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THE RELATIONSHIP BETWEEN A PATIENT'S STRESS LEVEL DURING HOSPITALIZATION AND HIS PERCEPTION OF HIS SIGNIFICANT FAMILY MEMBER'S ROLE IN PROVIDING SUPPORT

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TABLE OF CONTENTS

		Page
LIST OF TABLES		v
LIST OF FIGURES		vi
CHAPTER		
I.	INTRODUCTION	1
	Purpose of the Study	2
	Problem Statement	2
	Subproblems	2
	Hypothesis	2
	Definition of Terms	3
	Delimitations	4
	Limitations	5
	Assumptions	5
	Conceptual Framework	5
	Significance to Nursing	6
II.	RELATED LITERATURE	7
	Introduction	7
	Stress and Its Relationship to Health, Illness, and Hospitalization	7
	Role Theory and Its Application to Family and Illness	16
	The Role of the Nurse in Facilitating Support of the Hospitalized Patient	32
	Summary of Related Literature	37
III.	METHODOLOGY	39
	Design	39
	Sample Selection	39
	Instruments	40
	Data Collection	41
IV.	DATA ANALYSIS	44
	Introduction	44
	Sample Characteristics	44
	The Results	45
	Discussion	53

Page

CHAPTER

V. SUMMARY, CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS 57

Summary 57
Conclusions 58
Implications for Nursing. 59
Recommendations for Further Study 60

REFERENCES. 61

APPENDICES

A. THE HOSPITAL STRESS RATING SCALE. 72

B. INTERVIEW SCHEDULE. 75

C. PERMISSION TO UTILIZE THE HOSPITAL STRESS RATING SCALE. 77

D. CLEARANCE TO CONDUCT. 78

E. STATEMENT OF INFORMED CONSENT 79

F. SUBJECT INFORMATION SHEET 80

G. PERMISSION TO CONDUCT RESEARCH FROM THE UNIVERSITY COMMITTEE ON CONDUCT OF HUMAN RESEARCH. 81

VITA. 82

LIST OF TABLES

Table		Page
1.	A Summary of the Data Describing Ages, Gender, and Marital Status of the Sample	46
2.	Categories of Supportive Activities Identified	48

LIST OF FIGURES

Figure | Page

1. Percentage of Subjects Identifying Use of Supportive Activities According to Category 49

ABSTRACT

THE RELATIONSHIP BETWEEN A PATIENT'S STRESS LEVEL DURING HOSPITALIZATION AND HIS PERCEPTION OF HIS SIGNIFICANT FAMILY MEMBER'S ROLE IN PROVIDING SUPPORT

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A descriptive study was undertaken to investigate the relationship between a patient's stress level during hospitalization and his perception of his significant family member's role providing support. The following subproblems were also addressed:

(1) What types of activities, presently or potentially performed by a significant family member, does the patient perceive as supportive?

(2) What types of nursing activities, as perceived by the patient, are being done to encourage/discourage performance of family support activities?

(3) What other factors does the patient perceive as encouraging/discouraging performance of these family role-related activities?

The Hospital Stress Rating Scale (Volicer and Bohannan, 1975) was administered to 30 adult surgical patients on the third postoperative day to determine stress levels associated with hospitalization. An investigator developed semi-structured interview was also administered to these subjects to determine the patient's perception of his significant family member's role in providing support.

The data obtained from the subjects were analyzed utilizing descriptive statistics and the Spearman Rank Correlation Coefficient. Application of the Spearman Rank Correlation Coefficient revealed the finding that there was no statistically significant association between a patient's stress level and his perception of his family's role in providing support. Results of this study suggested, however, that the family does play an important supportive role during the hospitalization phase of illness.

CHAPTER I

INTRODUCTION

It is widely accepted in nursing and medical literature that illness and the process of recovery from illness may be associated with psychosocial stress. It has been proposed that a person's response to stressful stimuli will be in part a function of his psychosocial assets (Nuckolls, 1975). According to Nuckolls, properly identified resources can be utilized in an effort to thwart the adverse effects of stressful events.

Because the basic responsibility for the health and welfare of the members of society is assumed by the family unit (Koos, 1959), the family is in a primary position to assist the patient in the resolution of stress that may be associated with illness and the hospitalization experience. In spite of this, it has been noted that the health care system has not fully realized the role of the family in health-illness situations (Litman and Venters, 1979). Pratt (1976) suggested that families need to increase their involvement with professionals in the therapeutic process. According to this nurse author, a more active family role in medical management is necessary if families are going to remain highly responsible about their health care duties. Litman and Venters (1979) suggested the need to explore the role of family members in the care and treatment of institutionalized patients. This is consistent with

literature that indicated that it is the family as a unit that must adapt if it is going to remain intact in order to fulfill its functions and goals (Crawford and White, 1971).

Purpose of the Study

The purpose of this study was to identify the relationship between a patient's stress level during hospitalization and his perception of his family's role in providing support.

Problem Statement

Is there a relationship between the stress level of the adult surgical patient during hospitalization and his perception of the role of his significant family member in providing support during such hospitalization?

Subproblems

What types of activities, presently or potentially performed by a significant family member, does the patient perceive as supportive?

What types of nursing activities, as perceived by the patient, are being done to encourage/discourage performance of family support activities?

What other factors does the patient perceive as encouraging/discouraging performance of these family role-related activities?

Hypothesis

The null hypothesis tested in this research was as follows: "There is no relationship between a person's stress level during hospitalization and his perception of his significant family member's role in providing support."

Definition of Terms

Throughout this study the following operational definitions were used:

Adult patient. Any person, aged 25 through 65, admitted to and receiving surgical services (for an acute surgical condition) on any medical-surgical unit of a community hospital, excluding critical care units or any unit on which constant "one to one" care is given.

Family. A unity of interacting persons related by ties of marriage, birth, adoption (Duvall, 1971), or personal choice whose social homeostasis is altered by the patient's entrance into the acute-care hospital setting (Driver, 1977).

Significant family member. Any person identified by the patient as being a family member by the above criteria and who is recognized and accepted as being that family member who is most "important to" or "supporting of" the overall well being of the patient.

Stress. A generalized response that develops within an individual in response to any factor that disturbs the equilibrium of the organism (Selye, 1965). Reorganization of the organism is required for it to adapt or adjust to the stress, thus returning it to a state of equilibrium. The patient's stress level is reflected in the quantitative stress score obtained by administration of the Hospital Stress Rating Scale (Volicer and Bohannan, 1975).

Support. Any behavior performed by a significant family member that renders physical and/or psychological comfort and well

being to the hospitalized patient. Comfort and well being are operationalized by the subjective verbalization of the patient.

Perception. The patient's personal outlook through which he attributes meaning and purpose to his environment (Klein, 1970). It represents an interaction between environmental stimuli and the patient's internal condition (Whittaker, 1970). The patient's perception of his family member's role is operationalized by the patient's verbalization of that role.

Delimitations

The scope of this study was delimited as follows:

All patients in an Intensive Care Unit setting or being cared for on a "one to one" basis were excluded due to the critical nature of their illness.

The young adult, aged 18 through 24, whose developmental concern is one of realizing his own personal identity as well as roles (Kimmel, 1974), was excluded.

Persons over age 65 were excluded due to the possible effects of the aging process on the ability to comprehend and possible change in family resources due to death.

Persons with chronic or long-term illness, whose frequent past hospitalizations may affect role perception, were excluded.

In order to decrease sample variance, the sample was limited in the following manner:

The acute elective surgical patient was chosen.

The surgical patient who was in his third post-operative day was chosen.

Subjects were chosen from the same community hospital in order to control for philosophy of nursing care.

Limitations

The study was limited by the small sample size and by lack of reliability and construct validity data of the interview schedule devised by this investigator.

Assumptions

For the purpose of this study, the following assumptions were made:

Surgical patients are able and willing to identify stressful occurrences associated with the hospitalization experience.

Surgical patients are able and willing to identify activities, presently or potentially performed by a significant family member, perceived as supportive.

Patients are able and willing to identify nursing activities which would encourage or discourage performance of family support activities.

Patients are able and willing to identify other factors which encourage or discourage performance of family role-related activities.

Conceptual Framework

The hospitalization experience can be stressful for patients. High levels of stress are detrimental to the patient's ability to cope with illness and achieve well being. The family can be an

asset in ameliorating the stress of the hospitalized patient. In order for the nurse to correctly utilize the family in support of a patient during stressful periods, however, it is necessary that she be aware of the client's perception of the family's role in patient care.

Significance to Nursing

The function of nursing is to assist the patient in the provision and management of his own self care in order that he might achieve a maximum level of well being (Orem, 1980). Nursing, therefore, is in a position to recognize high levels of stress that may threaten the quantity or quality of self care which is necessary to sustain well being. In addition, the nurse is in a position to identify psychosocial assets that may ameliorate stress.

It is projected that the information obtained from this research can be used to assist the nurse in decisions to involve and utilize family members in a planned, purposeful manner to ameliorate patient stress and thereby promote coping with illness and achievement of well being.

CHAPTER II

RELATED LITERATURE

Introduction

The purpose of this study was to identify the relationship between a patient's stress level during hospitalization and his perception of his family's role in providing support. The selected literature review focused on the interrelated concepts of stress, family, role, and nursing care. Stress theory was examined in relation to health, illness, and hospitalization. In addition, role theory in relation to family and illness was reviewed. The role of the nurse in facilitating family support of the hospitalized patient was examined.

Stress and Its Relationship to Health, Illness, and Hospitalization

Stress

One theoretical approach to health care is stress theory. Expounded by Hans Selye as a physiological phenomenon termed General Adaptation Syndrome (Selye, 1965), the concept of physiological and psychological stress is widely accepted in medical and nursing literature.

Stress can be defined as a generalized reaction that develops within an individual in response to any factor that disturbs the equilibrium of the organism (Selye, 1965). Adaptation to the stress

is required for the organism to successfully return to a state of equilibrium. According to Frain and Valiga (1979), the human organism may adapt by changing itself to achieve concordance with its environment or by modifying the environment so that is is harmonious with the organism. Adaptation evolves in three phases: alarm reaction, stage of resistance, and stage of exhaustion (Selye, 1965).

The alarm reaction involves mobilization of resources necessary to meet demands placed upon the organism. In the second stage, the body develops a high level of resistance in order to fight the stressor, thereby returning itself to normal functioning. If the organism is unsuccessful, or if the stress is overwhelming and bodily energy is totally consumed, a state of exhaustion ensues. In this stage, the organism can no longer effectively deal with the demands placed upon it.

The ability to adapt is paramount. Adaptation contributes to the maintenance of a state of health and well being. This, in turn, serves as an energy resource for the organism to attain life goals (Frain and Valiga, 1979). Without adaptation, the ultimate outcome is illness and death.

The literature suggested that stress is multidimensional and complex in its nature and that stress reactions differ from person to person (Hefferin, 1980; Frain and Valiga, 1979; Appley and Trumbull, 1977). Susceptibility to stress is affected, first of all, by the individual's perception of the event. One cannot speculate that a specific stimulus is intrinsically stressful

(Hinkle, 1974); it depends on the meaning to the organism. According to Klein (1970), perception is the point of reality for any individual.

Other factors affect the ability of the organism to cope with stressful stimuli. Sutterly (1979) contended that one's reaction to life strain is an interplay of genetic potential, organ vulnerability, state of health, and previous experience in dealing with stress. Other authors proposed that the degree of anticipation of an event, degree of control over the event, and the nature of social support may mitigate the adverse effects of stress (Dohrenwend and Dohrenwend, 1980; Monat and Lazarus, 1977). Perlin and Schooler (1978), having investigated the life stress of 2300 subjects aged 18 through 65, found that persons best able to cope with stressful stimuli were those who developed and used a variety of responses and resources.

The literature suggested that stress affects the human organism in a multifarious fashion. Jenkins (1979) proposed that much of the stress-related research to date has been a "two variable design," that is, a noxious stimulus produces a stress response in either the physical or psychosocial domain. This author contended that a stress response takes place at the physical, psychological, interpersonal, and sociocultural levels simultaneously. Frain and Valiga (1979) expounded upon this ideology in detail using a "level" framework. According to these authors, stress responses exist on levels ranging from the routine day to day responses which are automatic to the severe stressful responses that engender a need for greater energy expenditure.

Frain and Valiga (1979) are in accord with earlier researchers in their description of the physiological phenomena associated with stress. Stressful stimuli trigger the sympathetic nervous system, adrenal, and pituitary glands, as well as the other endocrine glands, resulting in changes in the structural and chemical composition of the body (Frain and Valiga, 1979; Selye, 1976; Selye, 1965). These complex changes result in "cues" to the individual that the body is dealing with stress (Frain and Valiga, 1979). The number, severity, and duration of the cues are proportional to the organism's level of stress and may include such varied signs and symptoms as tachycardia, weakness, and gastrointestinal changes. The internal cues are then exhibited by the individual by a wide variety of physical, psychological, and social-interpersonal behaviors.

Manifestations of stress have been identified by a number of writers. Indications may include any combination of such behaviors as rapid speech, altered mannerisms, fatigue, depression, pain, insomnia, denial, aggression, or a restriction of interaction with others (Sutterly, 1979; Frain and Valiga, 1979). If the individual is able to deal with the stress in a positive manner, positive effects such as emotional growth may result. If the stress is not resolved, more severe physical or psychosocial manifestations of the stress may result. A wide variety of physical and psychosocial illnesses related to stress have been documented in the literature (Pelletier, 1977; Selye, 1976; Selye, 1965).

Recent researchers have attempted to quantify stress in order to predict illness onset. One such approach to the measurement of stress has been the development of a tool to measure social

readjustment, that is, the amount and duration of change in one's accustomed pattern of life (Holmes and Rahe, 1967). According to the Social Readjustment Rating Scale, the greater the magnitude and/or cumulative effects of stress, the greater is the likelihood that disease will occur.

Not only can stress cause illness, but illness is in and of itself a potent stressful experience (Moos and Tsu, 1977; Williams, 1974). In a study of 3000 subjects, investigators found that life changes resulting from illness are virtually equal in timing and intensity to those life changes having a causal relationship to illness (Rahe and Arthur, 1968). The life change after an illness reflects the stress resulting from the illness experience itself.

Stress and Hospitalization

There is documentation in the literature that supports the assertion that illness necessitating hospitalization produces stress that may be threatening to many people. Roberts (1978) proposed that stress affects all hospitalized patients, regardless of age or clinical setting.

In one study of 60 adult patients, it was found that newly admitted hospitalized subjects exhibited an increase in urinary corticosteroid levels on the day of admission compared to the second day (Mason, Sachar, Fishman, Hanburg, and Handlon, 1965). In another investigation suggesting the stressful nature of hospitalization, excreted potassium levels were used as a stress index (Pride, 1968).

The degree of stress associated with the hospitalization process is felt to be one factor associated with the ability of a patient to recover from an illness experience. Janis (1977) interviewed 23 patients before and after surgery. His study of stress and the effective resolution of stress provided data regarding persons at greater risk during the recovery phase. He proposed that a moderate degree of stress can have advantageous effects on the individual; too much stress can adversely affect the ability of a person to deal with and recover from an illness experience.

Additional data were presented in the literature that support the contention that stress associated with hospitalization may have detrimental physiological effects on the patient. In one study of 97 surgical patients it was found that stress affected the duration of hospitalization (Egbert, Battit, Welch, and Bartlett, 1964). The authors reported that those patients with lower stress levels were discharged on the average of 2.7 days earlier than patients with higher stress levels. Volicer and Volicer (1978) studied a group of medical and surgical patients. These investigators found that stress was positively associated with cardiovascular changes in both patient groups.

The Hospital Stress Rating Scale was developed as a measurement tool to quantify perceived stress levels associated with the experience of hospitalization (Volicer, 1974; Volicer, 1973). Volicer and Bohannan (1975) validated that the 49 events identified in the tool are in fact sources of stress to patients. A stress score can therefore be calculated for each patient by adding the individual stress scores attached to each event identified as being experienced

by the patient during a given hospitalization. It has been proposed that this tool may be used to predict illness outcome as well as to assist the caregiver in focusing on specific stressful stimuli (Meissner, 1980; Volicer, 1973).

Sources of stress during hospitalization have been the concern of some investigators. In one descriptive study of 40 patients, 31 reported a total of 73 stressful experiences associated with hospitalization (Blank, Owen, and Peay, 1961). In this study length of hospitalization and distance from home were the only factors found to differ between patients who related stress responses and those who related none. The nature of the factors found to precipitate stress were grouped into three major areas: family concern, medical concern, and hospital environment. It was found that of the 73 stress responses, there was equal division among the three major areas.

Lucente and Fleck (1972) investigated sources of stress in 408 medical and surgical patients. These authors proposed that specific characteristics of the hospitalization such as multiple procedures and altered role, as well as the nature of the illness, must be considered in identifying hospital related factors of distress.

In yet another report, analysis of data collected from 880 medical and surgical patients who were scored on the Hospital Stress Rating Scale suggested that stress factors may be clustered into nine distinct dimensions (Volicer, Isenberg, and Burns, 1977). These nine categories included (1) unfamiliarity of surroundings, (2) loss of independence, (3) separation from the spouse,

(4) financial problems, (5) isolation from other people, (6) lack of information, (7) threat of severe illness, (8) separation from the family, and (9) problems with medication.

Of these nine categories identified by Volicer, Isenberg, and Burns, those relating to loss of independence and control, as well as those relating to separation from the familiar and secure, correlate well with the sources of stress proposed by Roberts (1978). In addition, these dimensions also correlate with the major sets of adaptive tasks associated with illness that were identified by Moos and Tsu (1977).

The literature suggested that medical and surgical patients differ in both quantity and sources of stress during hospitalization (Volicer, Isenberg, and Burns, 1977). These investigators found that surgical patients reported higher stress levels when the Hospital Stress Rating Scale was used to quantify stress. Furthermore, surgical patients reported higher stress than medical patients in the categories relating to unfamiliarity of surroundings, loss of independence, and threat of severe illness. Medical patients reported greater stress levels in the dimensions of financial problems and lack of information. No difference was found in the dimensions representing separation from the spouse, isolation from other people, separation from the family, and problems with medications.

Stress Ameliorating Effects of Social Support

As stated previously, there are multiple factors affecting the ability of an organism to cope with stressful stimuli. Among

these, the nature and strength of social support has been identified by a number of authors (Perlin and Schooler, 1978; Dohrenwend and Dohrenwend, 1978; Cobb, 1976; Cassell, 1974, Aquilera and Messick, 1974; Backus and Dudley, 1974). This concept, though identified, has often been neglected as a significant stress buffering factor (Dean and Lin, 1977; Mechanic, 1974).

Social support was defined by Cobb as "information leading the subject to believe that he is cared for and loved, esteemed, and a member of a network of mutual obligations" (Cobb, 1976:300). Other theorists contended that social support is necessary to provide nourishment to one's self esteem, dependency relatedness, normative affirmation, clarification of expectations, and discharge of disturbing effects (Kaplan, Cassel, and Gore, 1977).

There was additional support for these contentions in the literature. Kissel (1965), for example, tested the hypothesis that the presence of another person in a stressful situation functions to reduce stress (N=96). This investigator found that the stress response is reduced if a person is in the presence of others known to him. The mere presence of <u>any</u> person is not sufficient to reduce stress. The other person must be someone of former interaction; the stronger the affiliation, the greater the stress reduction. Supporting this was a medically related study conducted by Nuckolls, Cassel, and Kaplan (1972). These researchers, having investigated the stress buffering effects of psychosocial support, found that favorable psychosocial assets correlated with a reduced medical complication rate of those subjects who had high stress scores compared to those subjects who had high stress scores but unfavorable

psychosocial assets. Others have suggested that social support is an essential stress ameliorating factor during hospitalization and recovery from illness (Cobb, 1974).

Dean and Lin (1977) also noted the stress buffering effects of social support. They identified seven characteristics of a group best fulfilling social support functions. These were: (1) emphasis on mutual responsibility, caring, and concern, (2) strong mutual identification, (3) emphasis on the person as a unique individual rather than on his performance, (4) face to face interaction and communication, (5) intimacy, (6) close association and bonds, and (7) provision of support, affection, security, and response. According to Dean and Lin, a "primary group" best meets these requirements; the family was identified as the unit best exemplifying the type of primary group fulfilling social support functions.

Role Theory and Its Application to Family and Illness

Family

The family is a unit of interacting personalities (Hill, 1975; Schvanveldt, 1973; Hess and Handel, 1967) which exists in societies all over the world. Murdock (1968) analyzed 250 societies and found that the nuclear conjugal family structure exists as the most common and strongest group in every known society. Other social theorists (Fleck, 1980; Parsons and Bales, 1955; Parsons, 1949) supported this position. These writers further proposed that the nuclear family is a relatively isolated unit in present day society due to effects of industrialization, urbanization,

and geographic mobility. Fleck (1980) stated that isolation adds to the critical importance of coalition in the nuclear family life.

The extended family is another structural approach to the study of the family. Parsons (1971) stated that the concept of the isolated nuclear family does not contradict the extended family structure. The extended family, according to this theorist, serves as a "reserve" in case of need. Other researchers rejected the idea of an isolated nuclear family and stated that research studies support the family kin network (Sussman and Burchinal, 1971).

In addition to the traditional conjugal/kin related family structures, variant forms of the family have been identified in modern society (Clemen, Eigsti, and McGuire, 1981; Duvall, 1971). These variant forms include other primary groups such as the institutional family, the family of adoption, or the family of mutual consent. Clemen, Eigsti, and McGuire (1981) stated that even though all of these family forms are not widely accepted, they are becoming more and more apparent in modern society.

Because the family can exist in a variety of structural forms, the necessity of constructing a "process" definition has been proposed (Stevenson, 1977). According to this author, the process definition would emphasize the functions served by cohabitation and other interactions of the groups. Further, it would communicate "a concept of the family that has utility for professional health care workers" (Stevenson, 1977:78).

According to the functionalist framework, one that emphasizes the functions served by an institution in society, the family exists to fulfill the needs of its members. Murdock (1968) found that

functions may vary from society to society, but the more functions a family fulfills, the greater its strength. Various individual functions which meet the "process" criteria have been identified in the literature (Scanzoni, 1970; Bell and Vogel, 1968; Young and Mack, 1962; Linton, 1936). Examples of these include: (1) care and rearing of children, (2) economic production, (3) sexual relationship, (4) companionship, (5) emotional support, (6) enculturation/socialization, (7) care of the aged, dependent or infirm, and (8) protection of members.

Role theory is embodied in the functionalist approach (Nye, 1976). Family function is an ongoing adjustive process (Schvanveldt, 1973) with each person fulfilling a role. Spiegal (1968) stated that the behavior of any one member of the family may be viewed in terms of his role in transaction with a role partner or partners within the family. Further, each family member has an "image" of himself and every other member in the family in relation to himself (Hess and Handel, 1967). A person's image of his family determines what he expects from it and what he gives to it. In short, one's image of his family determines how he enacts his role within the family. Role enactment by each family member, in turn, influences the degree to which functions of the family are fulfilled.

In addition to examining the relationship of one family member to another, it has been proposed that, utilizing the functionalist framework, one must examine the relationship between the family and other societal institutions (Bell and Vogel, 1968). These theorists reported that this relationship is a series of interchanges between the family and society in order that the

functions of the family might be fulfilled. This series of functional interchanges results in a balance between those contributions made by the family and those received by the family.

In general, however, family function is an ongoing process. Through mutual interaction, members of the family establish understanding of one another and the ability to negotiate uncertainty (Hess and Handel, 1967). The result of optimal family function is the provision for optimal adaptation and well being of each member (Pratt, 1976; Vincent, 1966; Lidz, 1963).

Role Theory and the Family

A fundamental element in the study of the sociology of individuals and the families of which they are a part is role theory. It "represents a collection of concepts and a variety of hypothetical formulations that predict how actors will perform in a given role, or under what circumstances certain types of behaviors can be expected" (Conway, 1978:17).

Linton (1936) noted a difference between the concepts of status and role. According to this theorist, status is a position in a particular social pattern or relationship. Robischon and Scott (1973) stated that a status may be acquired in one of several ways. A status may be (1) ascribed, that is assigned, (2) achieved based on performance and depending on the satisfaction of some prerequisite, (3) adopted, and (4) assumed, such as those in games or play. Role expectations are the attitudes, values, feelings, and behaviors associated with a particular position. Social role is the term used to describe a position together with its associated

expectations (Secord and Backman, 1964). It represents a link between the individual and the larger social structure.

Also embodied in role theory is the concept of social system (Parsons, 1951). Parsons (1951) noted that a social system consists in a plurality of individuals interacting with each other in a regularized and predictable pattern. Within a social system, goals emerge as well as some commonly shared means to pursue these goals.

Parsons' conceptualization of a social system paralleled more recent literature indicating that role theory should be viewed from an interactional framework (Turner, 1968; Turner, 1962). Conway (1978) noted that the interactional framework proposed by Turner has superseded an earlier functional perspective on roles. The functional perspective posited that behaviors are structurally determined by dominant social forces and that roles are a means to serve a functional need. The interactional framework considers not only the function of role but also the interaction involved. According to this perspective, role reciprocity, that is complementarity of roles, is considered (Robischon and Scott, 1973; Turner, 1968). This conceptualization infers that roles do not exist in an isolated fashion. Each social position has one or more counterpositions; actors occupying positions and counterpositions are known as role partners. Interaction occurs between role partners and each specific role forms as a comprehensive way of coping with alter roles (Turner, 1968).

According to Conway (1978), this perspective further posits that the individual engages in interactions with others and selects certain cues for action. Behavior patterns result from each

individual's interpretation of the cues in his environment. Behaviors include those which the individual is entitled to receive from the role partner (rights) and those one is obliged to engage in with the role partner (obligations). Turner (1968) suggested that there is a tendency toward consensus regarding the mutual rights and obligations inherent in role interaction.

An earlier related study by Bales and Slater (1955) supported Turner's contention. These researchers studied role differentiation between members in small decision making groups. The study revealed that role differentiation does occur in small groups. The researchers concluded that role differentiation leads to behavior that is expected of certain persons at certain times. They further concluded that there is a permanence of expectations arising when social interaction occurs over a broad range of situations. Popitz (1972) also implied that expected behavior patterns result from social interaction and role assumption that occur over time. This theorist referred to this conceptualization as "positional crystallization."

Review of other literature revealed that roles and role expectations need not be associated with membership in a specific social position over time. According to Biddle (1979) some roles may be defined in terms of context. Contextual specification implies that some roles are periodic, that is associated with time, some roles are associated with a specific setting or activity, and some roles result from the positional complement of those present.

In general, however, roles are tied in some meaningful way to those social situations and interactions that embed them (Biddle, 1979). Roles result in expectations. In this way the

particular social system is able to maintain a stable interaction network (Robischon and Scott, 1973). Without some stability to interaction, the social system would be unable to attain common functions and pursue common goals.

Role Performance/Role Conflict

Roles are learned through the process of socialization. The literature, however, indicated that the manner in which roles are enacted may differ from one person to another. Role enactment, according to a number of nursing and social theory authors, is affected by a number of variables. In general, these variables may be classified as either intrapersonal or interpersonal in nature.

Sarbin (1968) proposed that role performance depends on a variety of intrapersonal factors. Among these is the manner in which an individual perceives his role from cues in his environment. Sarbin related this to the accuracy of the actor in "locating" the complementary role within the social system. Other intrapersonal factors identified by Sarbin included validity of expectations held by the role partners, availability of skills of the actor to perform the role, and congruence between the self and the role. Another factor, one which is congruent with Biddle's (1979) concept of contextualized roles, relates to the actor's sensitivity to situational demands.

Robischon and Scott (1973) identified similar intrapersonal factors. In addition to those already identified, these authors included knowledge of the role, congruity with one's emotional

needs, consistency of response from others, attitude toward self, and motivation as modifying factors in the performance of a given role.

The literature revealed that interpersonal factors also affect role enactment. Understanding of interpersonal variables, however, necessitates understanding of the dynamic essence of roles, as well as basic understanding of role set theory.

According to Robischon and Scott (1973) role prescriptions are dynamic. These authors contended that socialization procedures are constantly changing and evolving in any society. In addition to evolving socialization modes, social systems themselves constantly change and evolve due to: (1) external stressors, and (2) maturational and developmental processes of individual personalities and families. As changes occur in society and social systems, changes in role prescriptions also occur. Alteration in one role necessitates alteration in the complementary role.

Merton (1968) introduced the concept of role set. According to this theorist, each social status involves not a single associated role but an array of associated roles. Secord and Backman (1964), in accordance with role set theory, noted that because an individual occupies a number of positions, he is defined in terms of a number of role categories. Behavior at any given time reflects the role expectations attached to all of the categories. According to role set theory there is always a potential for differing interpretations and expectations among those in the role set as to what is appropriate conduct for a particular status. This, in turn, could effect role performance.

The literature revealed that role conflict may originate from similar intrapersonal and interpersonal variables that affect role performance. Hurley (1978) proposed that it is common in passing through the stages of the life cycle to meet conflicting demands that must be resolved. Malaznik (1976) defined role conflict according to two dimensions: (1) when a person encounters conflicting views and/or expectations from one or more persons (i.e. significant other and/or occupant of a complementary role) in his environment concerning his expected role behavior, and (2) when an individual occupies one or more roles that mandate expected behaviors incongruous with another role's expected behavior. The circumstances associated with role conflict cited by Malaznik correlated with the defining aspects of role conflict/strain identified by other contemporary social and nursing writers (Hurley, 1978; Robischon and Scott, 1973; Merton, 1968; Turner, 1968; Secord and Backman, 1964; Turner, 1962).

Hurley (1978) stated that role conflict does not necessarily lead to ill health, rather, the appropriate handling of the learning experience of role conflict or strain can lead to healthy adaptation. Healthy adaptation, however, results from awareness of and adjustment to the intrapersonal and interpersonal factors that affect one's role performance. Adaptation to role conflict leads to stability within the affected social system and thus enables the social system to pursue its functions and goals.

Role Theory and Illness

Illness is stressful. It is one example of a stressor that may necessitate alteration in role. This role change has

generally been referred to as the "sick role." According to the recent literature, a number of authors have identified and described the sick role.

Lederer (1952) proposed that the experience of illness has three characteristic stages. These include: (1) stage of transition from health to illness, (2) period of accepted illness, and (3) convalescence. According to this author, illness is characterized by psychological and social regression and dependence on others in the environment. Dependence, according to Lederer, is adaptive and may be necessary for survival.

Kasl and Cobb (1966) also described the sick role. These theorists stated that sick role behavior is any activity undertaken by those who consider themselves to be ill. Further, this role involves a range of dependent behaviors while leading to some degree of neglect of one's usual obligations.

Parsons (1978) noted that the sick role that is adopted when a person becomes ill supersedes other roles. It represents an impairment in his usual level of social interaction and relationships with others. According to Parsons the sick role is characterized by: (1) an assertion that being sick is not the sick person's "fault," (2) exemption from normal social responsibilities and performance expectations, (3) a sharing of the positive valuation of health; he should want to get well, (4) commitment to cooperation with medical experts. Parsons (1978) further contended that because illness impairs the normal role functioning capacity of the individual, it is the responsibility of the medical experts to function

in the role of "social control" agents to enable the sick person to return to his usual role responsibilities.

According to role theory, alteration in one role necessitates concomitant alteration in the complementary role. The sick role is no exception. As Schofield (1976:267) stated, the sick role is "one that involves a set of complementary expectations concerning the patient's own actions and those with whom he interacts."

The Family and Health Care

Pratt (1976) reported that health is a resource that permits persons to fulfill goals and achieve well being. A major dimension of family function, therefore, is to protect the health and to develop the unique physical and emotional capacities of individual members. She further stated that families may be classified as "energized" or "non energized" depending on how they deal with health care matters. "The reasoning is that the level of health will be greater in families which support their members personal needs and interests, assist the member's efforts to cope and function, and tolerate and encourage members moves toward self actualization" (Pratt, 1976: 125). A family whose members are healthy are capable of effective functioning in other realms of family life.

Other literature supported Pratt's proposals. Dunn (1961), for example, stated that the family is important to health care matters. The family, according to Dunn, must remain intact so that it can operate with unity in meeting its problems. His writings have implied that the family is important in promoting the "high level wellness" of each member. Duvall (1971) stated that the

family is the primary agent for health care during all developmental stages. Ransom and Vanderhart (1973:1102) stated that the family is society's "most pervasive and enduring context of human relatedness." These authors further contended that health care must be focused upon the "ecology of relationships" within which the individual exists. In addition, skills for promoting health on the family level need to be further developed.

Litman (1974) stated that the family constitutes the most important social context within which health and illness occur. He proposed that the family serves as a primary unit in health and medical care. Fredericks and Mundy (1977) supported this earlier proposal. These theorists also noted that the family is the oldest, most permanent, and most prevalent of all social institutions. They suggested that health care cannot be fully understood unless it is examined in relationship to institutions such as the family.

Bower (1972) noted that the family is a whole that is affected by what happens to its parts. The health of its members affects the family's pattern of living, role allocation and enactment, and overall integrity. Health care, therefore, is a legitimate concern for the family as it functions to provide for the adaptation and well being of its members.

Role of the Family in Provision of Support During Illness/Hospitalization

Earlier in the history of this society, the home was the primary place in which care for the ill took place. With modern advancement, however, care of the ill has progressively moved into

an increasingly complex and specialized institution that has come to be known as the health care system (Farrell and Schmitt, 1979).

Although the basic responsibility for the health and welfare of the members of society is a family responsibility, the family has often been excluded as active members of the health care team. Keane (1969) noted that when an individual enters the hospital, he is not only separated from home and natural settings, but also from family and friends upon whom he relies for support. Those who usually offer support are placed in the role of visitors and are disqualified as helpful figures.

In related literature, Welch (1979) stated that although the stress of illness increases the need for affiliation, the hospital system enforces isolation and alienation. She further noted that relatives with the potential to alleviate stress and/or anxiety and offer support are restricted by often uncompromising hospital policies. If the family is accustomed to helping in illness related situations, these restraints may cause additional stress on the entire family system. According to Welch, hospitalization impedes the usual sources of emotional gratification and places both the patient and family in a dependent, powerless position.

Some authors (Bell and Zucker, 1968) contended that the traditional hospital setting is oriented inward and focuses on the direct consumer. This inward orientation promotes dysfunction of the family, as hospital expectations usually take no account of the structure and processes of the family.

Pratt (1976) stated that restricted participation of families in medical matters hampers the family in developing expertise and assuming rightful responsibility during illness situations.

Other authors of health care literature, on the other hand, indicated that family participation may hinder care of the hospitalized patient. These theorists contended that family involvement may promote dependence and chronic sick role behavior (Parsons and Fox, 1968).

Even though some sources reviewed indicated that the family is often placed in a powerless position during an illness situation, other references seemed to indicate that the family has an essential supportive role to fulfill in reducing the stress associated with hospitalization.

Huberty (1974) stated that adaptation to illness is not an isolated event but is an interactional process between the patient and his significant others. He further contended that the family is a necessary component in any individual's healthy response to illness and hospitalization.

Jackson (1962) noted that although many studies have been made relative to the family's role in the etiology of illness, more research needs to be conducted relative to the family's role in affecting the course of an illness. This nurse author contended that the family is crucial to the treatment and recovery of the patient.

Vincent (1966) proposed that although functions promoting adaptation are not exclusively performed by the family during hospitalization, the family has an essential adaptive function

to fulfill. According to this author, the family functions to overcome the impersonalization and alienation that may occur in the hospital setting. Vincent proposed that the family lends its support by being the flexible social unit wherein there is time and tolerance for expressing and acting out individual needs.

Various related research studies have supported the proposal that family support is a positive asset in promoting the recovery of the patient. In a descriptive survey (N=345), Croog, Lipson, and Levine (1972) found that although professional caregivers were important for immediate hospital care, the highest degree of help came from kin network. Patterns of assistance included both moral support (the most frequent) and service support. According to these researchers, the study affirmed the relative importance of the family in terms of performing functions of help and support.

Shephard and Barsotti (1975) and Shephard (1975) reported on a family centered project for patients making the transition from an acute care setting to the home. Thirty-five patients were included in the project. These health care personnel noted that patients proved to be much more emotionally resilient and physically capable when members of the family formed a familiar support system around them. The family, according to these authors, supported the patient's desire to attain the wellness state. These authors further observed that not only did the family network demonstrate realism and capability in defining their health needs but they also gave health care personnel insight into how patients and their family adapt to sometimes stressful occurrences in their own unique lifestyle.

Power (1976), having done research in the rehabilitation of the chronically ill patient felt that social and behavioral aspects of patient care were of primary importance. Noting that human illness occurs within the context of a complicated web of interpersonal relationships, he saw the family as an effective resource in assisting the patient to a state of optimal function. He proposed involving the family as an integral part in patient care.

Litman (1966) conducted an exploratory study of 100 orthopedic patients to determine the relationship between family solidarity and patient response to treatment. Although no correlation between solidarity of the family and response to treatment was found, this researcher did find evidence that the patient tended to look to and receive support and comfort from his immediate family. He found that the absence of family reinforcement was statistically ($p < .001$) associated with poor response to treatment. His study suggested that the family may play an important supportive role during the recovery phase.

The literature reviewed suggested that the family may play an essential supportive role in assisting the patient to adapt to the stress of illness and hospitalization. In spite of this fact, families are often disqualified as helpful figures in the hospital setting. As one nurse author implied, the driving force of hospitals should be to provide service to the patient and his family (Pratt, 1976). One way in which this can be accomplished is to design the hospital setting in such a way as to "involve" rather than "exclude" the family.

The Role of the Nurse in Facilitating Support of the Hospitalized Patient

The Family and Nursing Care

According to Whall (1980), all nursing theory generally deals with four central concepts: person, environment, health, and nursing. Family theory indicated that the family is an integral part of the person, his environment, and his health. Review of the literature revealed that many nursing writers and theorists also recognize the importance of the family in the delivery of holistic health care.

Francis and Munjas (1976) recognized psychosocial aspects were essential to nursing assessment. According to these authors, a prime consideration in any psychosocial nursing assessment should be the family. The nurse should consider who the family members are, how they interact with one another, and how they support one another when confronted by stressful events.

Travelbee (1971), having considered the interpersonal aspects of nursing, stated that the family is an important factor that influences an individual's response to illness. She stated that the nurse should encourage and support the family. Relatives, according to this nurse, should be accorded proper consideration by health care personnel, for in assisting the family, the nurse is actually assisting the ill person.

Other nursing authors posited that the most important members of the health care team are the patient and his family (Murray, 1976). According to this writer of nursing care literature, the

patient and family must be included by nursing as active participants in patient care rather than mere beneficiaries of the planning of other persons.

In related literature, Tapia (1972) proposed that nurses need a clearer idea of what is meant by working with a family rather than individual members. According to this author, the nurse's goal should be to help the family meet its health care needs and fulfill its functions in the most effective way. Tapia further stated that the nurse needs to initiate nursing measures that are meaningful to the family. This, in turn, would lead to greater success in helping the family reach an optimal level of functioning.

Also in related literature, Hall and Weaver (1974) noted that of all health care personnel, the nurse is most accessible to families. The nurse can work to help the family successfully meet the demands of change.

These ideas were consistent with other nursing care literature that indicated the need to be cognizant of the family in assessing and planning nursing care (Robischon, 1967). According to Robischon, the individual works out his health problems within the context of the family. One would be viewing the nursing role in the "narrowest" sense if seen as one of rendering only individual service.

Application of Stress Theory to Nursing/Utilization of Family Support to Ameliorate Patient Stress

Various authors of nursing literature have viewed stress and adaptation as distinguishing concepts applicable to the practice of nursing. Bower (1972), for example, noted that the stress

response model is highly applicable to nursing practice. According to this author, nursing is a process that helps an individual to develop the appropriate means to handle stress. She identified three types of nursing behaviors: (1) supportive, (2) generative, (3) protective. Supportive nursing behaviors help the individual cope more effectively with stress. These actions augment or complement the individual's own adaptive behaviors; they maximize the strengths of the individual. Generative behaviors help the individual develop new or different approaches for coping with stress. Protective nursing functions are measures that improve or correct a health situation.

Roberts (1978), another proponent of stress theory, proposed that the nurse needs to augment the patient's sense of security in both his internal world and in his external world. She does this by assessing the patient's level of stress, intervening to minimize stressful events, and evaluating the effects.

Another more recent nursing theorist, Watson (1979), concerned herself with the philosophy and science of caring. According to this theorist, nursing is concerned with promoting health, preventing illness, caring for the sick, and restoring health. Because of this, the focus of nursing is "care" rather than "cure." Nursing within the science of caring takes stress and adaptation into account. Nursing interventions are organized to help the individual deal with stressful situations, the person's perception of the stressful event, his or her patterns of coping with the stress, and the situational supports available.

Probably one of the most viable and unifying nursing theory approaches to stress and adaptation was that of Roy (1970, 1971, 1976). Adaptation theory, as proposed in the Roy model, is based on the assumption that man is an integrated bio-psycho-social being who is in constant interaction with the internal and external environment. Man is confronted with a variety of stimuli to which he must respond. In order to do this, he utilizes both innate and acquired coping mechanisms.

According to Roy, the condition of the person relative to adaptation is known as the adaptation level. There are three classes of stimuli that pool to determine the person's adaptation level. These are: (1) focal stimuli--the stimuli immediately confronting the person, (2) contextual stimuli--other stimuli present in the environment, and (3) residual stimuli--beliefs, attitudes, and values which have an effect on the present situation. The nurse who uses adaptation theory acts to manipulate the environment in order to decrease or remove stressful stimuli and/or, having identified appropriate coping mechanisms, takes action to support these.

Other authors of nursing literature have addressed stress and/or adaptation as approaches to nursing practice (Clemen, Eigsti, and McGuire, 1981; Murphy, 1971; Levine, 1966). The writings of these nurse experts were consistent with those proposed by Bower, Roberts, Watson, and Roy.

One method to assist the patient in the achievement of adaptation that was suggested by a majority of these nurse experts was the therapeutic use of situational support. The family was

widely identified as foremost among those offering situational support to a patient dealing with stress (Clemen, Eigsti, and McGuire, 1981; Watson, 1979; Roberts, 1978; Bower, 1972). Various approaches that can be utilized by the nurse in helping the family to support the patient were identified in the literature. Bower (1972) proposed involving the family in planning nursing care. This idea was congruent with other proposals to actively involve the family in planning and delivering care to the hospitalized patient (Murray, 1976; Pratt, 1976; Knee and Morrow, 1975).

Stevens (1974:38) suggested "helping the family to help" by teaching the family aspects of the therapeutic role of caregiver. According to this proposal, the nurse would channel the interests of the family into the directions of "restraining, maintaining, or sustaining" the patient.

Clemen, Eigsti, and McGuire (1981) noted that families use both verbal and non-verbal communication to provide support for their members. The nurse, using this framework, could assess and augment the family's supportive communication patterns.

Review of other literature indicated that illness leads to a dependent role for the patient and necessitates reorganization of role behaviors of other family members. The authors of this nursing care literature suggested that the nurse needs to consider these role changes and support any role modifications (patient and family members) that may be necessary during times of change (Peters, 1974; Robischon and Scott, 1973).

In general, a number of approaches may be used by the nurse to assist the family to support an ill member. It was noted that

each of the approaches revealed in the literature was congruent with the stress and adaptation models proposed by Bower, Roberts, Watson, and Roy.

Summary of Related Literature

This review of related literature has examined the interrelated concepts of stress, family, role, and nursing care. It was noted that stressful events disturb the equilibrium of an organism. Adaptation is paramount; it contributes to a state of health and well being. It was noted that potent stressful stimuli and/or cumulative effects of stress can result in illness. Not only can stress cause illness, but illness in and of itself was reported to be stressful. Stress associated with illness and hospitalization was examined. The literature revealed that stress can affect recovery from illness.

The literature indicated that a variety of factors affect the ability of an organism to cope with stress. Among these was the nature and strength of social support. The family was identified as the primary group best exemplifying a group fulfilling social support functions.

Family theory and role theory was examined. It was found that role expectations lend stability to the family as a social system. Stability was noted to permit the family to pursue its common functions and attain its common goals.

The literature supported the fact that health care is a legitimate concern for the family as it functions to provide for the adaptation and well being of its members. In spite of the

legitimacy of the health care function, some resources indicated that the family is often placed in a powerless position when a member is hospitalized. Other sources, however, strongly supported the proposal that the family has an essential role to fulfill in promoting the recovery of one of its members.

According to nursing theory, the identification of stress and promotion of adaptation is a viable nursing function. The literature suggested that the nurse can help to alleviate stress by utilizing the family in a therapeutic supportive role.

CHAPTER III

METHODOLOGY

Design

The framework for conducting this study was the non-experimental descriptive survey. The non-experimental design is utilized to generate new information regarding a particular subject area. Furthermore, descriptive studies allow observation of research subjects in their natural setting (Abdellah and Levine, 1965). This design met the purpose of the study which was to identify the relationship between a patient's stress level during hospitalization and his perception of his family's role in providing support.

Sample Selection

This study was conducted in a 200 bed community hospital in a Southeastern metropolitan area. Subjects were selected by means of a simple random sample from a pool of available surgical patients who were present on the medical-surgical units of this hospital and who met the criteria of the study. Adult patients aged 25 through 65 who were hospitalized for acute elective surgery were eligible for inclusion in the study.

The random selection form of sampling was utilized because this method helps to avoid possible unconscious preference selection of a biased sample (Abdellah and Levine, 1965). The sample consisted of a total of 30 subjects.

Instruments

Tow instruments were used for data collection in this study.

The Hospital Stress Rating Scale (Volicer and Bohannan, 1975) was used to quantify the patient's stress level associated with the hospitalization experience. Content and face validity was reported by Volicer as being 0.67-0.88 for low stress items and 0.72-0.94 for high stress items. Volicer obtained these values by calculating rank order correlation for two sets of ranks as a measure of consensus between two groups of patients who ranked the 49 stress events. The 49 stress items were printed on an assortment of individual cards. A copy of the Hospital Stress Rating Scale is in Appendix A.

A semi-structured interview schedule was devised by the investigator for the purpose of ascertaining the patient's perception of his significant family member's role in providing support during the hospitalization experience. Interviews are direct and provide a great deal of information in social science research (Kerlinger, 1973). It is a suitable technique for investigating feelings and to elicit information from a broad group (Treece and Treece, 1977).

The funnel technique--general to specific--was used in the interview schedule. This technique permits the interviewer to explore misunderstood areas or to identify those persons unable to comprehend (Lemon, 1973).

No reliability data for the interview schedule are available. Pilot testing for content and face validity was

conducted using eight patients and a panel of experts experienced in nursing and social sciences. A copy of the Interview Schedule is in Appendix B.

Data Collection

Consents

In addition to approval by the Committee on the Conduct of Human Research, consent for use was obtained from the author of the Hospital Stress Rating Scale. A copy of this consent is in Appendix C. Further, consent was obtained from the nursing service department of the community hospital in which the research was conducted. A copy of the Clearance to Conduct form is in Appendix D.

Potential subjects were identified by consulting the surgical schedule. Fifty percent* of the subjects who met the operational criteria were then randomly selected. The researcher discussed the study with each patient, explaining its purpose and the procedure. The patient was informed that there were no expected risks or discomfort associated with the study. He was further informed that he could withdraw from the study at any time with no effect on his care. If the subject agreed to participate in the study, a statement of informed consent was procured. A copy of the Statement of Informed Consent is in Appendix E.

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*The surgical schedules were examined in advance of the study. The number of subjects per day necessary to complete the sample size within a three-month interval was calculated. It was noted that 50% of the subjects per day who met the criteria of the study would render the necessary sample size.

The Setting

The setting in which this study was conducted was the subject's hospital room. This environment provided a convenient, comfortable milieu for the patient. In addition, the patient was afforded as much privacy as was feasible.

Procedure

Descriptive data were obtained from the subject's hospital record. This information was used to describe the characteristics of the sample. A copy of the Subject Information Sheet is in Appendix F.

Data were collected from each subject on the third post-operative day. Data collection occurred in the late afternoon between the hours of 3:30 P.M. and 8:30 P.M. The Hospital Stress Rating Scale was administered first. The cards on which stress items were printed were randomly shuffled. It was explained to the subject that each card contained a statement of a stressful occurrence associated with hospitalization. When the subject verbalized understanding of the instructions, he was asked to sort the cards, placing each in either of two stacks--yes or no; yes, if he experienced the event, no, if he did not. He was further informed that he could stop at any time to ask questions or to resort the cards. The investigator remained present during the sorting of the cards so that inquiries might be answered in a timely fashion. The average time it took to sort the cards was 10-15 minutes.

After the subject completed the card sort, the semi-structured interview devised for the purpose of ascertaining the patient's perception of his significant family's role in providing support

was administered. Subjects were allowed to ask questions at any time during the interview and to expound upon any answered item. The average time for responding to the interview was 10-15 minutes. In four cases visitors were present in the room during the interview. Two were identified as the significant family member, two were not. A non-spouse significant other did have interchange with a subject during the interview. This did not seem to influence the responses.

Data Analysis

Data were analyzed using descriptive statistics and the Spearman Rank Correlation Coefficient.

CHAPTER IV

DATA ANALYSIS

Introduction

A descriptive study of 30 adult surgical patients was conducted by the investigator to address the following problem and subproblems.

> Is there a relationship between a patient's stress level during hospitalization and his perception of his family's role in providing support?

Subproblems:

> What types of activities, presently or potentially performed by a significant family member, does the patient perceive as supportive?
>
> What types of nursing activities, as perceived by the patient, are being done to encourage/discourage performance of family support activities?
>
> What other factors does the patient perceive as encouraging/discouraging performance of these family role-related activities?

The major problem was explored using the Spearman Rank Correlation Coefficient.

Sample Characteristics

Following examination of the daily surgical schedule in a 200-bed metropolitan hospital, 30 surgical patients were randomly selected who met the operational criteria for this study. Descriptive data were obtained from the subject's hospital record for the purpose

of describing the characteristics of the sample. Table 1 represents a summary of the data describing the ages, gender, and marital status of the subjects. The mean age for the sample was 50.7 years. Twenty-two were employed; eight were not wage earners. Of the 30 subjects, 12 surgical diagnoses were observed. The most frequent of these in ascending order were: (1) hernia repair, (2) cholecystectomy, and (3) gynecological surgery.

The Results

Nominal and ordinal data were obtained using the Hospital Stress Rating Scale (Volicer and Bohannan, 1975) and a semi-structured interview schedule devised by the investigator. Stress ratings ranged from 68.1 to 820.6. The possible range on this scale was 0 to 1226; the greater score indicated the higher stress level. The mean stress rating for the sample was 298.5 (this compares with the mean stress score for surgical patients reported by Volicer et al. [1977]: $\bar{x}$=289.08; N=252). The median stress rating for the sample was 285.6. No mode was identified.

Data obtained from the interview schedule revealed that 28 subjects (93 percent) identified a supportive family member. Two patients (seven percent) did not identify a supportive person. Of the 28 who identified someone as supportive, 19 (68 percent) named their spouse. Of those who named a non-spouse supportive person, the greatest number of these were either a daughter or a son.

The descriptive data that follows answers all of the sub-problems. It is based on the responses of the 28 subjects that identified a supportive person.

Table 1

A Summary of the Data Describing Ages, Gender, and Marital Status of the Sample

Ages 25-34		Ages 35-44		Ages 45-54		Ages 55-65	
Male	Female	Male	Female	Male	Female	Male	Female
1 married	2 married 1 unmarried	2 married	2 married	3 married	6 married	6 married	5 married 2 widowed
N=4		N=4		N=9		N=13	
Total N=30							

To answer the first subproblem of the study, "What types of activities, presently or potentially performed by a significant family member, does the patient perceive as supportive?" subjects were asked a series of questions related to emotional support, physical support, and family responsibilities. When asked if the family member had done anything to render emotional comfort, 28 subjects (100 percent) were able to describe emotionally supportive activities. Two people, however, did not recognize these activities as being emotionally supportive. Emotionally supportive activities fell into eight major categories (Table 2).

When asked if the family member had done anything to render physical comfort, 23 subjects (82 percent) were able to describe physically supportive activities. Physically supportive activities fell into six major categories (Table 2).

When asked whether there had been changes in routine family responsibilities since hospitalization, 18 subjects (64 percent) responded affirmatively. Two subjects who responded negatively identified changes in family responsibilities when describing emotionally supportive activities. Family member assumption of patient responsibilities fell into three categories (Table 2). Table 2 represents a summary of the categories of emotionally supportive activities, physically supportive activities, and family responsibilities. Out of the 17 identified categories, some were identified by nearly all subjects. Figure 1 indicates percentage of subjects that identified activities in each category.

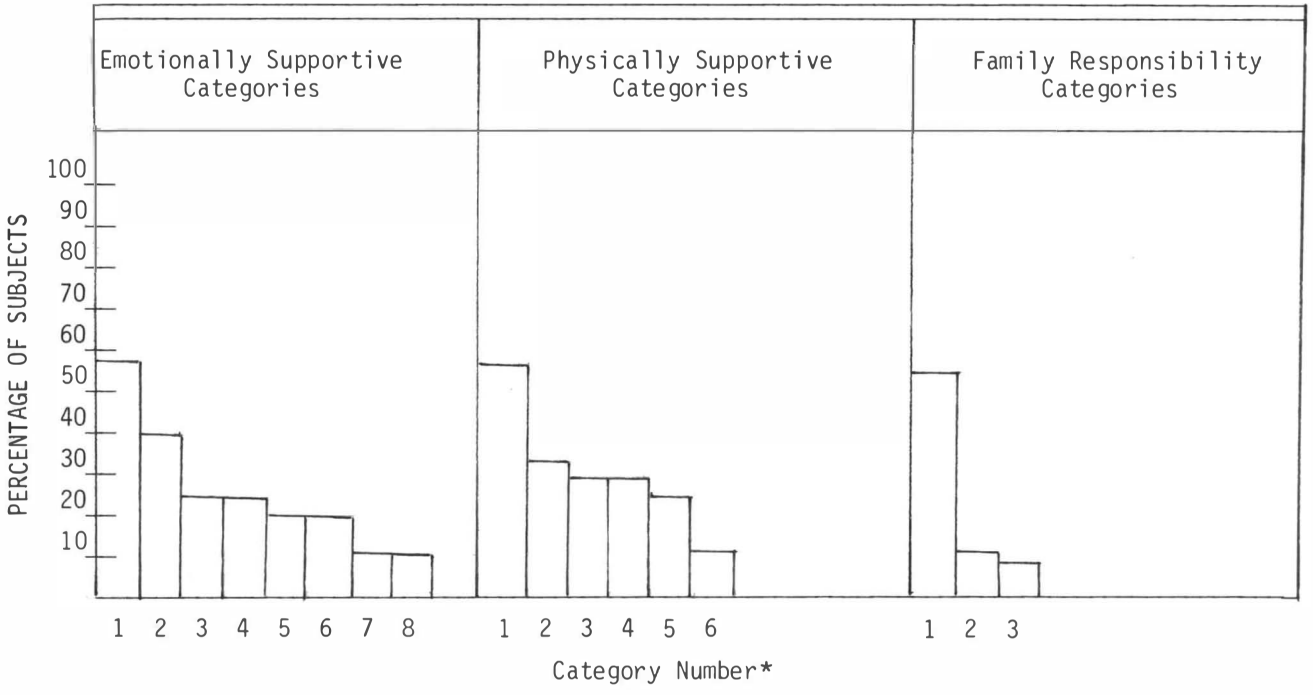
Table 2

Categories of Supportive Activities Identified

Emotionally Supportive Activities	Physically Supportive Activities	Assumption of Responsibilities
1. Personal Presence	1. Relaxational Comfort	1. Home Responsibilities
2. Physical Contact	2. Personal Assistance	2. Care of Pets
3. Moral Support	3. Personal Hygiene	3. Business Responsibilities
4. Demonstration of Concern	4. Errands	
5. Communication from Outside	5. Positional Comfort	
6. Information Validation	6. Communication Relay to Staff Regarding Physical Needs	
7. Presence During Crisis		
8. Promotion of Safety		

Figure 1

Percentage of Subjects Identifying Use of
Supportive Activities According
to Category



*Corresponds to numbers in Table 2.

Personal presence was the most frequently identified category (57 percent). Relaxational comfort measures, such as back rubs and propping pillows, was the second most frequently identified category (54 percent). The majority of supportive activities were emotional in nature.

To address the second subproblem of the study which was, "What types of nursing activities, as perceived by the patient, are being done to encourage/discourage performance of support activities?" the subject was asked two questions: (1) whether the nursing staff had assisted the family member in being supportive, and (2) what could the nursing staff do to facilitate family support. When asked whether the nursing staff had assisted the family member in being supportive, ten subjects (36 percent) answered affirmatively; 15 subjects (54 percent) replied that nursing had not provided assistance to the family member, and three (11 percent) stated that they did not know. The most frequent form of nursing assistance was provision of flexible visiting hours. Other forms of nursing assistance identified included: (1) listening, and (2) provision of a comfortable and/or caring environment for the significant other.

When asked what nursing could do to facilitate support, the majority of the subjects (82 percent, N=23) could not think of anything. Eighteen percent (N=5) of the subjects gave a variety of responses. These included: (1) to answer questions, (2) to be more attentive to the family member, (3) to work <u>with</u> the family member, (4) to respond quickly to the family member's requests, and (5) to offer words of encouragement to the family member.

In addressing the third subproblem of the study which was, "What other factors does the patient perceive as encouraging/discouraging performance of these family role-related activities?" the subject was asked what made it possible for the family member to be able to provide support. The majority of the subjects (61 percent, N=17) responded that it was his significant other's usual role and/or relationship. Other identified enabling factors included: (1) relief from home responsibilities by kin or friend network (N=6), (2) availability of time (N=5), (3) geographic proximity (N=2), and (4) financial resourcefulness (N=2).

The subject was also asked whether there were additional desired support activities that the significant other had not been able to perform. Twenty-six subjects (93 percent) replied that the family member was performing all necessary perceived support activities. Of the two subjects (seven percent) who desired additional family contact, the categories of perceived needed support included personal presence and presence during crisis.

To test the relationship referred to in the major problem, as stated in the null hypothesis "there is no relationship between a person's stress level during hospitalization and his perception of his significant family member's role in providing support," the Spearman Rank Correlation Coefficient was utilized. This statistic, often called Spearman rho (r_s), is a measure of association which requires that both research variables be measured in at least the ordinal scale so that the objects or individuals under study may be ranked in two ordered series (Siegel, 1956).

Following the procedure of Spearman rho, stress scores obtained by using the Hospital Stress Rating Scale (Volicer and Bohannan, 1975) were ordered and ranked. Nominal data representing the categories of support were converted to the ordinal scale by assigning each category a score of one. There was a total of 17 support categories, making the range of possible support scores 0 to 17. Each subject's support score represented his perception of his family's role in providing support. It was obtained by adding the number of categories identified by the subject. The range of support scores for this sample (N=30) was 0 to 7. The mean support score for the group was 4.46; the median score was 5; and the mode was 6 (N=10).

Following the procedure of Spearman rho, the support scores were ordered and ranked. Since a number of support scores were tied, the following formula was used (Siegel, 1956):

$$r_s = \frac{\Sigma x^2 + \Sigma y^2 - d^2}{2\sqrt{\Sigma x^2 \, \Sigma y^2}}$$

The Spearman rho correlation value obtained was .15. This value was tested for significance by using the t test (Siegel, 1956). It was found not to be statistically significant at the .05 level. Therefore, there was no association between the stress score and the support score. Due to this finding, the null hypothesis was not rejected.

Discussion

Based on results of the data collected in this sample of 30 adult surgical patients, there is no evidence to suggest that stress level is related to a patient's perception of his significant family member's role in providing support. The investigator speculated that although the correlation was not statistically significant, the results may have been influenced by two key factors.

First of all, it was noted that although support scores were calculated for each patient, the support score may not have been a totally accurate indicator of the patient's perception of the support he received. Each category of support was weighted equally, when perhaps certain categories were more effective in reducing patient stress than others. The fact that a majority of patients so readily responded that presence of the family member was emotionally supportive, for instance, led this investigator to speculate that this category may, in fact, be quantitatively more significant than other categories. The same was true of physical relaxational comfort measures. It was postulated that there is a need to quantify support in much the same way that stress has been quantified in order to increase the accuracy of the support score.

A second factor identified as affecting the results of this study was derived from the literature review. According to Perlin and Schooler (1978), as well as other researchers, persons best able to cope with stress were those who demonstrated and used a variety of responses and resources. Although this study attempted

to correlate the patient's stress level with the stress ameliorating factor of social support, no control was made for other stress reducing mechanisms that may have been used by the patient. This study also had no control over other environmental factors or life change events that may have heightened the patient's stress level.

Other findings of this study revealed that a significant number (93 percent) of patients perceived the family member to be fulfilling a supportive role during the hospitalization experience. This is consistent with the literature that stated that although the health care setting may disqualify the family during the hospitalization phase of illness (Welch, 1979; Keane, 1969), the family does have an important supportive role to fulfill (Pratt, 1976; Litman, 1966).

The results of this study further indicated that the family will often support the ill member in a number of realms including: (1) emotional, (2) physical, and (3) assumption of the sick member's role functions. Emotional support seemed to be most important, with physical presence being the most frequently identified form of support. This finding was consistent with Vincent's (1966) proposal that the family has an essential role in the emotional realm to overcome the impersonalization and alienation that may occur in the hospital setting.

Another interesting finding was that physical comfort measures, often thought of as the role of nursing personnel, are also being rendered by family members during hospitalization. The findings, further, revealed the importance of relaxational comfort

measures. These relaxational measures most often involved the element of touch.

The results relative to family member assumption of patient role responsibilities were consistent with Parsons' (1978) concept of the sick role. According to Parsons, the sick person is exempted from his normal responsibilities. This, in turn, necessitates concomitant alteration in the complementary role. In this study it was the home responsibilities that were redistributed to the significant other as well as other family members.

The findings of this study relative to the nurse's role in facilitating family support concerned the investigator. The majority of subjects did not perceive the nurse as assisting the family in a supportive role. It was speculated that this finding may have resulted from two possible factors. (1) Although the nurse is accessible to the family, perhaps patients do not perceive nursing as working with the family as a unit. This would be consistent with Tapia's (1972) suggestion that nurses need to know what is meant by working with a family rather than an individual. (2) Perhaps the patient, in fact, was unaware of the assistance the nursing staff had rendered in behalf of the family member. This was certainly a viable possibility considering that many surgical patients may consume a large amount of time sleeping during the first few days postoperatively due to the combined effects of surgery and medicinal agents. Perhaps physiological, safety, and stability needs were most important to nursing during the immediate postoperative period. Of necessity, support to family

members received a lower priority. Regardless, it concerned the investigator that most patients did not perceive nursing as facilitating family support nor did they perceive nursing as having a role in this area.

The results of this study pertaining to factors encouraging/discouraging family support activities were consistent with the literature on role theory. According to this study, the majority of subjects (61 percent), rather than perceiving factors as encouraging family support, perceived the family's role in providing support as the "usual" role and/or relationship. This is consistent with the literature that indicated that there is a permanence of expectations arising when social interaction occurs over a broad range of situations (Popitz, 1972; Bales and Slater, 1955). The investigator further interpreted this finding, as well as the finding indicating that 93 percent of the subjects perceived the family to be fulfilling all necessary role activities related to the illness situation, to be consistent with the literature that indicated that health care is an essential ongoing function of the family. Normal family roles and relationships do not terminate with hospitalization, rather, they continue during the hospitalization phase of illness.

CHAPTER V

SUMMARY, CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS

Summary

A descriptive study was undertaken to investigate the relationship between a patient's stress level during hospitalization and his perception of his significant family member's role in providing support. The following subproblems were also addressed:

(1) What types of activities, presently or potentially performed by a significant family member, does the patient perceive as supportive?

(2) What types of nursing activities, as perceived by the patient, are being done to encourage/discourage performance of family support activities?

(3) What other factors does the patient perceive as encouraging/discouraging performance of these family role-related activities?

The Hospital Stress Rating Scale (Volicer and Bohannan, 1975) was administered to 30 adult surgical patients on the third postoperative day to determine stress levels associated with hospitalization. An investigator developed semi-structured interview was also administered to these subjects to determine the patient's perception of his significant family member's role in providing support.

The data obtained from the subjects were analyzed utilizing descriptive statistics and the Spearman Rank Correlation Coefficient. Application of the Spearman Rank Correlation Coefficient revealed

the finding that there was no statistically significant association between a patient's stress level and his perception of his family's role in providing support (r=.15). The results, however, may have been influenced by support scores that may not have been a totally accurate indicator of the patient's perception of the support he received.

Conclusions

Based on this sample of third-day postoperative adult patients, there is no evidence to suggest that a patient's stress level during hospitalization is related to his perception of his family member's role in providing support. Results of this study suggested, however, that the family does play an important supportive role during the hospitalization phase of illness.

Three categories of support were identified: (1) emotional, (2) physical, and (3) assumption of family responsibilities. Emotionally supportive activities seemed to be most important to the patient, with physical presence of the family member the most frequently identified form of support. Physical comfort measures were noted to be rendered to the hospitalized patient by family members. Relaxational comfort measures which involved physical contact were the most frequently identified category of physical support. In addition, family members were noted to assume a number of the patient's normal responsibilities. Assumption of home responsibilities was the most frequently identified form of family role modification necessitated by hospitalization.

Other findings of this study suggested that the nurse is not being perceived by the patient as facilitating family support of the hospitalized patient. Furthermore, patients did not perceive the nurse as having a role in this area of care.

Implications for Nursing

The investigator identified several implications for nursing from the data obtained from this study. Since nursing is a profession that is accessible to the family unit, it is essential for the nurse to recognize the important supportive role that the family may play during a hospitalization experience. Nursing can assist the family in developing greater expertise in rendering emotional and physical care. It must be kept in mind, however, that this study investigated only the patient's perception of the family's supportive role. It would be necessary for the nurse to assess the family member's perception of his own role during this stressful occasion.

Another significant implication of this study is that emotional support is very important to the patient. Nurses are in a position not only to recognize the benefits of this form of care but to ensure that it is provided. In addition, physical comfort measures, especially those that involve the "hands on" approach, seem to be supportive to patients. Nurses are in a position to ensure that this form of support, also, is provided for the patient during the hospitalization phase of illness.

Recommendations for Further Study

As a result of this study, the following recommendations are proposed:

(1) Conduct the same study providing greater control over the other environmental or life change stressors, as well as over other stress reducing mechanisms, so that the role of social support in stress reduction may be more accurately determined for the hospitalized patient.

(2) Conduct a study to quantify the value of each category of support in order that the most important categories might be "weighted" accurately.

(3) Investigate the relationship between the significant family member's stress level associated with hospitalization and his perception of his own role in providing support.

(4) Conduct a study to investigate nursing's perception of its role in providing family-centered care during hospitalization as well as its role in facilitating family support.

(5) Conduct an experimental study providing one group with planned, nurse-facilitated family support activities to determine its effects on the patient's stress levels and illness outcome.

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APPENDIX A

THE HOSPITAL STRESS RATING SCALE
(Volicer and Bohannan, 1975)

Assigned Rank	Event	Mean Rank Score
1	Having strangers sleep in the same room with you.	13.9
2	Having to eat at different times than you usually do.	15.4
3	Having to sleep in a strange bed.	15.9
4	Having to wear a hospital gown.	16.0
5	Having strange machines around.	16.8
6	Being awakened in the night by the nurse.	16.9
7	Having to be assisted with bathing.	17.0
8	Not being able to get newspapers, radio, or TV when you want them.	17.7
9	Having a roommate who has too many visitors.	18.1
10	Having to stay in bed or the same room all day.	19.1
11	Being aware of unusual smells around you.	19.4
12	Having a roommate who is seriously ill or cannot talk with you.	21.2
13	Having to be assisted with a bedpan.	21.5
14	Having a roommate who is unfriendly.	21.6
15	Not having friends visit you.	21.7
16	Being in a room that is too cold or too hot.	21.7
17	Thinking your appearance might be changed after your hospitalization.	22.1

Assigned Rank	Event	Mean Rank Score
18	Being in the hospital during holidays or special family occasions.	22.3
19	Thinking you might have pain because of surgery or test procedures.	22.4
20	Worrying about your spouse being away from you.	22.7
21	Having to eat cold or tasteless food.	23.2
22	Not being able to call family or friends on the phone.	23.3
23	Being cared for by an unfamiliar doctor.	23.4
24	Being put in the hospital because of an accident.	23.6
25	Not knowing when to expect things will be done to you.	24.2
26	Having the staff be in too much of a hurry.	24.5
27	Thinking about losing income because of your illness.	25.9
28	Having medications cause you discomfort.	26.0
29	Having nurses or doctors talk too fast or use words you can't understand.	26.4
30	Feeling you are getting dependent on medications.	26.4
31	Not having family visit you.	26.5
32	Knowing you have to have an operation.	26.9
33	Being hospitalized far away from home.	27.1
34	Having a sudden hospitalization you weren't planning to have.	27.2
35	Not having your call light answered.	27.3

Assigned Rank	Event	Mean Rank Score
36	Not having enough insurance to pay for your hospitalization.	27.4
37	Not having your questions answered by the staff.	27.6
38	Missing your spouse.	28.4
39	Being fed through tubes.	29.2
40	Not getting relief from pain medications.	31.2
41	Not knowing the results or reasons for your treatments.	31.9
42	Not getting pain medication when you need it.	32.4
43	Not knowing for sure what illness you have.	34.0
44	Not being told what your diagnosis is.	34.1
45	Thinking you might lose your hearing.	34.5
46	Knowing you have a serious illness.	34.6
47	Thinking you might lose a kidney or some other organ.	35.6
48	Thinking you might have cancer.	39.2
49	Thinking you might lose your sight.	40.6

APPENDIX B

INTERVIEW SCHEDULE

INFORMATION FROM SUBJECT

1. A family is a unit of persons related by marriage, birth, adoption, or choice. How many persons are in your family unit?

2. Usually there are persons in the family who are most "important to" or "supportive of" your overall well being. Have any of your family members been particularly supportive to you during this hospitalization?

   Yes No

   If response is No, continue with question #6.
   If response is Yes, continue with next question.

3. Who is the person that you consider to be most "supportive of" or "important to" you during this hospitalization?

4. What has this person done to support you and help you be more comfortable during this hospitalization?

   A. Psychological Comfort Measures.

      Has your family member done anything to make you feel emotionally comfortable?

      Yes No

      Can you give me some examples?

   B. Physical Comfort Measures.

      Has your family member done anything to make you feel physically comfortable during your hospitalization?

      Yes No

      Can you give me some examples?

C. Family Responsibilities.

Have there been changes in your routine family responsibilities since your hospitalization?

Yes No

Has your family member assumed some of the responsibilities that you have not been able to carry out since you have been in the hospital?

Yes No

Can you give me some examples?

D. Other.

5. What things have made it possible for your family member to be able to support you?

6. Is there anything that the nurses have done to help your family member be supportive to you?

7. Are there some things that you would like this person to do to support you or help you feel more comfortable that he/she has not been able to do for one reason or the other?

Yes No

Can you give me some examples?

8. What do you see as preventing this?

9. What kinds of things could the nurses have done to help your family member be supportive to you?

APPENDIX C

[redacted]

August 16, 1980

[redacted]

Dear Dr. Volicer:

As a graduate student in medical-surgical nursing at the Medical College of Virginia, I am planning to collect research data in the field of stress and the hospitalized patient. I have studied the tool "A Hospital Stress Rating Scale" devised by yourself and Mary Wynne Bohannon and have found it to be most helpful. Because it is appropiate to the research area in which I have focused, I would like to use it as one of my thesis research tools. May I obtain your permission to do so?

I am planning to collect my data during the late summer and early fall. Your immediate attention to this matter would be most appreciated.

Thank-you for your time.

Sincerely,

[redacted]

Susan C. Johnson R. N.

APPENDIX D

MEDICAL COLLEGE OF VIRGINIA
VIRGINIA COMMONWEALTH UNIVERSITY
SCHOOL OF NURSING

CLEARANCE TO CONDUCT NUR 630 THESIS

Name of Student Susan C. Johnson [redacted]

Address [redacted]

Graduate Major Nursing

Title of Proposed Study The Relationship Between a Patient's Stress Level and His Perception of His Significant Family Member's Role in Providing Support.

ABSTRACT OF PROPOSED STUDY: This descriptive study is undertaken to identify the relationship between a patient's stress level during hospitalization and his perception of his family's role in providing support. A minimum of thirty subjects will be selected randomly from a pool of available surgical patients (third post-operative day) who are present on the medical-surgical units of Saint Lukes Hospital, Richmond Virginia. The total sample will be obtained within a six-week time frame in late summer 1980. These patients will be asked to sort a number of cards, thereby ranking their stresses during the hospitalization experience. In addition, these patients will be asked to respond to a short interview schedule concerning their perception of their family member's role during hospitalization. It is projected that the information obtained from the research can be used to assist the nurse in decisions to involve and utilize family members in a planned, purposeful manner to ameliorate patient stress and thereby promote coping with illness and achievement of well-being.

Approval:

Committee Chairperson [redacted] Date 1 July 80
MCV-VCU

Nursing Service Director, [redacted] Date July 3, 1980
Saint Lukes Hospital

APPENDIX E

STATEMENT OF INFORMED CONSENT

I agree to participate in a research study being conducted by Susan Johnson, R.N., in fulfillment of a Master of Science degree in Nursing. I understand that this project will involve my sorting forty-nine (49) cards that relate to stressful occurrences during my hospitalization. I also understand that I will be required to respond to a short interview regarding my family's response to my hospitalization. This research will involve approximately thirty (30) minutes of my time. I understand that there are no expected risks or discomforts, but that I am free to make any inquiries concerning this project. I further understand that I am free to withdraw my consent and to discontinue participation at any time. Such non-participation or discontinuance will not affect my care in any way.

Date _____

Signature _____

Witness _____

APPENDIX F

SUBJECT INFORMATION SHEET

1. Sex: Male Female
2. Age: 25-35 36-45 46-55 56-65
3. Diagnosis:
4. Wage Earner: Yes No
5. Insurance: Yes No

APPENDIX G

COMMITTEE ON THE CONDUCT OF HUMAN RESEARCH APPROVAL FORMS

TO: Ms. Susan C. Johnson (Dr. Jeanette F. Kissinger, Advisor) Principal Investigator

Dr. Marya Olgas Chairman of Department Concerned

Dr. Martha B. Conway Administrator of Research Grants & Contracts

TITLE OF INVESTIGATION: The Relationship Between a Patients' Stress Level and His Perception of His Significant Family Members' Role in Providing Support.

VCU ASSIGNED NUMBER: 7/3J/80

The Committee on the Conduct of Human Research of Virginia Commonwealth University met on July 23, 1980, and the above investigation was reviewed and approved.

You are cautioned to note that:

1. Informed, written consent is required of each human subject or his legally qualified guardian or next-of-kin, unless specifically excluded.

2. Any deviation from the above named protocol, or the identification of unanticipated problems which may involve risk to subjects, must be reported to this committee for review and approval.

3. Your study is subject to continued surveillance by this committee, and it will be reviewed periodically. The next review is scheduled for July 1981. At that time you must make available to the committee a roster of all subjects, a file of the completed permission slips and a summary of the results obtained, especially any adverse or unexpected effects.

4. All requests for information related to this investigation must include the exact title, the investigator, and the VCU Study Number as noted above.

5. This investigation has been indentified as being submitted to the Department of Health, Education and Welfare, and will be certified to H. E. W.
Yes _____ NO X

6. In some instances approval is contingent upon compliance with changes designated by the committee. If such are imposed, they are listed on an attached sheet, one copy of which must be signed and returned to the committee to indicate the investigator's acceptance of the changes. Where there is no attachment, the study was accepted.

[redacted]

Donald L. Brummer, M.D., Chairman,
Committee On The Conduct of Human Research

DLB /ad

(Revised Form Dated 5/1/76)

VITA