

Data collected in response to the two open ended questions were analyzed using content analysis. Eighty-nine of the 98 subjects (91%) wrote at least one comment in response to the open ended questions. The two open ended questions were: (1) "What characteristics in the nurse are important to your well-being?" And (2) "Explain what the nurse or nurses did that was important to your well-being." The subjects did not clearly differentiate their responses into two categories of nurse characteristics and nurse behaviors. All responses were analyzed as one category of characteristics and behaviors of the nurse that were important to well-being.

After carefully reading over all the responses, each participant's response was read again and actual words or phrases were extracted. The basic units of analysis was the word or phrase written by the patient, such as "focused on me," "responded promptly to severe needs," and "patient with me." After extracting the words or phrases from all

Table 14

Regression Analysis (N=98)

Variable	<u>B</u>	<u>SE B</u>	β
Connect	.42	.23	.30*
Commit	.66	.23	-.53*
Trust	.60	.29	.40*

Note. $R^2 = .04$ for Step 1; $\Delta R^2 = .09$ Step 2; $\Delta R^2 = .13$ Step 3 ($ps < .05$).

* $p < .05$.

respondents, these units of analysis were then grouped with others of similar meaning. These units of analysis were thoughtfully considered, seeking to understand an overall or common meaning. The units of analysis were synthesized into themes with commonality of meaning. Themes were related to well-being based on the context of the open-ended questions. Table 15 summarizes the results of the content analysis.

The first theme synthesized from the units of analysis was “concern for the patient in time of need.” Units of analysis from which the themes were inferred are in Table 15. Seventy-nine of the respondents (89%) wrote at least one comment interpreted as concern for the patient in time of need. The second theme was “being recognized as a person and feeling accepted.” Sixty-three respondents (71%) wrote at least one comment regarded as being recognized and accepted as a unique individual. The third theme was “competence.” Fifty-two study participants (58%) wrote at least one comment about the nurse’s competence being important to their well-being. The fourth theme was “teaching and explaining.” Twenty-one subjects (24%) mentioned teaching and/or explaining as important to well-being.

The context from which the data were extracted, the two open-ended questions asking for characteristics and behaviors important to well-being supports a relationship between these themes and well-being. The four themes from the content analysis support the SDI subscales of **connection, empathy, and trust**. Concern for the patient in time of need contains many of the same elements in the spiritual dimension connection. Most of the comments related to teaching and explaining were in the context of explaining

Table 15

Content Analysis

Units of Analysis	Theme
advocate	Concern for the patient in time of need
anticipate needs	
available	
calm me	
caring	
check on me	
check back	
comfort me	
compassionate	
concern	
encourage	
focus on me	
gentle	
help me	
lift spirits	
listen	
patient	
pay attention	

Table 15 continued

prompt (Concern for patient in time of need, cont'd)

protect

reassure

responsive

support

take time with me

talk to me

tone

touch

voice

accepting Being recognized as a person and feeling accepted

considerate

empathy

friendly

give choices

go extra mile

holistic

honest

humor

kind

like I'm special

look at me

Table 15 continued

nice (Being recognized as a person and feeling accepted)
 not condescending
 personalize care
 respect
 sincere
 smile
 understanding
 warm

explain everything they are doing and why Teaching/explaining
 explained what was going on

cleanliness Competence
 competent
 confident
 instill confidence
 knowledgeable

procedures and interventions and might fit in the category of concern for the patient in time of need. Comments such as “explained what was going on,” “explained everything they were doing and why,” and “answered my questions” were the most common responses. Recognizing and accepting the patient as an individual approximates empathy. Being competent and knowledgeable encompasses trust. Comments related to commitment, however, were rare. Three patients wrote a comment such as “showed they liked their job,” “look like they enjoy what they’re doing to help others,” and “they loved their work.” In general, the elements of connection, empathy, and trust were most evident in the results of content analysis of the open-ended questions.

Summary of Chapter Four

Construct validity of the Spiritual Dimension Inventory was supported by measurement model testing. The original study hypothesis that the spiritual dimension of the nurse-patient relationship (SDNPR) predicts well-being was tested by structural equation model testing and regression analysis. Alternate models, including SDNPR being predicted by well-being were tested. Neither the original hypothesized model nor any of the alternate models were supported by confirmatory factor analysis. The fit indices of the models were less than .90. The two best models had fit indices of .866. These two models differed only in the dependent variable. In one model the DV was SDNPR; in the other model the DV was well-being. The research conclusion drawn from these findings is that direction between the spiritual dimension of the nurse-patient relationship and well-being is unclear and the relationship is weak.

Regression analysis was not done with all the study variables due the small sample size. The sample size was adequate to do a regression analysis with five variables. **Connection, empathy, commitment, and trust** were regressed on self-confidence during stress. Fifty three percent of the variance in self-confidence was explained by **connection** ($\beta = .30$), **commitment** ($\beta = -.53$), and **trust** ($\beta = .40$). **Empathy** was not significant. When the other study variables were added to the regression, only **health** ($\beta = .19$) and **self transcendence** ($\beta = .50$) were significant; however, the sample size was not adequate to prevent Type II error.

Content analysis of the open-ended questions indicates some support for the existence and importance of the spiritual dimension of the nurse-patient relationship. Attributes of connection, understanding, acceptance, and trust were clearly evident. Commitment was mentioned less by the subjects, possibly indicating that it may be antecedent to the spiritual dimension of the nurse-patient relationship rather than an attribute.

CHAPTER FIVE

DISCUSSION

Chapter five presents a discussion of four research conclusions in terms of empirical, theoretical, and methodological considerations. First, the reliability and construct validity of the Spiritual Dimension Inventory (SDI) as a newly developed instrument were supported by the reliability coefficients and the measurement model statistics. Second, the predictive validity of the SDI was tentatively supported by the regression analysis of **connection, empathy, commitment, and trust** on self-confidence during stress. Third, the hypotheses of the spiritual dimension of the nurse-patient relationship (SDNPR) and other demographic and health related variables predicting well-being was not supported. Fourth, the importance of connection, empathy, and trust in the nurse-patient relationship for well-being, were tentatively supported by the content analysis of the open-ended questions. This chapter begins with a discussion of the conclusions about the psychometric properties of the SDI. The section on psychometrics is followed by a presentation of the limitations of the study. Next, the research conclusion that SDNPR and other demographic and health related variables do not predict well-being is deliberated. A discussion of the research conclusion that connection, empathy, and trust are important to the nurse-patient relationship follows. Chapter Five concludes with a discussion of the finding that recency of the nurse-patient interaction did not influence either SDNPR or well-being, followed by implications for research and practice.

Psychometrics of the SDI

The reliability and validity of the SDI are important in the interpretation of the findings about the proposed model and thus are addressed first in this chapter.

Reliability of the SDI

Cronbach's alpha reliability coefficients, ranging from .84 to .91 for the subscales, and .97 for the total scale, indicate that the scale has adequate reliability for a newly developed scale. The sample consisted of primarily white, female, middle-aged, well-educated, Judeo-Christian adults, who considered their health to be good despite being hospitalized for surgery. Reliability of the SDI with other populations cannot be inferred from this study's results.

Construct Validity of the SDI

Confirmatory factor analysis of measurement models of the SDI supports its construct validity. Two measurement models had fit indices of .990 or above. The values of the chi square statistics and fit indices were so nearly identical that one measurement model cannot be considered superior. The two models of SDNPR hypothesized it as a four dimensional construct, consisting of **connection, empathy, commitment, and trust**. One model hypothesized the spiritual dimension of the nurse-patient relationship as a stage model, progressing from **commitment** to **connection** to **empathy** and to **trust** (fit index = .996). The second model hypothesized all four domains as fully correlated (fit index = .990). The spiritual dimension of the nurse-patient relationship as a multidimensional construct was supported. The structure of the construct is not conclusive, although the

stage model is a slight improvement over the fully correlated model. Construct validity is limited to the demographic and health-related characteristics of the population from which the sample was drawn.

Predictive Validity of the SDI

The predictive validity of the SDI was tentatively supported by its ability to predict well-being. The Inventory of Positive Psychological Attitudes (IPPA) was used to measure well-being. The IPPA consists of two subscales, Life Purpose and Satisfaction (LPS) and Self-Confidence During Stress (SCS). The IPPA was specifically chosen for this study because SDNPR is expected to develop within a context of vulnerability. The research design, using hospitalized patients, was chosen to control for patient vulnerability. The IPPA subscale addressing well-being as self-confidence during stressful circumstances is, then, the most relevant indicator of well-being, given the sample and the study setting.

When the SDI subscales, **connection, empathy, commitment, and trust** were regressed on self-confidence during stress; three of the subscales (**connection, commitment, and trust**) explained 53% of the variance in self-confidence. The regression coefficients were .30 for **connection**, -.53 for **commitment**, and .40 for **trust**. This finding is congruent with the findings of Williams (1997) of a negative relationship between physical caring, sensitive caring, and anxiety. The elements of connection, commitment, and trust in the nurse-patient relationship encompass both physical and sensitive caring. Characteristics such as feeling special to the nurse, feeling like the nurse

cared, believing that they were more than just a job to the nurse, and trusting the nurse to be competent to care for them appear to be important to patients whether in lowering anxiety or enhancing self-confidence during stressful circumstances. The results are also congruent with Latham (1996), who found that the variable nurse support explained a portion of the variance of coping. Feeling that the nurse was there for them when they were in need, that they mattered, and that the nurse went the extra mile for them built self-confidence. Such supportive nursing behaviors described in the current study validate Latham's conclusion that support positively influences coping.

That empathy did not significantly contribute to the variance of self-confidence appears to contradict the findings of Bottorff and Morse (1994) and Olson (1995). The findings of these two studies support an association between empathy and well-being. Bottorff and Morse (1994) reported that, in their qualitative study, they found that empathy and engaged interaction between patient and nurse were important to the patients and lessened their distress. Olson's (1995) canonical analysis of empathy and distress supports a negative relationship between empathy and distress.

Two methodological considerations may explain the lack of significance between empathy and self-confidence. First, in order for a sample of 98 to detect an association between variables, the effect must be moderate or approximately .15 or greater (Cohen, 1988). If a Type II error occurred, and empathy does explain some of the variance in self-confidence, a study with a larger sample would detect an association with a small effect size. Second, self-confidence during stress as the dependent variable may not be

consistent with the operationalization of distress in the Olson (1995) study or participant descriptors of distress in the Bottorff and Morse (1994) study.

A negative relationship between professional commitment and self-confidence was unexpected. Many studies in the literature discuss patients' perceptions of nurse characteristics that are indicative of commitment in the context of well-being and confidence. Commitment was described in terms of doing more than required of the task at hand (Bottorff & Morse, 1994), going beyond routine job expectations (Morse 1991), devotion and nursing as a calling (Appleton, 1994), going the extra mile (Fosbinder, 1994), doing more than the job required (Weissman & Appleton, 1995), and nothing was too much trouble (Kralik, Koch, & Wotton, 1997). The **commitment** items on the SDI reflect these descriptions of commitment, so the negative regression coefficient is somewhat baffling. The studies, however, were all qualitative studies with no direction between the nurse's commitment and self-confidence or well-being inferred.

Perhaps commitment is more important to the nurse than to the patient. A study by Raatikainen (1997) reported that nurses who reported professional commitment were more likely to feel that they influenced patient well-being. The study did not examine patients' perceptions of the nurses' professional commitment. The results of the content analysis of the present study also fail to support the patients' view that the professional commitment is important. Of the 89 subjects who answered the open-ended questions about characteristics and behaviors of the nurse that were important to their well-being, only three wrote comments indicative of commitment.

The predictive ability of the SDI was not supported when additional variables were added to the regression on self-confidence. When age, health, social support, and self-transcendence were added to the regression, only health and self-transcendence explained the variance in self-confidence. However, the sample size was inadequate to detect even a small effect size with the addition of these variables and Type II error is possible.

Limitations of the Study

Limitations of the study related to the sample are the small sample size, convenience sampling, and a 46% response rate, raising questions about the potential subjects who did not complete the questionnaire packet. Related limitations are the failure to track and examine the potential subjects who did not return the questionnaires and to record questions and comments from the subjects when the investigator checked back with the participants. While missing data was kept to a minimum, nevertheless, it is a limitation as well. These study limitations preclude generalization to a broader population beyond the study sample. The results of the study cannot be completely trusted due to the small sample size. Type II error may have occurred. Limitations related to the study design are the placement of the open-ended questions at the end of the Spiritual Dimension Inventory. Elements of the nurse-patient interaction that had been addressed in the SDI may have been remembered and repeated in the open-ended question section, and therefore may not accurately reflect characteristics and behaviors the patient considers important to well-being.

The Model of SDNPR and Well-Being Not Supported

The results of the confirmatory factor analyses of the original hypothesized model and the competing alternate models do not support the hypothesized relationships within the models. The results, in fact, appear contradictory. The two best models with the lowest chi square statistics and the highest fit indices are both four-stage models. In both models, stage one and stage two are identical, and they hypothesize that age, life events, and social support predict health. Stages three and four of the two models are exactly reversed. One model hypothesizes that age, significant life events, social support, and health predict SDNPR, which then predicts well-being. The other model hypothesizes that age, significant life events, social support, and health predict well-being, which then predicts SDNPR. The two models, then, are identical, except in the ordering of the spiritual dimension of the nurse-patient relationship and well-being. The chi square statistics and the fit indices of these two models are so nearly identical that neither model is clearly ascendant. This finding appears to contradict the large body of literature that supports the importance of the nurse-patient relationship to well-being (Appleton, 1994; Bottorff & Morse, 1994; Cameron, 1993; Clark et al., 1991; Fareed, 1996; Fosbinder, 1994; Jensen, Back-Pettersson, & Segesten, 1996; Kralik, Koch, & Wotton, 1997; Latham, 1996; Morales, 1994; Morse, 1991; Olson, 1995; Raudonis, 1993; Raatikainen, 1997; Shubert & Lionberger, 1995; Weissman & Appleton, 1995; Williams, 1997). The vast majority of the studies were qualitative, perhaps suggesting that the nurse-patient relationship as operationalized is important but not causal. Williams' (1997) findings from

a correlational and regression analysis study lend support to the spiritual dimension of the nurse-patient relationship being important, but not causal. Williams reported moderate negative correlations between anxiety and caring, anxiety and physical caring, and anxiety and sensitive caring. But when put in a regression with other demographic and health related variables, caring increased the variance in anxiety by only 3%. Olson (1995) reported findings of a canonical correlation of empathy and patient distress operationalized as anger, anxiety, and depression. Findings indicated a strong negative relationship between empathy and distress, but the correlational nature of the study cannot be interpreted as empathy predicting lower levels of distress. Latham (1996), however, reported findings of nurse support and caring predicting improved coping, with nurse support and caring accounting for 7% of the variance.

The operationalization of the spiritual dimension of the nurse-patient relationship in the present study may differ from its operationalization in other studies. The definition of the spiritual dimension of the nurse-patient relationship in this study was the patient's perception of connection between the nurse and patient, the patient feeling understood and accepted, the patient sensing that the nurse was committed to nursing as a calling or mission in life, and the patient feeling safe and trusting in the nurse's care and ability. The studies that operationalized aspects of the nurse-patient relationship and examined their relationship to aspects of well-being defined these elements of the nurse-patient relationship as nurse support (Latham, 1996), physical and sensitive caring (Williams, 1997), and empathy (Olson, 1995).

The operationalization of the spiritual dimension of the nurse-patient relationship in the present study relied heavily on the findings of many studies on aspects of the nurse-patient relationship that are important to well-being (Appleton, 1994; Bottorff & Morse, 1994; Cameron, 1993; Fareed, 1996; Fosbinder, 1994; Jensen, Back-Pettersson, & Segesten, 1996; Kralik, Koch, & Wotton, 1997; Morales, 1994; Raudonis, 1993; Shubert & Lionberger, 1995; Weissman & Appleton, 1995). Perhaps the seemingly contrary finding of the present study that SDNPR is not predictive of well-being is a reflection of model misspecification or hypothesizing direction between the spiritual dimension of the nurse-patient relationship and well-being when no direction exists. Such an explanation is consistent with the postmodern view of nonlinearity and simultaneity (Watson, 1999). Gadow (1988) calls care “an end in itself,” (p. 5), suggesting that while it “may serve as a means of reaching a further state, it is always and above all a state that itself can be fully inhabited” (p. 6). Other authors (Morse, Solberg, Neander, Bottorff, & Johnson, 1990) propose that caring, or the spiritual dimension of the nurse-patient relationship, may be a component of a more encompassing construct, without proposing what that larger whole might be.

An acausal, simultaneous view of the relationship between SDNPR and well-being is congruent with Rogers’ view that cause and effect assumptions are inconsistent with ideas about unitary human beings and their mutual process with the environment. Life processes are phenomena of wholeness, of continuity, and of dynamic and creative change (1970, p. 84). SDNPR and well-being, as life processes, may not be causal, but rather

may parts of an indivisible whole. "Human behavior (well-being) is synergistic ... (or) unique to a whole system (the whole of the nurse and patient in relationship) and unpredicted by any component functions taken separately (1970, p. 93). A view of the person as a unitary being that is defined in part as well-being, and that continually adds new dimensions of increasing complexity, ever shaping and being shaped by the environment, is one possible explanation for the lack of direction between the spiritual dimension of the nurse-patient relationship and well-being (Rogers, 1970, p. 91).

The SDNPR may be the environment with which the patient is coextensive and mutually interacts (Rogers, 1980), similar to Nightingale's theory that nursing puts the patient in the best position for healing to occur (Nightingale, 1860/1969). Quinn (1992) suggests that the nurse becomes the safe, sacred space in which healing occurs (p. 28), a template upon which the patient repatterns, likening the nurse to a tuning fork, resonating at a healing frequency with which the patient resonates (p. 29). Direction and prediction would be antithetical to the view that the irreducible, indivisible, multidimensional energy fields of patient and environment (spiritual dimension of the nurse-patient relationship) exist in mutual, simultaneous process and exchange (Rogers, 1970, 1980).

Another possible explanation is that the variables of the spiritual dimension of the nurse-patient relationship and well-being are asymmetrical (Brunswik, 1956). Asymmetry of independent and dependent variables; or mixing relatively permanent traits with relatively transient sets, attitudes, or motivational states that vary from one time to another is discouraged in research designs (Brunswik, 1956, p. 6). In the two models, well-being

was conceptualized as life purpose and satisfaction, self-confidence during stressful circumstances, and self-transcendence. Life purpose and satisfaction, the tendency toward self-confidence during stressful circumstances, and self-transcendence may be relatively permanent traits, less influenced by present circumstances. The spiritual dimension of the nurse-patient relationship may be more transient, relative to the momentary situation. An asymmetry between the more transitory variable, the spiritual dimension of the nurse-patient relationship, and the more stable variables, life purpose and satisfaction, self-confidence during stress, and self-transcendence, may underlie the lack of predictive ability of SDNPR as it was conceptualized in this study.

Life-span developmental theory might view the spiritual dimension of the nurse-patient relationship and well-being as asymmetrical as well. Developmental processes occur at different rates. Ontogenetic development occurs over years or decades. Other developmental processes occur by microgenesis or development over days, hours, minutes, or seconds (Werner, 1957). The spiritual dimension of the nurse-patient relationship in the present study develops within the specific hospitalization experience, over hours or days, or microgenetically. Well-being, operationalized in the present study as the propensity toward self-confidence during stress, life purpose and satisfaction, and self-transcendence, is expected to develop primarily by ontogenesis, over years or decades. Meaning in life is found both in life-in-general and within specific experiences. Meaning in life within specific experiences takes into account that life varies from person to person and day to day, and relates to finding meaning in one's life at any given moment

(Frankl, 1963, p. 171). Meaning in life within specific experiences may develop microgenetically, but may have been untapped by the measurements. Although directions included instructions to answer the questions “as they relate to your current hospitalization,” when individual items are examined, many items on the life purpose and satisfaction (LPS) and self-confidence during stress (SCDS) subscales reflect attributes that develop over years or decades. For example, LPS items are “when I think deeply about life I feel (do not feel) there is a purpose to it,” “when I think about what I have done with my life I feel worthwhile (worthless),” and “when I think about my past I feel no regrets (many regrets);” and SCDS items are “When there is a great deal of pressure being placed on me I remain calm (I get tense),” and “During stressful circumstances, I experience anxiety all the time (never).” The Self-Transcendence Scale items reflect more permanent attitudes as well, such as “finding meaning in my spiritual beliefs” and “finding meaning in my past experiences.” An outcome variable, such as comfort, more sensitive to the patient’s experience of well-being in the present moment may have been more appropriate.

Studies with well-being operationalized as more the more transient concepts of coping (Latham, 1996) and state anxiety (Williams, 1997), which develop microgenetically, found significant associations with the caring relationship. Coping and state anxiety are more reflective of the experience in the present moment, rather than life-in-general, so their relationship to caring is logical in terms of the dependent variables of coping, state anxiety, and the independent variable of caring being more transient and less

permanent states that develop over relatively short periods of time.

Many of the descriptors of well-being in the qualitative studies indicate more transient states: being able to face what you are going through (Arruda, Larson, & Meleis, 1992; putting one's experience in perspective (Bottorff et.al, 1995), and being in control (Appleton, 1994; Bottorff, Gogag, & Engelberg-Lotzkar, 1995; Weissman & Appleton, 1995). Others described well-being as more permanent or stable states, such as self esteem (Wood, 1990) and self concept (Williams-Barnard & Lindell, 1992).

Finally, the possibility that nurses, more than patients, value SDNPR, may explain the lack of prediction between the spiritual dimension of the nurse-patient relationship and well-being. Studies comparing nurses' and patients' views of nursing behaviors that make patients feel cared for found both similarities and differences between the two groups. Patients and nurses both valued the nurse being pleasant, cheerful, warm, keeping commitments and emotional sensitivity. However, patients valued having physical needs met and the nurse's availability more than the nurse did (von Essen, Carlsson, & Sjöden, 1995). In another study patients ranked competency and calling the doctor as important, while nurses ranked listening, touching, being calm, talking to the patient, and sitting down with the patient as more important (von Essen & Sjöden, 1991). Two studies were reported in which family support was more important than nurse support. Morales reported results in which social support from relatives was preferred over nurse support (Morales, 1994). In another study, the relationship between nurse support, family support, and emotional affect and life-satisfaction in mothers of neonatal intensive care

unit and healthy newborns was examined. Only family support was related to the emotional affect and life-satisfaction outcomes. Nurse support did not contribute to the mothers' well-being (Coffman, Levitt, & Deets, 1991). Henneman (1989) compared stress during weaning from mechanical ventilation in a group of patients with no nurse contact and a group given verbal and tactile support during weaning. No difference in stress during weaning was noted between the two groups.

The Importance of Connection, Empathy, and Trust in the Nurse-Patient Relationship

The results of the content analysis of the two open-ended questions reveal that patients value certain aspects of the nurse-patient relationship as important to their well-being. Connection, empathy, and trust were cited most often. This conclusion is in agreement with the large body of literature on the nurse-patient relationship and elements of well-being. Commitment was rarely mentioned. Many studies in the literature discuss the nurse's commitment in the context of well-being (Appleton, 1994, Bottorff & Morse, 1994, Fosbinder, 1994, Kralik, Koch, & Wotton, 1997, Morse 1991, Weissman & Appleton, 1995). As discussed earlier in the chapter, perhaps commitment is more important to the nurse than to the patient. The results of the regression analysis in the present study also fail to support the hypothesis that the professional commitment is important to well-being.

The results of this study do lend support to the importance of the spiritual dimension of the nurse-patient relationship in patient well-being.

The Effect of Time on SDNPR and Well-Being

The recentness of the interaction between nurse and patient was expected to influence both scores on the SDI and well-being, in part because SDNPR was theorized to develop in a context of vulnerability. For that reason, subjects were recruited during the immediate post-operative experience in an effort to control for time between interaction and completion of the instrument packet. The participants in the pilot study had undergone surgery within the past year. The time between surgery and completion of the instruments for the Good Samaritan Regional Medical Center (GSRMC) and Thunderbird Samaritan Medical Center (TSMC) subjects varied between one day and two months, creating a noticeable difference in time between the pilot subjects and GSRMC/TSMC subjects.

The finding that the three groups were equivalent in all measures was unexpected. Although many of the studies reviewed did not report the time between the nurse-patient interaction and data collection, two studies reported times of one and one-half to seventeen years (Jensen, Back-Pettersson, & Segesten, 1996) and three weeks to seventeen months (Raudonis, 1993) between the interaction and the interview. The finding that scores on the SDI, the IPPA, and all other measures were not significantly different between the recent surgery patients and the within-one-year surgery patients suggests that the impact of the experience, including sense of vulnerability, is stable over time.

Implications for Practice, Education, and Research

The findings from this study raise more questions than answers, making their application to practice and education premature. Future research to evaluate the reliability of the SDI in more diverse samples is needed. Determination of reliability in samples varying more in ethnicity, education, religion, and gender would strengthen the trustworthiness of the instrument.

Future research on the internal validity and structure of the spiritual dimension of the nurse-patient relationship, as measured by the Spiritual Dimension Inventory, is suggested. Particularly, testing the measurement models in a larger, more representative sample to determine if the spiritual dimension of the nurse-patient relationship is a stage concept, or if all dimensions coexist at the same time is recommended. Respecification of the construct, the spiritual dimension of the nurse-patient relationship, perhaps deleting **commitment** and integrating competence and concern for patients' needs into the **trust** subscale, is another direction for future research.

The results do not preclude incorporating the elements of connection, empathy, commitment, and trust into nursing care and education. Further research is needed, however, to support the importance of the spiritual dimension of the nurse-patient relationship, as it was defined here, to patient outcomes. A replication of this study, specifically the regression analysis, with a larger sample would offset results due to Type II error. Respecification of the outcome of the spiritual dimension of the nurse-patient relationship as one that reflects a more transient or microgenetically developing state of

patient well-being, such as state anxiety or comfort, is recommended. Testing the model as a canonical correlation is another suggestion for future research. A correlational design is more congruent with a simultaneous, holistic view of the spiritual dimension of the nurse-patient relationship and well-being.

The theoretical framework of the importance of SDNPR to well-being can not be discounted based on the results of this study. Improved definition and measurement of the concepts as well as refining the framework to include other possible influences on both SDNPR and well-being are valid directions for future study in light of the results.

Summary of Chapter Five

The findings from this study begin to explicate the spiritual dimension of the nurse-patient relationship and examine its role in patient well-being. Four research conclusions were drawn from the study. The reliability and construct validity of the Spiritual Dimension Inventory (SDI) were supported. The predictive validity of the SDI was tentatively supported, in particular that **connection, commitment, and trust** predicted self-confidence during stress. The original hypothesized model of SDNPR and other demographic and health related variables predicting well-being was not supported. Connection, empathy, and trust were the attributes of the nurse-patient relationship cited as important to well-being in response to the open-ended questions. The study had several limitations, primarily related to small sample size, a nonprobability convenience sample, and a low response rate. Generalization to other populations, therefore, cannot be made. Further study to refine the instrument's reliability and validity and its role in health and

well-being is recommended.

APPENDIX A
HUMAN SUBJECTS



SAMANTAN RESEARCH INSTITUTE

February 29, 2000

Susan Rieck
5405 E. Cortland Blvd.#227
Flagstaff, AZ 86004-2512
United States of America

RE. The Relationship Between the Spiritual Dimension of the Nurse-Patient Relationship and Patient Well Being – Dissertation Proposal
GSRMC Protocol #965 Original Approval Date: February 29, 2000

Dear Ms. Rieck:

The above named protocol and consent document have received expedited approval from the GSRMC Institutional Review Board. You may now begin your study. A copy of the consent document that has been stamped with your IRB approval date is enclosed. You must use photocopies of this consent exclusively. **A copy of the signed consent document must be placed in the participant's permanent record at GSRMC.**

Please note that it is the policy of this institution that no research study should pose a financial burden on the patient.

The Board's approval to conduct your study will expire on **February 29, 2001**. The Board request that you submit a continuing review report on your protocol to them at least annually (**on or before January 15, 2000**) and upon completion of the project. The occurrence of adverse reactions/events must be reported to the Board in writing within 10 days of the occurrence. Any changes in the study protocol or informed consent, unusual events, results of the study or any additional information relative to the study must be submitted to the Board. In the event the study results are published, please send a copy to the Office of Research and Sponsored Projects so we may include it in your file.

If you have any questions, you may contact the IRB through the Samantan Research Institute at 602-271-9472, Monday through Friday from 9 AM to 5 PM.

Sincerely,

Joseph J. Frank, Ph.D.
Chairman
GSRMC Institutional Review Board

JJF/jck



SAMANTLAN HEALTH SYSTEM

March 14, 2000

Susan Rieck
5405 E. Cortland Blvd.#227
Flagstaff, AZ 86004-2512
United States of America

RE: The Relationship Between the Spiritual Dimension of the Nurse-Patient Relationship and Patient Well Being – Dissertation Proposal
GSRMC Protocol #965 and 965T Original Approval Date: February 29, 2000

Dear Ms. Rieck:

The above named protocol and consent document have received expedited approval from the GSRMC Institutional Review Board for the addition of Thunderbird Samantan Medical Center as a second site for the above named study. You may now enroll patients at TSMC as well as GSRMC. Please note that the GSRMC IRB considers the TSMC site as a separate study that is differentiated by the letter T following the study number. All information gathered must be reported to the IRB separately for each site. A copy of the consent document that has been stamped with your IRB approval date is enclosed. You must use photocopies of this consent exclusively. **A copy of the signed consent document must be placed in the participant's permanent record at GSRMC/TSMC.**

Please note that it is the policy of this institution that no research study should pose a financial burden on the patient.

The Board's approval to conduct your study will expire on **February 29, 2001**. The Board request that you submit a continuing review report on your protocol to them at least annually (**on or before January 15, 2000**) and upon completion of the project. The occurrence of adverse reactions/events must be reported to the Board in writing within 10 days of the occurrence. Any changes in the study protocol or informed consent, unusual events, results of the study or any additional information relative to the study must be submitted to the Board. In the event the study results are published, please send a copy to the Office of Research and Sponsored Projects so we may include it in your file.

If you have any questions, you may contact the IRB through the Samantan Research Institute at 602-271-9472, Monday through Friday from 9 AM to 5 PM.

Sincerely,

Joseph J. Frank, Ph.D.
Chairman
GSRMC Institutional Review Board

JJF/jck

GOOD SAMARITAN REGIONAL MEDICAL CENTER
The Relationship Between the Nurse-Patient Relationship and Patient Well-Being
Informed Consent

INVITATION TO PARTICIPATE

You are being asked to take part in this study because you have recently been hospitalized for surgery.

This is a nursing research study. Research studies include only patients who choose to take part. Please take your time to make your decision. Discuss it with your friends and family.

WHY IS THIS STUDY BEING DONE?

The purpose of this study is to examine the nurse-patient relationship and its contribution to patient well-being from the patient's perspective.

This research is being done because many patients experience anxiety during hospitalization for surgery, often feeling vulnerability and uncertainty. Currently we do not know whether individuals who experience positive relationships with nurses during hospitalization experience greater emotional well-being and improved physical recovery.

HOW MANY PEOPLE WILL TAKE PART IN THIS STUDY?

About 122 people will take part in the study at this site.

WHAT IS INVOLVED IN THIS STUDY?

If you take part in this study you will be given an information form about yourself to complete and five forms made up of questions for you to answer. It will take you between fifteen and thirty minutes to answer the questions. The study investigator will look at your current chart to find out how many chronic illnesses you have and how many medications you are currently taking. The researcher will pick up the questionnaires about four hours after giving them to you, or at another time that is more convenient for you.

HOW LONG WILL I BE ON THE STUDY?

We think it will take you between fifteen and thirty minutes to complete the study.

The researcher may decide to take you off this study if you leave a lot of questions unanswered.

GSRMC Institutional Review Board
Charvany 2/9/2000
 Original Approval Date

Page 1 of 4

GSRMC IRB
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 APPROVAL EXPIRES

GOOD SAMARITAN REGIONAL MEDICAL CENTER
The Relationship Between the Nurse-Patient Relationship and Patient Well-Being
Informed Consent

You can stop participating at any time. There are absolutely NO consequences of withdrawing from the study by deciding not to complete the questionnaires.

WHAT ARE THE RISKS OF THIS STUDY?

The primary anticipated risk of this study is that you may become tired or experience eye strain while completing the forms. Some of the questions may cause you emotional distress.

WHAT ARE THE REPRODUCTIVE RISKS?

There are no risks to pregnant women, women planning to become pregnant, or men planning to father a child.

ARE THERE BENEFITS TO TAKING PART IN THIS STUDY?

If you agree to take part in this study, there are no clear benefits to you. We hope the information learned from this study will benefit other patients who are hospitalized for surgery in the future.

WHAT OTHER OPTIONS ARE THERE?

It is completely up to you to decide whether or not you wish to participate in the study by completing the questionnaires.

WHAT ABOUT CONFIDENTIALITY?

Efforts will be made to keep your personal information confidential. We cannot guarantee absolute confidentiality. Your personal information may be disclosed if required by law.

In addition to the study researcher, organizations that may inspect and/or copy your research records for quality assurance and data analysis include the Good Samaritan Regional Medical Center Institutional Review Board, The University of Arizona Health Science Center Institutional Review Board, The University of Arizona Dissertation Advisory Committee.

WHAT ARE THE COSTS?

Taking part in this study will lead to no added costs to you or your insurance company.

GOOD SAMARITAN REGIONAL MEDICAL CENTER
The Relationship Between the Nurse-Patient Relationship and Patient Well-Being
Informed Consent

IS THERE COMPENSATION FOR PARTICIPATING?

You will receive no payment for taking part in this study.

WHAT HAPPENS IF I AM INJURED?

In the case of injury or illness resulting from this study, emergency medical treatment is available from Good Samaritan Regional Medical Center, but will be provided at the usual charge. No funds have been set aside to compensate you in the event of injury. You or your insurance company will be charged for continuing medical care and/or hospitalization.

This does not waive your rights in the event of negligence.

WHAT ARE MY RIGHTS AS A PARTICIPANT?

Taking part in this study is voluntary. You may choose not to take part or may leave the study at any time. Leaving the study will not result in any penalty or loss of benefits to which you are entitled.

We will tell you about new information developed during the course of the study that may affect your health, welfare, or willingness to stay in this study.

CAN I BE REMOVED FROM THE STUDY?

For your safety, your participation may be terminated by your nurse at any time without your consent.

WHOM DO YOU CALL IF YOU HAVE QUESTIONS?

For questions about the study or a research-related injury, contact the researcher Susan Rieck at 520-523-6704. You may call this number at any time and leave a message identifying yourself as a study participant. Leave your telephone number and your call will be returned within 24 hours.

If you have any questions about your rights as a research participant, contact the Good Samaritan Regional Medical Center Institutional Review Board (GSRMC IRB) at 602-271-9472, Monday through Friday, from 9AM to 5PM. This study has been approved by the GSRMC IRB.

BLANK

GOOD SAMARITAN REGIONAL MEDICAL CENTER
The Relationship Between the Nurse-Patient Relationship and Patient Well-Being
Informed Consent

VOLUNTARY STATEMENT

YOU ARE VOLUNTARILY MAKING A DECISION WHETHER OR NOT TO PARTICIPATE IN THE RESEARCH STUDY DESCRIBED ABOVE. YOUR SIGNATURE INDICATES THAT YOU HAVE READ THE INFORMATION PROVIDED ABOVE AND HAVE DECIDED TO PARTICIPATE IN THIS RESEARCH PROJECT. YOU WILL BE GIVEN A COPY OF THIS CONSENT FORM TO KEEP AND A COPY WILL BE PLACED IN YOUR MEDICAL RECORD.

SIGNATURE

I agree to take part in this study.

 Signature of Participant Date / Time

 Printed Name of Participant

 Signature of Legally Authorized Representative Date / Time

 Printed Name of Representative

 Signature of Investigator Date / Time

Susan Rieck
 Printed Name of Investigator

 Signature of Witness Date / Time

 Printed Name of Witness

 Signature of Person Obtaining Consent Date / Time

 Printed Name of Person Obtaining Consent

GSRMC IRB
 APPROVED
 FEB 29 2000
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 APPROVAL EXPIRES

THUNDERBIRD SAMARITAN MEDICAL CENTER
The Relationship Between the Nurse-Patient Relationship and Patient Well-Being
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GSRMC Institutional Review Board

February 29, 2000
Original/Approval Date

Page 1 of 1

GSRMC IRB
APPROVED

MAR 27 2000

2-28-01
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THUNDERBIRD SAMARITAN MEDICAL CENTER
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In addition to the study researcher, organizations that may inspect and/or copy your research records for quality assurance and data analysis include the Good Samaritan Regional Medical Center Institutional Review Board, The University of Arizona Health Science Center Institutional Review Board, The University of Arizona Dissertation Advisory Committee.

WHAT ARE THE COSTS?

Taking part in this study will lead to no added costs to you or your insurance company.

THUNDERBIRD SAMARITAN MEDICAL CENTER
The Relationship Between the Nurse-Patient Relationship and Patient Well-Being
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You will receive no payment for taking part in this study.

WHAT HAPPENS IF I AM INJURED?

In the case of injury or illness resulting from this study, emergency medical treatment is available from Thunderbird Samaritan Medical Center, but will be provided at the usual charge. No funds have been set aside to compensate you in the event of injury. You or your insurance company will be charged for continuing medical care and/or hospitalization.

This does not waive your rights in the event of negligence.

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Taking part in this study is voluntary. You may choose not to take part or may leave the study at any time. Leaving the study will not result in any penalty or loss of benefits to which you are entitled.

We will tell you about new information developed during the course of the study that may affect your health, welfare, or willingness to stay in this study.

CAN I BE REMOVED FROM THE STUDY?

For your safety, your participation may be terminated by your nurse at any time without your consent.

WHOM DO YOU CALL IF YOU HAVE QUESTIONS?

For questions about the study or a research-related injury, contact the researcher Susan Rieck at 520-523-6704. You may call this number at any time and leave a message identifying yourself as a study participant. Leave your telephone number and your call will be returned within 24 hours.

If you have any questions about your rights as a research participant, contact the Good Samaritan Regional Medical Center Institutional Review Board (GSRMC IRB) at 602-271-9472, Monday through Friday, from 9AM to 5PM. This study has been approved by the GSRMC IRB.

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THUNDERBIRD SAMARITAN MEDICAL CENTER
The Relationship Between the Nurse-Patient Relationship and Patient Well-Being
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SIGNATURE

I agree to take part in this study.

 Signature of Participant Date / Time

 Printed Name of Participant

 Signature of Legally Authorized Representative Date / Time

 Printed Name of Representative

Susan Rieck
 Signature of Investigator Date / Time

Susan Rieck
 Printed Name of Investigator

 Signature of Witness Date / Time

 Printed Name of Witness

 Signature of Person Obtaining Consent Date / Time

 Printed Name of Person Obtaining Consent

February 28, 2000

Dear Samaritan Health System Nurse Manager:

I am a nurse and a student at the University of Arizona. I am studying the nurse-patient relationship. I will be collecting data on your surgical floors during March, 2000.

The purpose of my study is to examine the nurse-patient relationship and its contribution to patient well-being from the patient's perspective. I am doing this study because I believe that many patients experience anxiety during illness and hospitalization. Often patients experience feelings of vulnerability and uncertainty. Hospital nurses have a unique opportunity to alleviate the anxiety that patients experience during illness and hospitalization. I hope to show that as patients experience positive relationships with nurses during illness and hospitalization, the process may facilitate patients' emotional well-being and physical recovery.

The impact that the study will have on your staff is that a nurse is required by the Samaritan Nursing Research Group to accompany me when I ask the patient to participate in the study. Patients who agree to participate in the study will be instructed by me not to ask the nurses if they have any questions about the study. I will check back with the patient participants to answer any questions. Nurses may be asked to witness the consent form.

Also, the charge nurse will be asked to identify patients who meet the criteria for inclusion in the study. Selection criteria are as follows: male or female patients; 18 years of age and older; able to read and write English; hospitalized for non life-threatening surgery; third post operative day unless discharged or transferred before the third post operative day, in which case they will be recruited on the day of discharge or transfer; and medically stable.

The study procedure requires participants to complete a patient profile form and five questionnaires on the nurse-patient relationship, social support, well-being, significant life events, and self-transcendence. The forms take between 15 and 30 minutes to complete. Participation is completely voluntary, and patients will experience no negative consequences if they choose not to take part in the study. Patient confidentiality will be maintained by not having the patient's name or medical record number appear on the questionnaires or patient profile form. Patients who agree to participate in the study must read and sign a consent form. A copy of the consent form will be placed on the patient's chart, and the patient will be given a copy of the consent.

I will also be reviewing the patients' charts for number of chronic conditions, number of medications prescribed, surgical procedure done, and date of surgery.

If you have any questions or concerns about the study, please contact me when I am on the floors collecting data. You may also call me at 520-523-6704 and leave a voice mail message. I will return your call within 24 hours. I can also be reached by digital pager 520-214-5797.

I would like to plan orientation sessions for the nurses on the floors. I will also give the nurses letters describing their role in the study. I have posters to display, which present the study, as well. I prefer to not give the nurses the rationale or the purpose of the study, however, in an attempt to limit any influence on their interaction with the patients.

I will be contacting you to plan the orientation sessions, informational letters to the nurses, and poster displays.

Please contact me with any questions or concerns.

Sincerely,

Susan Rieck, RN, MS
Doctoral Student, University of Arizona

March 6, 2000

Dear Samaritan Health System Staff Nurse:

I am a nurse and a student at the University of Arizona. I am studying the nurse-patient relationship. I will be collecting data on your surgical floors during March, 2000.

A nurse is required by the Samaritan Nursing Research Group to accompany me when I ask the patient to participate in the study, so you may be asked to introduce me to your patients. If your patient agrees to participate in the study, he or she will be instructed by me not to ask you any questions about the study. I will check back with the patient participants to answer any questions. You may be asked to witness the consent form, although their adult family members or their roommates may also witness the consent.

If you are the charge nurse, you will be asked to identify patients who meet the criteria for inclusion in the study. Selection criteria are as follows: male or female patients; 18 years of age and older; able to read and write English; hospitalized for non life-threatening surgery; third post operative day unless discharged or transferred before the third post operative day, in which case they will be recruited on the day of discharge or transfer; and medically stable.

The study procedure requires participants to complete a patient information form and five questionnaires. The forms take between 15 and 30 minutes to complete. Participation is completely voluntary, and patients will experience no negative consequences if they choose not to take part in the study. Patient confidentiality will be maintained by not having the patient's name or medical record number appear on the questionnaires or patient information form. Patients who agree to participate in the study must read and sign a consent form. A copy of the consent form will be placed on the patient's chart, and the patient will be given a copy of the consent.

I will also be reviewing the patients' charts for basic information such as medications.

If you have any questions or concerns about the study, please contact me when I am on the floors collecting data. You may also call me at 520-523-6704 and leave a voice mail message. I will return your call within 24 hours. I can also be reached by digital pager 520-214-5797.

Sincerely,

Susan Rieck, RN, MS
Doctoral Student, University of Arizona

March 6, 2000

Dear Samaritan Health System patient,

My name is Susan Rieck. I am a registered nurse. I teach nursing at Northern Arizona University. I am also a student at the University of Arizona, completing a PhD degree in nursing.

You are being asked to participate in a study about the nurse-patient relationship and its influence on well-being.

If you decide to take part in this study, it will take between 20 and 30 minutes to complete five questionnaires, an information form, and a consent form. Your name will not be on any of the forms except the consent form. The nurses will not see your answers to any of the questions.

By participating in this study you will help nurses know how to better care for patients.

If you decide to be in the study, you can change your mind at any time and quit the study. Neither myself nor the nurses who are caring for you during your hospitalization will have bad feelings toward you if you decide to quit the study. It will not affect your nursing care if you decide not to complete the study.

If you have questions while you are filling out the questionnaires, you may ask me when I return to pick up the packet of questionnaires. Please don't ask the Good Samaritan or Thunderbird Samaritan Medical Center nurses, but wait and ask me when I come back to check on how you are progressing with the questions. If you are discharged before I pick up the packet, please put it in the U.S. Mail. Postage is provided.

Thank you for your time. I wish you a speedy recovery and return to your home and to your day-to-day life.

Sincerely,

Susan

Susan Rieck, RN
520-523-6704

Script to Introduce Study and Recruit Subjects

Hi. My name is Susan Rieck. I am a registered nurse.

I am doing a study of the nurse-patient relationship.

I am asking patients here to participate in my study about whether the nurse-patient relationship influences the patient's well-being.

I am asking the patients to complete six questionnaires.

It will take between 15 and 30 minutes to complete the questionnaires.

Your name will not be on any of the forms except the consent form.

The nurses will not see your answers to any of the questions.

If you participate in this study you will help nurses know how to better care for patients.

If you decide to be in the study, you can change your mind at any time and quit the study. Neither myself nor the nurses who are caring for you during your hospitalization will have bad feelings toward you if you decide to quit the study.

Neither will it affect your nursing care if you decide to not complete the study.

If you have questions while you are filling out the questionnaires, you may ask me when I return to pick up the packet of questionnaires.

Please don't ask the Good Samaritan nurses, but wait and ask me when I come back to check on how you are progressing with the questions.

Do you have any questions?

Would you be willing to participate in the study?

No	Yes
Thank you for your time.	Please read over this consent form. Do you have any questions? Please sign the consent after you have read it over. Here is a copy of the consent form for you to keep, six questionnaires, and a pencil. I will check back no later than (state time four hours from current time). At that time I will answer any questions you may have and pick up the completed forms. Thank you.

APPENDIX B
INSTRUMENTS

PATIENT PROFILE

Patient Profile

Directions Please complete the following statements

- 1 Date _____
- 2 I am _____ female or _____ male.
- 3 I am _____ years old.
- 4 I consider myself to be
 very financially secure
 somewhat financially secure
 not financially secure
- 5 I am
 African American
 American Indian
 Asian-Pacific Islander
 Hispanic or Latino
 White Non-Hispanic
 bi-racial or multi-racial
 other
- 6 I am
 Catholic
 Protestant
 Born-Again Christian
 Eastern Religion
 Native American Church
 Other (please describe) _____
 I have no religious preference
- 7 I have completed _____ years of education.

- 8 I consider myself to be
 strongly religious or spiritually oriented
 somewhat religious or spiritually oriented
 not very religious or spiritually oriented
 not at all religious or spiritually oriented
- 9 I am married
 in a committed relationship but not married
 widowed and not married
 divorced or separated
 never married
10. I consider my health to be
 excellent
 good
 average
 fair
 poor
- 11 I have been hospitalized times in the past 12 months.

Investigator-Completed Items of the Patient Profile

12. Admission date _____
13. Date of surgery _____
14. Surgical Procedure _____
15. Number of medications for chronic conditions, excluding vitamins, herbal remedies,
and birth control pills _____
16. Number of chronic illnesses _____

SIGNIFICANT LIFE EVENT CHECKLIST

FRC/ik/oct99.084
26 October 1999

Susan Rieck
University of Arizona
5405 East Cortland Blvd #227
Flagstaff, AZ 86004-2512
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Dear Dr Rieck

*JOURNAL OF PSYCHOSOMATIC RESEARCH, Vol 11, 1967, pp213-218,
Holmes and Rahe: "The social readjustment rating scale", pp 214 and 216*

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Significant Life Event Checklist

Directions: Check each life-event or life-experience that you have had happen to you during your lifetime. In the space provided following the life event, write in the year that the event happened.

- ____1. Minor violation of the law without detention, such as appear in court, community service, or probation. year ____
- ____2. Difficulties with your employer or co-workers or in school. year ____
- ____3. Outstanding personal achievement. year ____
- ____4. Son or daughter leaving home. year ____
- ____5. Foreclosure of mortgage or loan or bankruptcy. year ____
- ____6. Death of a close friend. year ____
- ____7. Birth of a child or adoption of a child. year ____
- ____8. Having an aging parent move in with you. year ____
- ____9. Major change in health or behavior of your spouse or family member. year ____
- ____10. Retirement. year ____
- ____11. Being fired from a job or school failure. year ____
- ____12. Marriage. year ____
- ____13. Major personal illness or injury. year ____
- ____14. Death of a close family member. year ____
- ____15. Detention in jail or other institution. year: _____
- ____16. Detention in jail or other institution of a spouse or significant other. year ____
- ____17. Detention in jail or other institution of a close family member or a close friend. year ____
- ____18. Marital separation. year ____
- ____19. Divorce. year ____
- ____20. Death of your spouse or significant other. year ____

MEDICAL OUTCOMES STUDY
SOCIAL SUPPORT SURVEY

FCR/hw/june99.013
2 June 1999

S Rieck
University of Arizona
1425 East Adams Street
Tucson, AZ 85719-4202
USA

Dear Mr Rieck

SOCIAL SCIENCE AND MEDICINE, Vol 32, no 6, pp 705-714, "The MOS Social...", appendix only

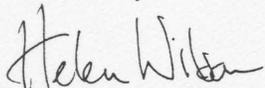
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Yours sincerely



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Cathy_Sherbourne, 05:51 PM 6/1/99 -, Re:

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Return-Path: <Cathy_Sherbourne@rand.org>
X-sent-via:/tar/Net http://www.azstarnet.com/
X-sender: cathyd@smmail
Date: Tue, 01 Jun 1999 17:51:17 -0700
To: /usan <rieck@azstarnet.com>
From: Cathy_Sherbourne <Cathy_Sherbourne@rand.org>
/subject: Re:

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Cathy_Sherbourne

At 05:58 PM 6/1/99, you wrote:

>Dear Dr. /herbourne,

>

>I am writing to ask permission to use the MO/ /social /support /survey in a
>study of the spiritual dimension of the nurse-patient relationship and well
>being. I plan to test the relationship between social support and the
>/D/NPR and also with well being.

>

>I have requested permission from the Journal, as well (/ocial /cience and
>Medicine) since it is contained therein.

>

>Thank you for your work and for any assistance in my study.

>

>/incerely,

>

>/usan Rieck, R.N, PhD(c)

>1425 East Adams /t.

>Tucson, AZ 85719-4202

>

>Doctoral /tudent, University of Arizona

>

>

MOS Social Support Survey

Next are some questions about the support that is available to you

1. About how many close friends and close relatives do you have? (People you feel at ease with and can talk to about what is on your mind) Write in the number of close friends and close relatives

People sometimes look to others for companionship, assistance, or other types of support. How often is each of the following kinds of support available to you if you need it?

Circle one number on each line.

	None of the <u>time</u>	A little of the <u>time</u>	Some of the <u>time</u>	Most of the <u>time</u>	All of the <u>time</u>
2. Someone to help you if you were confined to bed.....	1	2	3	4	5
3. Someone you can count on to listen to you when you need to talk.....	1	2	3	4	5
4. Someone to give you good advice about a crisis.....	1	2	3	4	5
5. Someone to take you to the doctor if you needed it.....	1	2	3	4	5
6. Someone who shows you love and affection.....	1	2	3	4	5
7. Someone to have a good time with.....	1	2	3	4	5
8. Someone to give you information to help you understand a situation.....	1	2	3	4	5
9. Someone to confide in or talk to about yourself or your problems.....	1	2	3	4	5
10. Someone who hugs you.....	1	2	3	4	5
11. Someone to get together with for relaxation.....	1	2	3	4	5
12. Someone to prepare your meals if you were unable to do it yourself.....	1	2	3	4	5
13. Someone whose advice you really want.....	1	2	3	4	5
14. Someone to do things with to help you get your mind off things.....	1	2	3	4	5
15. Someone to help with daily chores if you were sick.....	1	2	3	4	5
16. Someone to share your most private worries and fears with.....	1	2	3	4	5
17. Someone to turn to for suggestions about how to deal with a personal problem.....	1	2	3	4	5
18. Someone to do something enjoyable with.....	1	2	3	4	5
19. Someone who understands your problems.....	1	2	3	4	5
20. Someone to love and make you feel wanted.....	1	2	3	4	5
21. During this hospitalization I have had support from my family and friends.....	1	2	3	4	5

SELF-TRANSCENDENCE SCALE

Request Form

I request permission to copy the Self-Transcendence Scale (STS) for use in my research

entitled, The Qualitative Effects of the American Medication of the Nurse-Patient Relationship and Patient Well-Being.

In exchange for this permission, I agree to submit to Dr. Reed a copy of the following:

- 1. An abstract of my study purpose and findings, which includes the range of STS scores and the mean STS score in my group of participants, and correlations between the STS scale scores and other measures used in my study. (This will be used by Dr. Reed to assess construct validity).
- 2. The reliability coefficient as computed on the scale from my sample (Cronbach's alpha).
- 3. A copy of the one-page scoring sheet (see attached) for each participant tested or a computer print out listing this same information for each subject, along with my data coding dictionary (which identifies the variables on the print out).

Any other information or findings that could be helpful in assessing the reliability or validity of the instrument would be greatly appreciated (e.g. problems with items, comments from participants, other findings).

This data will be used to establish a normative data base for clinical populations. No other use will be made of the data submitted. Credit will be given to me in reports of normative statistics that make use of the data I submitted for pooled analyses.

Fileto

(Signature)

July 21, 1999

(Date)

Position and Full Address

Doctoral student

University of Arizona

1425 E Adams street

Tucson AZ 85719

Permission is hereby granted to copy the STS for use in the research described above.

Pamela G. Reed

Pamela G. Reed

July 22, 1999

(Date)

Please send two signed copies of this form, and a stamped, self-addressed envelope to:

Pamela G. Reed, RN, PhD, FAAN
College of Nursing
University of Arizona
Tucson, Arizona 85721

Sampling of Items from STS

Directions: Please indicate the extent to which each item below describes you. There are no right or wrong answers. I am interested in your frank opinions. As you respond to each item, think of how you see yourself at this time in your life. Circle the number that is the best response for you.

	Not at all	Very little	Some- what	Very much
Having hobbies or interests I can enjoy	1	2	3	4
Helping younger people or others in some way	1	2	3	4
Enjoying my pace of life	1	2	3	4
Accepting myself as I grow older	1	2	3	4

SPIRITUAL DIMENSION INVENTORY

Sampling of Items from SDI

Directions: Keeping in mind the nurse or nurses who had the strongest effect on you during this hospitalization, answer the following questions as to how well they describe your interaction.

5 = strongly agree

4 = agree

3 = neither agree nor disagree

2 = disagree

1 = strongly disagree

The nurse and I “clicked.”	5	4	3	2	1
----------------------------	---	---	---	---	---

The nurse was too busy to really care about me.	5	4	3	2	1
---	---	---	---	---	---

The nurse accepted me no matter what I said or did.	5	4	3	2	1
---	---	---	---	---	---

The nurse had no idea how I really felt.	5	4	3	2	1
--	---	---	---	---	---

What characteristics in the nurse are important to your well-being?

Explain what the nurse or nurses did that was important to your well-being.

INVENTORY OF POSITIVE PSYCHOLOGICAL ATTITUDES

LESLEY COLLEGE
THE GRADUATE SCHOOL OF ARTS AND SOCIAL SCIENCES



Ms. Susan Rieck, RN
University of Arizona
1425 East Adams St.
Tucson, AZ 85719-4204

May 12, 1999

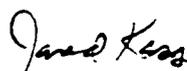
Dear Ms. Rieck, RN:

Thank you very much for your interest in the Inventory of Positive Psychological Attitudes (IPPA) and my research in health and social psychology on the relationship between positive attitudes and well-being. Your project and background sound very interesting and I look forward to hearing about the results of your work.

I am happy to give you permission to use the IPPA in your project. Enclosed is a copy of the IPPA-32R with scoring instructions. As agreed, you will inform me of the results from your work with the IPPA.

In addition, I'm also enclosing several articles which further describe the IPPA and recent directions within my work, if I haven't sent these papers to you already.

Sincerely,


Jared D. Kass, Ph.D., Professor
Director, Study Project on Well-

IPPA-32R, page 1

INVENTORY OF ATTITUDES-32R

The following pages contain a series of statements and their opposites. Notice that the statements extend from one extreme to the other. Where would you place yourself on this scale? Place a circle around the number that is most true for you at this time. Do not put your circles between numbers.

1. **During most of the day, my energy level is**
very high 1 2 3 4 5 6 7 very low
2. **When there is a great deal of pressure being placed on me**
I remain calm 1 2 3 4 5 6 7 I get tense
3. **As a whole, my life seems**
dull 1 2 3 4 5 6 7 vibrant
4. **My daily activities are**
a source of
satisfaction 1 2 3 4 5 6 7 not a source of
satisfaction
5. **During stressful circumstances, I experience anxiety**
all the time 1 2 3 4 5 6 7 never
6. **I have come to expect that every day will be**
new and
different 1 2 3 4 5 6 7 exactly the same
7. **During stressful circumstances, I am fearful**
all the time 1 2 3 4 5 6 7 never
8. **When I think deeply about life**
I feel there is a
purpose to it 1 2 3 4 5 6 7 I do not feel there
is any purpose to it
9. **I feel that my life so far has**
not been
productive 1 2 3 4 5 6 7 been productive
10. **When I have made a mistake during a stressful situation**
I feel extreme dislike
for myself 1 2 3 4 5 6 7 I continue
to like myself

IPPA-32R, page 2

Lesley College, Cambridge, MA 02138-2790

11. **I feel that the work* I am doing**
is of no value 1 2 3 4 5 6 7 is of great value
- *The definition of work is not limited to income-producing jobs. It includes childcare, housework, studies, and volunteer services.
12. **I wish I were different than who I am.**
agree strongly 1 2 3 4 5 6 7 disagree strongly
13. **At this time, I have**
clearly defined goals
for my life 1 2 3 4 5 6 7 no clearly defined
goals for my life
14. **When a situation becomes difficult, I find myself worrying that something bad is**
going to happen to me or those I love
all the time 1 2 3 4 5 6 7 never
15. **In a stressful situation,**
I can concentrate
easily 1 2 3 4 5 6 7 I cannot concentrate
easily
16. **When I need to stand up for myself**
I cannot do it 1 2 3 4 5 6 7 I can do it quite easily
17. **I feel less than adequate when I am in difficult situations.**
agree strongly 1 2 3 4 5 6 7 disagree strongly
18. **In a difficult situation, I am confident that I will receive the help I need.**
disagree
strongly 1 2 3 4 5 6 7 agree
strongly
19. **I react to problems and difficulties**
with a great deal
of frustration 1 2 3 4 5 6 7 with no frustration
20. **When sad things happen to me or other people**
I cannot feel positive
about life 1 2 3 4 5 6 7 I continue to feel
positive about life
21. **When I think about what I have done with my life, I feel**
worthwhile 1 2 3 4 5 6 7 worthless

IPPA-32R, page 3

22. **During times of stress, I feel isolated and alone.**
disagree strongly 1 2 3 4 5 6 7 agree strongly
23. **My present life**
does not satisfy me 1 2 3 4 5 6 7 satisfies me
24. **I feel joy in my heart**
never 1 2 3 4 5 6 7 all the time
25. **In really difficult situations**
I feel able to respond in positive ways 1 2 3 4 5 6 7 I feel unable to respond in positive ways
26. **When I need to relax during stressful times**
I experience a peacefulness, free of thoughts and worries 1 2 3 4 5 6 7 I experience no peace -- only thoughts and worries
27. **I feel trapped by the circumstances of my life.**
agree strongly 1 2 3 4 5 6 7 disagree strongly
28. **When I am in a frightening situation**
I panic 1 2 3 4 5 6 7 I remain calm
29. **When I think about my past**
I feel no regrets 1 2 3 4 5 6 7 I feel many regrets
30. **Deep inside myself**
I do not feel loved 1 2 3 4 5 6 7 I feel loved
31. **During stressful times in my life, I worry about the future**
never 1 2 3 4 5 6 7 all the time
32. **When I think about the problems that I have**
I do not feel hopeful about solving them 1 2 3 4 5 6 7 I feel very hopeful about solving them

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