



Patient reactions to transfers from rural to urban health care institutions  
by Judy Diane Schmidt

A thesis submitted in partial fulfillment of the requirements for the degree OF MASTER OF  
NURSING

Montana State University

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Abstract:

Patient transfers from rural to urban hospitals are commonplace in Montana. This practice is influenced by the fact that specialized care and diagnostic equipment are located in the urban hospitals. The purpose of the study was to determine patient reactions to transfers from rural to urban health care institutions.

The study had an exploratory descriptive design. Interview questions addressed patient reactions to the rural health care institution, the transfer process, and the urban health care institution. Questions were based on the conceptual framework of Parsons' theory of sick role behavior and Wu's theory of patient needs in relation to illness.

Fourteen patients transferred from rural to urban hospitals were interviewed to determine their reactions. The data were analyzed using descriptive statistics.

The transferred patients in the study did not express any concerns in regard to the rural hospitals, the transfer process, or entry into the urban hospitals. Both participants and their families cooperated with the medical regime, including the decision for transfer. Transfer from the rural to the urban hospital was viewed as a necessary action in order to regain health.

Results of the study indicated that patients react to rural-to-urban transfers by demonstrating Parsons' sick role behavior. Concerns for costs, family separation, distance to medical care, length of stay, and others were expressed. However, these were not expressed unless patients were less seriously ill or convalescence had begun. Small sample size does not allow corroboration with Wu's theory.

Nurses were frequently identified as major care-givers during all three phases of the rural-to-urban transfer. This indicates the important role of the nurse in meeting the needs of rural patients in both rural and urban health care settings.

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*May 29, 1981*

PATIENT REACTIONS TO TRANSFERS FROM RURAL TO  
URBAN HEALTH CARE INSTITUTIONS

BY

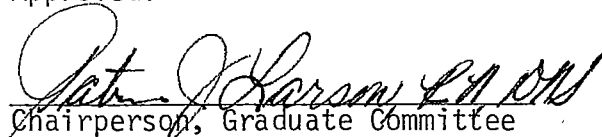
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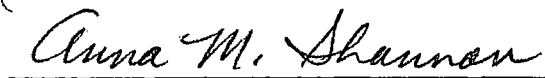
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## ABSTRACT

Patient transfers from rural to urban hospitals are commonplace in Montana. This practice is influenced by the fact that specialized care and diagnostic equipment are located in the urban hospitals. The purpose of the study was to determine patient reactions to transfers from rural to urban health care institutions.

The study had an exploratory descriptive design. Interview questions addressed patient reactions to the rural health care institution, the transfer process, and the urban health care institution. Questions were based on the conceptual framework of Parsons' theory of sick role behavior and Wu's theory of patient needs in relation to illness.

Fourteen patients transferred from rural to urban hospitals were interviewed to determine their reactions. The data were analyzed using descriptive statistics.

The transferred patients in the study did not express any concerns in regard to the rural hospitals, the transfer process, or entry into the urban hospitals. Both participants and their families cooperated with the medical regime, including the decision for transfer. Transfer from the rural to the urban hospital was viewed as a necessary action in order to regain health.

Results of the study indicated that patients react to rural-to-urban transfers by demonstrating Parsons' sick role behavior. Concerns for costs, family separation, distance to medical care, length of stay, and others were expressed. However, these were not expressed unless patients were less seriously ill or convalescence had begun. Small sample size does not allow corroboration with Wu's theory.

Nurses were frequently identified as major care-givers during all three phases of the rural-to-urban transfer. This indicates the important role of the nurse in meeting the needs of rural patients in both rural and urban health care settings.



## CHAPTER 1

### INTRODUCTION

#### Statement of the Problem

Nursing is a patient-oriented profession, providing care for patients with varied diagnoses and in different settings. With the advances in emergency medicine in the last decade, patients who have been transferred between institutions are numerous and a new challenge to both rural and urban nurses.

In Montana, transferred patients from rural to urban health care institutions are commonplace, fostered by its unique health care system. This system consists of generalists located in rural areas and specialists in urban areas. The rural area is served by medical and nursing general practitioners in small, simply-equipped hospitals. Both medical and nursing professionals in these settings must have a broad knowledge and skill base in order to care for the diversity of patients they see.

Specialty care for the Eastern part of the state is located in the cities of Billings and Great Falls. A large number of medical and nursing specialists, drawn to Montana by its wide open spaces and recreational opportunities, congregate in Billings and Great Falls. Here they practice their specialized skills, develop professional networks, and have access

to continuing education and specialized equipment. Rural patients from Eastern Montana must be transferred to Billings and Great Falls to receive these specialized services. Patients come to these settings by self-referral, physician-referral, or by being transferred from rural to urban hospitals.

Concern for transferred patients evolved from the investigator's experience in rural hospitals, which often included preparing patients for transfer to urban hospitals and assisting patients during transfers. The problems associated with distance, communications, and treatment protocols have been identified and are in the process of being solved. The distances these persons have to travel are often great, up to 350 miles in some cases. Besides travelling by car, a variety of elaborate transportation systems have developed and are used, including ground and air ambulance services. The two urban hospitals in Great Falls and Billings have taken this development one step further by providing specially equipped airplanes and helicopters and trained medical personnel for transferring patients from rural settings. Elaborate communication systems between hospitals and between ambulances are utilized. Protocols of specific treatment modalities to be administered before and during transfer are outlined and followed. Of special interest to the investigator are the patients who are transferred

to Billings.

The medical protocols of transferring patients have been carefully and deliberately developed. To the investigator, consideration for the patient has not been undertaken. What are their reactions to being transferred? Nursing is a patient-oriented profession where concern is for the total patient, including physiological, psychological, and socio-cultural factors. Reactions of transferred patients toward rural-to-urban transfer must be considered. Understanding of the transfer situation is needed if nurses are going to adequately care for rural patients and meet their total needs.

#### Purpose of the Study

The purpose of the study was to identify patient reactions to transfers from rural to urban health care institutions in relation to sick role behavior and the effects of illness and hospitalization on behavior. The actions of nurses in rural and urban settings will be addressed relative to these findings.

#### Basic Assumptions

Several basic assumptions were made regarding the study:

1. Transfers from rural to urban health care institutions can cause reactions in patients.
2. Reactions can be expressed verbally.

3. Patients are able to verbalize their reactions to transfer after 12 hours in urban health care institutions.

#### Definition of Terms

The definition of terms as used in the study are as follows:

Patient - ill person of either sex between the ages of 18 and 80, who voluntarily or involuntarily initially seeks medical treatment at a rural health care institution and is subsequently transferred to an urban health care institution for specialized care or diagnostic purposes.

Reaction - a verbal response to being transferred from rural to urban health care institutions.

Transfer - the transporting of a patient via ground, airplane, or helicopter ambulance from a rural to an urban health care institution for specialized care or diagnostic procedures and tests.

Rural Health Care Institution - any hospital functioning in a city with a population of 2,500 or less and located in Eastern and South-Central Montana and Northern Wyoming.

Urban Health Care Institution - the hospitals located in Billings, Montana: Billings Deaconess Hospital

and St. Vincent's Hospital.

Seriously ill patient - a patient transferred after stabilization from a rural to an urban health care institution for specialized care.

Less seriously ill patient - a patient transferred from a rural to an urban health care institution for diagnostic procedures and tests and subsequent treatment.

## CHAPTER 2

### REVIEW OF THE LITERATURE AND CONCEPTUAL FRAMEWORK

Review of the literature focused on two main areas. First, background information on Montana as a rural state and its health care system was reviewed. The second, and major emphasis of the literature review, focused on how patients react to illness, hospitalization, and movement into the sick role. The literature provided a conceptual framework for the study based on Wu's (1973) theory of patient needs in relation to illness, hospitalization, and treatment, and Parsons' (1958) theory of sick role behavior.

#### Montana's Health Care System

Montana is considered a rural state since 94.3% of its cities have populations of 2,500 or less (Copp, 1976; Montana Department of Highways, 1979). Montana's population is presented in Table 1.

Because of this fact, a unique health care system has developed. East of the Rocky Mountains, Montana's health care system consists of a large rural health care system dependent upon two urban health care organizations of specialized services located in Billings and Great Falls. These specialized services include

Table 1. Montana's Population Ranges and Number of Cities Within Each Range.

Population range	Number of cities within this population range
1-500	368
501-1,000	41
1,001-2,000	29
2,001-2,500	6
2,501-4,000	8
4,000-5,000	6
5,000-10,000	5
10,000-15,000	2
15,001-20,000	1
20,001-30,000	3
60,000-70,000	2

(Montana Department of Highways, 1979)

highly technical medical and nursing care and the latest diagnostic procedures and tests.

Patients that enter the health care system in rural areas are often transferred to urban areas for diagnostic procedures and tests or specialized care. Many also enter urban organizations by self-referral. The investigator's work in rural hospitals

revealed a fairly consistent practice of either transferring patients for diagnostic procedures and tests, or stabilizing patients in serious condition and transferring them for specialized care. Patients who were transferred for diagnostic reasons were not seriously ill, but were transferred to urban hospitals where special tests and diagnostic procedures could be performed and subsequent treatment administered. Transfer usually occurred after having spent several days in the rural hospital.

Seriously ill patients were stabilized and then transferred from rural to urban hospitals. This practice follows the American College of Surgeons classification system that defines the kinds of injuries hospitals are capable of handling. The classification system has four levels. Level I hospitals handle serious trauma and have some specialists. Level III hospitals handle moderate injuries, such as "uncomplicated injuries and chest injuries, but no neurological, cardiac, or abdominal injuries" ("Transfer of Patients," 1980:140). Level IV hospitals provide stabilization and management of major bodily injuries followed by the transfer of the patient to a hospital classified at a higher level ("New Rules for Trauma Care," 1980:227). According to this system, Montana's rural hospitals meet the requirements for classification at Level III or IV, necessitating transfer of seriously ill patients to



Level II hospitals. Billings' hospitals, the urban health care organizations selected for this study, meet Level II requirements, although "no formal designation process for hospital classification has been made in Montana" (Dawson, 1981).

Rural hospitals are unable to provide adequate critical care delivery for seriously ill patients because of problems with geography, financing, and utilization, as identified by the Montana Health Systems Agency, Inc. (1979:4-45). The distance between hospitals in Montana necessitates the need for small hospitals to have the capacity to treat critically ill patients. This service is likely to be provided at a loss to rural hospitals. Because of low utilization there is decreased staff proficiency in the ability to provide care. Continuing education is needed to maintain staff skills, yet small hospitals do not have staff flexibility to allow time for these programs or funding to send staff to programs in distant communities (Montana Health Systems Agency, Inc., 1979:4-45). Ellis, in a survey of 36 registered nurses in Western Montana, identified problems rural hospitals have in regard to emergency care delivery. These included staffing problems, keeping skills up-dated, lack of facilities, and lack of equipment (1980:47).

It has been noted that professional people with specialized knowledge are attracted to urban rather than rural areas (Hurlburt, 1975; Hassinger, 1976). "With increasing specialisation, transfer of critically ill patients to special units is likely to increase" (Waddell, 1975:1939). Transferring patients for specialized care and diagnostic procedures and tests is also reported by Hassinger, who states that general practitioners in rural areas depend on urban specialists for medical services (1976:174).

The yellow pages of Billings' telephone directory list 173 medical and surgical specialists currently in practice. (The Mountain States Telephone and Telegraph Co., 1980:468-472). Medical services include emergency medicine, cardiology, endocrinology, nephrology, neurology, ophthalmology, and pulmonary diseases. Surgical services include areas of cardiovascular, neurological, orthopedic, thoracic, ophthalmologic, and plastic surgery (The Mountain State Telephone and Telegraph Co., 1980:472-6). Among the specialty areas supplied by Billings' hospitals are a dialysis unit, a burn treatment unit, two computerized axial tomogram (C.A.T.) scanners, and open heart surgery. The availability of these specialized services in Billings is a major reason for many of the rural-to-urban transfers.

Billings' specialists offer their services to a broad geographic area which includes South-Central and Eastern Montana and parts of Northern Wyoming. Data in Table 2 are from Research Services West (1979) and depict the percentage of each county's residents discharged from Montana's rural hospitals between July and December, 1978 and admitted to the urban health centers of Billings Deaconess Hospital or St. Vincent's Hospital (1979:15). These counties compose South-Central and Eastern Montana, the rural areas served by the urban health care institutions of Billings. Billings' hospitals receive a significant percentage of patients from these surrounding counties, with 28.2% of St. Vincent's hospital patients and 44% of Billings Deaconess Hospital patients being from them (Research Services West, 1979).

#### Patient Reactions to Transfers

Review of literature did not reveal any specific studies regarding patient reactions to transfers from rural to urban health care institutions. The literature addressed only intra-hospital and inter-agency transfers. Data regarding intra-hospital transfers were specific to the transferring of patients in general and transferring coronary care unit patients in particular. Several studies of intra-hospital transfers revealed

Tabel 2. Montana Counties and Percentage of Residents Who went to either Billings' hospitals between July and December 1978.

County	Percentage	County	Percentage	County	Percentage
Yellowstone	97.4%	Sweet Grass	33.7%	Custer	15.5%
Musselshell	93.0	Wheatland	30.2	Sheridan	10.8
Golden Valley	71.2	Powder River	29.6	Richland	10.6
Big Horn	62.1	Dawson	19.5	Park	9.8
Carbon	59.0	Wibaux	18.8	McCone	9.1
Rosebud	54.2	Fallon	18.7	Roosevelt	8.7
Treasure	49.0	Carter	17.7	Daniels	8.3
Petroleum	47.7	Prairie	17.4	Fergus	7.7
Stillwater	38.9	Garfield	15.6	Valley	5.9

(Research Services West, 1979:15)

controversial findings with reports of favorable, neutral, and detrimental effects on patients (Kornfeld, 1968; Shannon, 1973; Smith, 1976; Welch, 1977; Toth, 1980). Data regarding inter-agency transfers were in relation to the elderly and the newborn. Transferring the elderly was seen as a risk with reported increased mortality rates (Selifman, 1974; Zweig and Csank, 1975; Birren and Schaie, 1977; Hasselkus, 1978; Fanslow and Masset, 1979). Transferring the newborn was reported as having definite physical benefits that had to be weighed against the importance

of parent-baby bonding (Toohey and Goldsmith, 1977; Young, 1978).

### Conceptual Framework

The literature on Wu's (1974) theory of patient needs in relation to illness, hospitalization, and treatment, and Parsons' (1958) theory of sick role behavior provides a conceptual framework for the study. The following examination of the literature addresses the concepts.

#### Patient Needs

Wu's (1973) theory of patient needs addresses the stresses of illness, hospitalization, and treatment. Wu identified hospitalization and treatment as "stressors that the individual may have to deal with in addition to the illness itself" (1973:47). Transfers made within the hospital are seen as a potential additional stress. "Not only must they learn to adjust to a single ward but in today's hospitals it is not uncommon to have to adjust to several areas. This frequent movement and change of environments can become an added stress for many patients" (Wu, 1973:67).

Patient needs in relation to stresses of illness, hospitalization, and treatment to which Wu refers are operationalized in the study as patient concerns. These include concerns about costs, family separation, fear of the unknown, and modes

of transportation used transferring patients.

Costs associated with medical care increase with transfer. Added expenses of the transportation to the second medical facility, specialized care, and the cost of motels and meals for family members, as well as maintaining part of the family in the home, may be concerns of transferred patients. Locke reported that patient transfers to urban areas for specialized care can cause emotional and economic problems (1978:23). Wu is in agreement stating that "factors other than those that initiated the illness process can significantly influence its courses and outcome. For example, financial worries could slow down and impede full recovery" (1973:12).

In addition to financial concerns, patients have concerns about separation. Hospitalization means separation of patients from family and friends, support systems utilized in everyday life and times of crisis (Caplan, 1964; Wu, 1973). Separation leaves patients feeling isolated and helpless. When patients are transferred and hospitalization is at a distance from the family home, the effects of stress may be more severe. Transferred patients are temporarily cut off from all previous systems of support. "It is the simultaneous rupture of a whole range of existing relationships that makes relocation

psychologically taxing for many" (Toffler, 1970:103).

As a consequence of hospitalization, social contacts are limited. Separation not only affects patients, but family and friends as well. These significant others must readjust their lives (Caplan, 1964:115).

Transferred patients are cared for at distant hospitals which further accentuates the separation from family and friends. Most people in the Eastern half of the United States are within 100 miles of health care facilities. This is not the case in the Western part of the United States (Hassinger and Whiting, 1976). Hospitalization at considerable distance from home was identified by Volicer, in two studies of stressful events associated with hospitalization, as being a highly stressful event (Volicer, 1973; 1974). In contrast, Snyder, in a study of 15 home dialysis patients in Western Montana, found that distances up to 900 miles were defined as being close and convenient in terms of travel to health care facilities (1979:100).

Various fears may be of concern for transferred patients. Transfer to the urban hospitals in all probability indicates the seriousness of the health problem. Patients may be frightened when faced with the prospect of transfer to urban

hospitals with all its implications of serious illness.

Along with fear associated with the meaning of being transferred comes the fear of going to unfamiliar places with unfamiliar people responsible for patient care and life. Hasselkus discusses Markus' concepts of relocation, in that relocation includes "first, the deprivation of familiar cues and environmental supports; and second, the need to cope with new sets of stimuli in an unfamiliar environment" (1978:632).

Transportation modes may also be of concern to transferred patients. If patients are to be transferred more than 100 miles, an air ambulance service, either fixed-wing or helicopter, is recommended (Hensler, et al., 1976; McCombs, 1978). Different modes of transportation used in transfers and the importance of verbal and written communication between the transferring hospitals and the receiving hospitals are well documented in the literature (Goodman, 1975; Hurlburt, 1975; Cowper-Smith, 1976; Hensler, et al., 1976; Shircore, 1976; Edlich, et al., 1978; Locke, 1978; McCombs, 1978; Nerland, 1978; Fanslow and Masset, 1979).

Volicer, in two studies with a total of 263 patients, identified some of the same concerns outlined above. Events associated with hospitalization that were considered as highly stressful



included "admission for life-threatening illness, inadequate insurance to cover hospitalization, admission for surgery, undiagnosed ailment at time of admission, and hospitalization at considerable distance from home" (Volicer, 1974:237). Other events considered low-stress events included "admission for diagnostic tests only, not having visitors, being cared for by unfamiliar physicians, and isolation from friends" (Volicer, 1974:237). Smith, in a study of 320 patients, found that transfer itself was not identified as a stressful event of hospitalization (1976:192).

#### Summary

From the review of the literature on patient needs, operationalized as patient concerns in this study, several areas of concern were identified and supported. How patients react to transfers from rural to urban health care institutions can be demonstrated by verbalization of these concerns.

#### Sick Role Behavior

Parsons' (1958) theory of sick role behavior provides another perspective for the conceptual framework of this study. The works of Parsons' and Wu's integration of the effects of illness on patient behavior provide the basis for the following discussion of sick role behavior.

Parsons defines illness as a "socially institutionalized role-type," disturbing the capacity of an individual for normally-expected task or role performance (1958:176). Illness is viewed as a crisis, something interrupting the normal flow of events. Illness causes changes in a person that make functioning at an optimal physical and psychological capacity impossible (Wu, 1973).

According to Parsons' description of sick role behavior, the patient "can not be 'held responsible' for the incapacity" (1958:176), but does have two obligations to fulfill. First, the patient has an obligation "to try to 'get well' and cooperate with others to this end. To be ill is inherently *undesirable* (1958:177). The patient has the obligation to *seek competent help* and to cooperate with competent agencies in their attempts to help him get well" (1958:177). In order to facilitate recovery, the patient in the sick role is exempt "to varying ways and for varying periods according to the nature of the illness, from his normal role and task obligations" (Parsons, 1958:176). Withdrawal from normal adult activities and concentration on getting well is expected. The patient is preoccupied with illness (Wu, 1973:160).

Regression occurs, and is characterized by egocentricity,

constriction of interests, dependency, and hypochondriasis, especially in those seriously or acutely ill (Wu, 1973:160). The patient, who now is exempt from adult responsibilities, is concerned with self and with what is happening within to the point of hypochondriasis. Outside interests are reduced because of egocentricity. Much energy is needed to deal with the illness, leaving little energy for other activities (Wu, 1973).

The patient becomes dependent upon others, partially because of the illness and partially because of the egocentricity and constriction of interests. Compliance and cooperation with the prescribed medical regime influence recovery (Wu, 1973).

As the illness becomes less severe and less demanding, the patient gradually resumes adult responsibilities with a broadened scope of interests. More energy for outside activities and thoughts is available (Wu, 1973:163).

No two people react to illness and hospitalization in the same manner. Perceptions an individual has regarding illness and hospitalization are influenced by a mixture of internal and external factors. Personal variables that influence sick role behavior include "personality, social status, occupation, education, age, and sex" (Wu, 1973:166). Other variables that influence sick role behavior are "the nature of the illness,

social role norms, interaction with relevant others, the hospital culture, and the medical care system" (Wu, 1973:1975). Today's medical care system encourages adoption of sick role behavior by the patient. Patient perceptions about hospitalization and treatment are influenced by perceptions and role expectations of care-givers (Wu, 1973; Orem, 1973). On the other hand, today's social role norms are changing with advances of the prosumer movement. With many people taking responsibility for their own health, sick role behavior may be influenced (Toffler, 1980).

#### Summary

Adopting sick role behavior is an expected activity for a person who is ill. The patient enters the health care system seeking help. In order to get well, cooperation with the medical team is necessary. To facilitate this cooperation, the patient is temporarily exempt from normally-expected, day-to-day activities and duties. Responsibility for illness is not the patient's, but, to regain health, the patient is to do what must be done to get well.

#### Chapter Summary

Montana is a rural state with a unique health care system consisting of a large rural area dependent upon urban organizations for specialized services. Scattered, limited services

create a common event in Montana's health care system: transferring patients from rural to urban hospitals. Patient reactions to rural-to-urban transfers may be influenced by patient concerns and/or sick role behavior, and may be elicited as patients enter the health care system at the rural health care institution, during the transfer process, or at the urban health care institution.

The purpose of this study was to determine how patients react to transfers from rural to urban health care institutions. Review of the literature and the conceptual framework set the parameters of the study. The focus of the study was on rural patients' movement from wellness to illness, incorporating the framework of patient concerns and sick role behavior.

## CHAPTER 3

### METHODOLOGY

The purpose of the study was to determine patient reactions to transfers from rural to urban health care institutions. In this chapter methodology of the study is presented.

#### Research Design

The study was an exploratory descriptive design addressing the question, "What are patient reactions to transfers from rural to urban health care institutions?" The study utilized a structured interview developed by the investigator. When little is known on a topic, personal interviews are powerful methods of securing information (Polit and Hungler, 1978:203). Interview data provide depth and quality with opportunities for verification (Kerlinger, 1973). Since interview schedules regarding patient reactions to rural-to-urban transfers were not available, one was developed addressing patient concerns and sick role behavior experienced by patients while in rural health care institutions, during the transfer process, and upon entry into urban health care institutions.

#### Setting and Sample

Montana is a rural state with only two urban areas,

Billings and Great Falls, providing specialized medical care for Eastern and South-Central Montana. Because of the investigator's interest, Billings Deaconess Hospital and St. Vincent's Hospital, located in Billings, were selected to represent the urban health care institutions. Both hospitals receive a large number of patients from surrounding rural counties (Research Services West, 1979). These hospitals house specialized units and equipment with medical and nursing specialists from many fields serving them.

The target population were patients who had been transferred from rural hospitals to these Billings' hospitals. Other criteria that had to be met for patients to be considered for participation in the study were in relation to age and place of residence. Participants selected for the study were between the ages of 18 and 80, alert, oriented, coherent, and representing a variety of medical diagnoses. Patients who were selected were from a rural area with a population of 2,500 or less with a functioning hospital. Patients of either sex, and any race, religion, occupation, or educational level were eligible for participation in the study.

#### Data Collection Instrument

A structured interview was developed by the investigator to elicit patient reactions to rural-to-urban transfers.

Questions related to the rural health care institution, the transfer process, and the urban health care institution.

Questions addressing demographic and background data, as well as reactions to rural-to-urban transfers in relation to patient concerns and sick role behavior were asked. Demographic questions elicited information regarding age, sex, marital status, occupation, town of residence, years at that residence, diagnosis, and rural and urban admission dates. Questions specifically addressing the rural health care institution, the transfer process, and the urban health care institution made up the major part of the interview. Appendix A contains the data collection instrument.

Validity of the data collection instrument was assessed through pilot interviews. The presumption was held that each participant had face validity as an informant (Brink and Wood, 1978:123) and that self-report would be truthful.

To assess the instrument's reliability, two questions addressing the same concept were presented differently by rewording the questions. With every interview, the same questions were asked in the same order in order to reduce investigator bias and "insure comparability of responses" (Polit and Hungler, 1978:326). Each participant was given



the opportunity to give additional information at the end of the interview.

#### Data Collection Method

Data for the study were collected between January 9, 1981 and February 4, 1981. Using the criteria outlined for the study, 110 patients were screened. Only 14 patients met the criteria and were interviewed. The remainder screened were either too ill to participate, were in Billings by self-referral or physician-referral, or did not meet the criteria of age.

Interviews were held in the patient's hospital room and required from 30 to 60 minutes for completion, with an average time of 30 minutes. Interviews were held 12 to 72 hours after the patient's admission to the urban health care institution. Verbatim recording of the data was done at the time of the interview by the investigator.

#### Pilot Study

A pilot study with a sample of four patients was first conducted to assess the adequacy of the interview and to identify problems that may be encountered or areas of inquiry which may have been overlooked. As a result of this pilot study, additional questions were added regarding occupation, marital status, and how patients planned to return home. Patient's

occupation and marital status were discussed by participants of the pilot study and indicated an influence on the patients' reactions to transfers. The question addressing the return-trip home was added as the investigator believed this may be an area of concern for transferred patients. Results of this pilot study with these four patients are included in the overall findings of the study because patients spontaneously provided the investigator with this information.

#### Human Rights

Provisions were made in the study for protection of the participants' human rights. The human rights committees of Montana State University School of Nursing, Billings Extended Campus, Billings Deaconess Hospital, and St. Vincent's Hospital reviewed the study and granted approval for conducting it. Copies of the letters of approval are found in Appendix B. Signed consent for participation in the study was received from each participant. A copy of the consent form is in Appendix C.

Each patient's capability to participate in the study was assessed by the hospital unit's head nurse and the investigator. Each participant received verbal and written explanation of the study and assurance of anonymity and confidentiality.

### Data Analysis

Upon completion of the data collection, data were summarized, categorized and tabulated. Pertinent demographic data were cross-tabulated with the general findings. Data are presented in tables using numerical frequencies and in narrative form in the following chapter.

## CHAPTER 4 .

### FINDINGS AND DISCUSSION

The study was an exploratory descriptive survey of 14 patients' reactions to transfers from rural to urban health care institutions relative to concerns and sick role behavior. Data was gathered by an interview developed by the investigator. The results were analyzed with the findings and discussion presented in this chapter.

#### Screening Data

One hundred and ten persons with rural addresses hospitalized in two Billings hospitals were identified by the investigator. Of these 110, only 14 had been transferred from rural hospitals. The great majority (n=85) were self-referred or physician-referred with subsequent hospital admission for diagnostic procedures, tests, and surgery. The remainder (n=11) were either too ill to participate or did not meet the age criterion.

#### Demographic Data

The data reported were collected from these 14 transferred patients. These participants included a representation of males (n=8) and females (n=6), who were either employed (n=7) or retired (n=7). All were alert, oriented, and co-

herent. The majority (n=11) were 43 years of age or older. Six participants lived 200 or more miles from Billings; the remaining eight lived from 53 to 100 miles from Billings. The majority (n=10) were married. Eight participants had lived at their present rural residence 32 years or more; the remaining six had maintained their present rural residency for seven years or less.

Participants had diagnoses of either serious illness (n=9) or less serious illness (n=5). Determination of serious and less serious diagnoses was based upon reasons for transfer and length of time before transfer from the rural hospital. For example, the participant who suffered a head injury and multiple fractures was defined as having a serious diagnosis. Rural-to-urban transfer was instituted for this patient immediately after stabilization due to the need for the specialized care of a neurologist, orthopedic surgeon, and intensive care monitoring. Another participant who had onesided paresthesia was defined as having a less serious diagnosis. This patient's transfer took place after seven days of rural hospitalization. The diagnostic procedures and sophisticated testing necessary to determine the cause of the paresthesia was only available in urban hospital settings.

The majority of participants (n=9) had spent less than two days in the rural hospital before transfer; spent five or less days in the urban hospital before being interviewed; and had seven or more total sick days. Table 3 presents the specific demographic data on all 14 participants.

#### Background Data

Background data were gathered in relation to the rural health care institution and the transfer process to facilitate participant-investigator rapport and gain background information regarding the basis for the rural-to-urban transfer as perceived by the participants. Appendix A contains the format of the interview.

#### Rural Health Care Institution

Background data regarding problems that brought participants to rural hospitals and means of getting there were addressed. The great majority of the participants (n=12) described the problem that led to rural hospital admission with symptomology, for example, "I was coughing up a lot of blood." Others used common diagnostic terms, such as "I had a heart attack." Participants were brought to rural hospitals either by a car driven by the participant's spouse, a relative, or themselves (n=10) or by local ambulance (n=4).

Table 3. Demographic Data of Patients Transferred from Rural to Urban Health Care Institutions (N=14).

Sex	Age	Marital status	Working status	Diagnosis
M <sup>a</sup>	19	S <sup>b</sup>	Employed	SI <sup>c</sup>
F	76	W	Retired	LSI
M	47	S	Employed	SI
M	72	M	Retired	SI
M	32	M	Employed	SI
F	61	M	Employed	SI
F	62	M	Retired	SI
F	71	W	Retired	SI
F	65	M	Retired	LSI
M	43	M	Employed	LSI
M	35	M	Employed	LSI
M	55	M	Employed	SI
F	81	W	Retired	LSI
M	66	M	Retired	SI

<sup>a</sup>M=male; F=female; <sup>b</sup>S=single; W=widowed; M=married; <sup>c</sup>SI=serious illness, LSI=less serious illness.

Rural residency	Miles transferred	Rural stay <sup>a</sup>	Urban stay <sup>b</sup>	Sick days <sup>c</sup>
7 Years	60 Miles	0 Days	8 Days	8 Days
3½	81	0	4	4
43	93	0	21	21
72	81	0	2	2
32	340	7	1	8
40	53	7	10	17
4	100	1	1	2
40	308	1	1	2
45	209	8	7	15
43	306	2	1	3
3	210	10	5	15
1½	283	2	5	7
3½	81	7	2	9
65	60	1	9	10
Means-28.8 Years	162.4 Miles	3.3 Days	5.5 Days	8.8 Days

<sup>a</sup>Rural stay=days at rural hospital before transfer; <sup>b</sup>Urban stay=days at urban hospital before interview; <sup>c</sup>Sick days=total sick days.

### The Transfer Process

Several reasons for the transfers, as perceived by the participants, were reported. The need to be under the care of a specialist was reported the most frequently (n=5). For example, one participant stated, "I needed to get to my heart doctor." Other reasons for the transfers included the need to get a better equipped facility (n=4), the need for the performance of special tests in order to determine "the root of the problem" (n=3), and the perception that the precariousness of the participant's physical condition necessitated the transfer (n=2). For example, in response to the question, "Why were you transferred?" one participant responded, "They were worried about hemorrhaging on the brain."

Various modes of transportation were used in the transfer process, with combinations of different modes used in some transfers. Local rural ambulance services were reported as being used the most in rural-to-urban transfers (n=5). Other modes utilized included local air ambulance services (n=3), cars (n=2), and Billings' helicopters and air ambulances (n=2). Combinations of different modes included a Billings air ambulance with a helicopter and a local ambulance with a Billings Advanced Cardiac Life Support (A.C.L.S.) ambulance,



which were utilized after one participant refused to get in a Billings helicopter.

#### Patient Reactions to Rural-to-Urban Transfers

Patient reactions to transfers from rural to urban hospitals are presented in relation to the rural health care institution, the transfer process, and the urban health care institution. Participants' reactions to each of these are presented in the following pages.

#### Patient Reactions Relative to the Rural Health Care Institution

The rural health care institution was addressed as one area of influence on patient reactions to rural-to-urban transfers. Questions were asked to elicit reactions in relation to patient concerns and sick role behavior.

The majority of the participants (n=12) remembered their entry to the rural health care institution and clearly recalled the events that followed. Responses included the following, "They put me on the emergency room table, started an I.V., gave me oxygen, and wheeled me in for X-rays." One participant had vague remembrance of the circumstances surrounding the entrance to the rural hospital. No doubt this was due to the severe myocardial infarction the participant was experiencing. Another could not remember anything about the rural hospital.

even though "I guess I was telling people my name, my allergies, and who to call."

Twelve participants knew at least one person, nurse or physician, who cared for them initially in the rural hospital, with 9 indicating they knew "everyone" (nurses, physicians, aides, and ambulances attendants). As one participant stated, "In a small town, everyone knows everybody."

Most participants (n=10) reported not having any concerns entering the rural hospital. Others reported concerns in relation to pain, diagnosis, where to go for specialized care, and negative feelings toward the rural hospital due to problems encountered with previous admissions. One participant said, "I just wanted relief from the pain." Another asked, "What's the matter with me?" While another stated, "I didn't know where to go (for specialized care)." These concerns were handled by nurses, relatives, or were left unanswered.

#### Summary

On entering the rural hospital, most participants reported not having any concerns. They remembered their entry to the rural hospital and were able to describe the events that followed. The participants, in general, knew at least one person who cared for them initially in the rural hospital.

Patient Reactions Relative to the Transfer Process

The transfer process was addressed as another area of influence on patient reactions to rural-to-urban transfers. Again, questions were asked to elicit reactions in relation to patient concerns and sick role behavior.

Various reactions were elicited from the participants when they were told that they were being transferred. Half of the participants believed the transfer was necessary and were willing to go. As one participant stated, "I wanted to figure out what was wrong with me." The other half had mixed reactions. Several didn't want to be transferred, but wanted either to stay in the rural hospital or go to another urban hospital other than those in Billings. One participant wanted to be transferred to Great Falls as family members lived there.

Only two participants were frightened when told about being transferred. One stated, "It scared the hell out of me. I just knew I was going to kick the bucket." Another said, "I didn't know it was that serious." Another participant reported not being told about the transfer, but that knowledge of being transferred to Billings was gained when "I heard the (ambulance) siren going." Patient reactions to

being told about the transfer to the urban hospital are presented in Table 4.

Table 4. Patient Reactions to Being Told About the Rural-to-Urban Transfer.

Patient reactions	Number of responses
Seen as a necessary action	7
Stated did not want to go	3
Were surprised/scared	2
Not told/did not remember	2

The majority of participants (n=9) reported not having any concerns upon being told that the transfer was scheduled. Concerns reported were in regard to costs of the transfer and specialized care, the estimated length of time that would be spent in the urban hospital, and whether surgery would be required. One participant reported, "I told them I wanted to go to Great Falls, but they didn't listen to me." For the participant who voiced them, physicians discussed the concerns of surgery and length of stay. It was reported that no one discussed costs or the decision on where to be transferred with the participants who voiced these concerns.

Being involved in a transfer previous to this particular one was reported by eight participants. Those who had not been

involved in previous transfers did not voice any concern regarding that inexperience.

Nurses were identified by six participants as persons responsible for their care before being transferred. Physicians were seen as responsible for five of the transfers. "My husband" and the participant were also identified. Persons perceived as responsible for patient care prior to transfer are presented in Table 5.

Table 5. Person Perceived as Responsible for Patient Care Prior to Transfer.

Care-giver identified	Number of responses
Nurse	6
Physician	5
Spouse or other family member	2
Did not remember	1

Preparation for transfer was seen by most participants in regards to physical care (n=5) and specific treatments (n=7). This preparation included administration of medications and intravenous fluids, explanations, and getting the participants dressed appropriately for transfer. Nurses were perceived as the ones doing patient care by four of the participants. Other identified as being involved in patient preparation included physicians

(n=3), emergency medical technicians (E.M.T.) (n=2), family members (n=2), and the participant.

In describing the trip from the rural hospital to the urban hospital, most participants responded by describing the physical environment (n=12). The trip was "smooth," over "rough roads," and "like any other airplane ride." As mentioned previously, all modes of transportation, ground, fixed-wing, and helicopter, were utilized.

Nurses and E.M.T.'s were identified as the main persons responsible for patient care during the transfer (n=8). Other listed as responsible included relatives and the participant. In one case, the care was shared by a nurse and an E.M.T. Persons perceived as responsible for patient care during the transfer are presented in Table 6.

Table 6. Person Perceived as Responsible for Patient Care During the Transfer.

Care-giver identified	Number of responses
Nurse	4
E.M.T.	4
Relative	3
Did not remember	2
Participant	1

The general reaction of the participants towards the transfer process was positive. As one participant stated, "Everything was handled very well." Eight participants had no concerns about the transfer process. Concerns reported were in regard to who was driving the ambulance, the additional cost of the transfer, the weather conditions, and "What's happening to me?"

#### Summary

Various reactions to being told about the impending transfer were reported with half of the participants believing the transfer was necessary in order to get well. The other half reported not wanting to be transferred, being scared, and not being told. The majority of the participants did not have any additional concerns after being told that the transfer was scheduled.

Most participants did not have any concerns regarding the transfer process. Nurses were identified as major care-givers prior to the transfer and in preparation for the transfer, with nurses and E.M.T.'s sharing patient care during the transfer. In general, reaction to the transfer process was positive.

#### Patient Reactions Relative to the Urban Health Care Institution

Urban health care institutions were the third area addressed in the study with questions focusing on eliciting reactions in relation to patient concerns and sick role behavior. All of

the participants entered the urban health care institution as "direct admits," bypassing the emergency ward and being taken directly to the proper medical unit for admission. On admission to the medical unit, participants were oriented by nurses (n=7), physicians (n=5), relatives (n=1), or not oriented at all (n=2).

Varied reactions to admission to the urban hospital were reported. Half of the participants were "happy to be in a place where I can get help and get better." They expressed that they were finally getting to the hospital where they could concentrate on getting well. Others had various responses. Two participants were "so sick, it didn't matter" where they were. Two others were concerned about themselves with one stating, "All I was concerned about was me." Another responded with, "I knew it was a strange environment." Patient reactions upon entering the urban health care institution are presented in Table 7.

Most participants (n=10) did not have any concerns on entering the urban hospital. Of the concerns expressed by others, those of 3 participants were in regard to their physical conditions and were addressed by their urban physicians. For example, one participant asked, "What's going to happen to



Table 7. Patient Reactions Upon Entering the Urban Health Care Institution.

Reaction	Number of responses
Happy to be at urban hospital	7
Did not matter where they were	2
Self-concern	2
Physical environment strange	1
Physical environment/did not matter	1
Surprised to be at urban hospital	1

me?" Concerns expressed by the participants on entering the urban hospital and who handled these concerns are presented in Table 8.

Table 8. Concerns Expressed on Entering Urban Hospital and Who Handled Them.

Concerns/handled by	Number of responses
None	10
Physical condition/physician	3
Physical condition/relative	1

The majority of the participants (n=10) had never previously been patients in the urban health care institution. None of the participants knew any of the people who cared for them in the urban hospital. Neither of these factors elicited any

concern from the participants.

After their admission to the urban hospital, five participants were concerned about their physical condition and/or diagnosis and what had to be done "to remedy it." Physicians addressed these concerns. Other concerns were expressed and are presented in Table 9.

Table 9. Concerns Expressed After Admission to the Urban Hospital and Who Handled Them.

Concerns/handled by	Number of responses
Physical condition/physician	5
None	4
Length of stay/physician	2
Costs/nurse	1
Job and family/nurse	1
Loneliness/left unanswered	1

Half of the participants had no further concerns to share at the end of the interview. Concerns expressed by the other half included the statements of "The roads sure were rough.", "It's too bad I have to come all this way for tests.", and "I'm sure thankful I have insurance.". Concerns expressed at the end of the interview regarding the rural-to-urban transfer are presented in Table 10.

Table 10. Further Concerns Expressed Regarding the Rural-to-Urban Transfer.

Concerns	Number of responses
None	7
Physical condition	2
Road conditions	2
Distance to medical care	1
Family separation	1
Distance to medical care/costs	1

None of the participants had any concerns regarding their return trip home. Thirteen participants expected to return home by car driven by a family member. One expected to return home by airplane.

#### Summary

On entering the urban hospital, all participants were admitted directly to a medical unit. The main reaction to the urban admission was a feeling that now they could "get down to the business of getting well." They did not have any concerns on entering the urban hospital, even though most of them had never been patients there before and none of them knew any of the people who were caring for them.

The most frequent concern reported by the participants

after admission to the urban hospital was in regards to their physical condition. They wanted to know what was wrong and how it could be remedied. None of the participants had any concerns regarding their return-trip home.

The participants identified nurses as the main people responsible for their orientation to their surroundings and to what was happening to them on admission to the urban hospital. Physicians were identified as the people who handled their concerns regarding physical condition, diagnosis, and treatment.

#### Data Relevant to Demographic Data and General Findings

The pertinent findings in relation to the tabulation of demographic data with general findings of the study were in regard to distance transferred and diagnosis. Eight participants were transferred less than 100 miles in order to arrive at the urban hospital and were transported mainly by local ground ambulance services. Others were transported by car, helicopter, and the combination of a local ambulance with a Billings A.C.L.S. ambulance. Emergency medical technicians were reported as the persons responsible for care of half (n=7) of the participants during these transfers. Others reported as being responsible for patient care

included nurses and family members.

Six participants were transferred more than 200 miles in order to arrive at the urban hospital and were transported by both rural and urban air ambulance service, in five of the six transfers. Nurses were identified as the persons responsible for the care of half of the participants during these long-distance transfers. Of the six who were transferred more than 200 miles, three were transferred more than 300 miles by local or Billings air ambulances and relatives were identified as the persons responsible for patient care in two of the three transfers.

Participants who were defined as being seriously ill expressed less concerns than those defined as being less seriously ill. Less seriously ill participants expressed concerns regarding costs, length of stay, the possibility of surgery, loneliness, family separation, and distance to medical care. Many of these are the same concerns identified by Volicer (1973; 1974) in her studies of stressful events of hospitalization.

Seriously ill participants did not voice concerns until after the eighth day of urban hospitalization. From one to eight days after their urban admission, their main concern was

their physical condition. Then, after the eighth day, concerns regarding family separation, costs, length of stay at the urban hospital, and distance to medical care were expressed.

#### Summary

Pertinent findings in relation to the tabulation of demographic data with general findings of the study were in regard to distance transferred and diagnosis. Differences in the modes of transportation and medical personnel used during transfer were identified according to distance transferred.

Less seriously ill participants recalled having concerns shortly after urban admission. Similar concerns were voiced by seriously ill participants after the eighth day of urban hospitalization.

#### Chapter Summary and Discussion

The purpose of the study was to determine patient reactions to transfers from rural to urban health care institutions. Data were presented in four sections: screening data, demographic data, background data, and patient reactions to rural-to-urban transfers in relation to the rural health care institution, the transfer process, and the urban health care institution.

One hundred and ten patients were screened for the study with only 14 meeting the study's criteria. The majority of those screened had come to the urban hospital by self-referral or physician-referral. In general, participants did not have any concerns in regard to the rural health care institution. These findings suggest that this lack of concern was due to the participants' perception of the serious or emergency nature of their problems. Because of this perception, participants saw a need to go to the rural hospital for care. Lack of concerns also may have been due to being cared for by familiar people, thus, facilitating fulfillment of the sick role obligations of seeking help and cooperating, as described by Parsons (1958).

The participants did not have any concerns in regard to the transfer process. It is reasonable to assume from these findings that sick role behavior was being demonstrated. Participants were cooperating with the prescribed medical regime, which included being transferred, in order to get well. Families of the participants also indicated sick role behavior with their cooperation with the decision for transfer. Once the participants had adopted the sick role, interests were restricted and egocentricism developed. Preoccupation with illness reduced interests to self and away from outside

activities. Transfers from rural to urban hospitals were seen as necessary actions in the participants' plight to get well.

Nurses were frequently identified as the persons responsible for patient care before the transfer and for preparing patients for transfer. Patient care during most transfers was the responsibility of nurses or emergency medical technicians.

On admission to the urban hospital, all of the participants were taken directly to a medical unit. The participants believed that once they were at the urban hospital the process of getting well could begin. Their main concern was their physical condition or diagnosis and treatment. None were concerned about their return trip home.

These findings indicate continuation of sick role behavior into the urban health care institution. Regression continued and the hypochondriasis Wu (1973) described became evident in the egocentricity expressed by the participants. Most energy was concentrated on illness and its remedy.

Lack of concern expressed on admission to the urban hospital may have been due to the participants' belief that they were in competent hands. Also, the participants' previous experience with hospitalization may have made surroundings and people less strange and more predictable. For those who had never been hospitalized previously, experience drawn from



hospital visits, television programs, or movies may have added to their perceptions (Wu, 1973).

Nurses were identified as the persons responsible for orienting participants during their admission. Physicians were recognized as the person who handled their concern regarding diagnosis and treatment.

Differences in modes of transportation and who gave patient care during transfer were noted in relation to distances transferred. Overall, local services were utilized in most transfers with nurses and E.M.T.'s in attendance of the patient.

Concerns reported were voiced by less seriously ill participants. Seriously ill participants did not voice concerns until after the eighth day of urban hospitalization, and they then had many of the same concerns as voiced by the less seriously ill.

These findings support Wu's (1973) report that as illness becomes less severe and less demanding, patients gradually resume adult responsibilities and their scope of interest broadens. More energy is available for outside thoughts and activities, which could be interpreted as concerns for costs, length of stay, and the other concerns reported by the participants.

## CHAPTER 5

### CONCLUSIONS

The purpose of the study was to determine patient reactions to transfers from rural to urban health care institutions. Conclusions that were derived from the study are presented in this chapter along with nursing implications, recommendations for further study, and limitations of the study.

#### Conclusions

Montana is a rural state. Specialized medical care east of the Rocky Mountains is located in two cities. Of the 110 patients screened for this study, the great majority came to urban hospitals by self-referral or physician-referral. A small number (N=14) came on a more emergency basis, transferred directly from rural hospitals to urban centers because of their need for immediate or specialized care. The large number of referrals may indicate an adaptation to Montana's unique health care system.

In the study, patients transferred from rural hospitals to Billings' hospitals demonstrated sick role behavior as a reaction to being transferred. They demonstrated cooperation with health care professionals, withdrawal from adult

responsibilities, and egocentricism. Sick role behavior began with entry to the rural hospital where medical help was first sought. It continued on through the transfer process and into the urban health care institutions. Cooperation with professionals, an aspect of sick role behavior, included acceptance of transfer. Withdrawal from adult responsibilities was indicated when no concerns were voiced in regard to the rural health care institution and transfer process. Upon entering the urban hospital, patient egocentricism was demonstrated. Interests were restricted to diagnosis and treatment. During the entire process of transfer, patients depended on nurses and others for care and explanations. Very little concern was expressed regarding the participants' families.

Findings from the study support Parsons' (1958) theory of sick role behavior. These rural patients demonstrated sick role behavior beginning with the entry into a rural hospital, during the transfer process, and continuing into the early days of urban hospitalization. After this period, the rural patient began to move out of the sick role. The patients in the study were in agreement with Smith's (1976) finding that transfer between health care settings is not perceived as a stressful event.

When illness became less demanding or with less serious illness, these rural patients tended to demonstrate less sick role behavior. Adult responsibilities were resumed and concerns were expressed. At this point the rural patients begin to express concerns related to their illness and associated factors. Concerns regarding costs, length of stay, distance to medical care, family separation, the possibility of surgery, and loneliness were expressed by the less seriously ill patients. After the eighth day of urban hospitalization, the seriously ill patients verbalized many of the same concerns. Several of these concerns, costs, distance, family separation, and surgery, have also been identified by Volicer (1973;1974) in studies of stressful events associated with hospitalization with patients in an Eastern health care setting.

Wu's (1973) theory of patient needs, operationalized to patient concerns for costs, family separation, fear of the unknown, and modes of transportation, were verbalized by the study's participants. Due to the smallness of the sample, the significance of patient concerns related to patient reactions in rural-to-urban transfers can not be determined. A relationship between patients concerns and diagnosis is indicated. Less seriously ill patients

expressed concerns shortly after urban hospitalization. Seriously ill patients did not express concerns until after the eighth day of urban hospitalization.

#### Nursing Implications

Nurses were frequently identified as major care-givers to patients experiencing transfer from rural to urban hospitals. Nurses cared for patients in the rural hospital, were involved in patient preparation for transfer, cared for patients during transfer, and oriented patients upon entering the urban hospitals. They continued to be the major care-givers in the urban health care setting.

Rural and urban nurses appear to be in positions to influence the behavior of transferred patients. Nurses in rural settings need to promote communication between hospitals and coordination of patient care. Nurses in urban settings need to recognize the loss of family support with transferred patients. These patients are used to being in familiar settings and may not know anyone in the urban setting, a situation disturbing to many patients. Initiation of orientation programs and surrogate support system organizations for rural patients in urban health care settings may help.

Nurses in both settings must be aware of the influence

of sick role behavior on patient reactions to rural-to-urban transfers. Perceptions of illness are not only influenced by patients' beliefs, but also by perceptions of those who administer patient care (Wu, 1973). Knowing this, nurses must be aware of patient behavior demonstrated in rural-to-urban transfers. It is necessary to note both the dependent sick role behavior and the eventual emergence from egocentricism to awareness and expression of concerns. By acknowledging these as normal reactions to both patients and their families, nurses will aid patients in coping better with their illness and movement towards recovery. Recognition of these factors will aid nurses in their assessment of patient readiness for teaching and discharge planning.

Even though a majority of the participants identified nurses as major care-givers in the rural and urban settings, emergency medical technicians (E.M.T.) were also identified as being responsible for care of patients during transfers of less than 100 miles. Further it was found that relatives were often identified as being responsible for patient care when transfers were more than 300 miles. It is probably appropriate for E.M.T.'s to be in charge of patient care during transfer, but delegating care of patients during

transfer to relatives is not appropriate. Nurses, or E.M.T.'s, should be utilized in these transfers as relatives are emotionally involved with the patient and not trained for such responsibility. The quality of care given during transfer was not addressed in this study.

#### Limitations

The time criterion proved to be very limiting. Several patients were too ill to be interviewed within 72 hours of their admission to urban hospital and were lost from the study. However, whenever possible, these patients were interviewed at a later date. This may have effected the results since participants utilized recall to provide the data for the study. Interviews were conducted up to 21 days after urban admission.

Interviews are considered an appropriate means for data collection in an exploratory descriptive design. Limitations of the interview for this study included the following: the great majority of questions focused on patient concerns; provisions for follow-up questions were not provided in the interview; schedule; and the consent form was too long for many of the participants to read and had to be read by the investigator.

Extensive tests of reliability and validity were not

conducted on the interview tool. In this type of study using patients as informants, reliability of the instrument varies greatly with mood, physical condition, or environmental factors surrounding patients (Brink and Wood, 1978; Polit and Hungler, 1978). Even though controls for these variables were provided, they were not completely controlled and may have influenced the results of the study.

#### Recommendations for Further Study

Due to the small sample size, results of the study can not be generalized. Replication of the study is recommended using a larger sample. The present interview survey tool requires further refinement and validation prior to further use. To broaden the focus of the study, a comparison of reactions to transfer or transport of those who were physician-referred, self-referred, and transferred from rural hospitals should be undertaken.

In this study, patients who regained consciousness after urban admission were oriented by relatives or not oriented at all. Investigation of how comatose patients are oriented is another area to be investigated.

Investigating reactions of families of patients who were transferred is another important area for further study.



Spouses and significant others are so involved in rural-to-urban transfers that their reactions need to be addressed. Reactions of nurses to rural-to-urban transfers is another area for further study. The investigator noted different reactions from rural and urban nurses involved in patient transfers, including relief, disinterest, and concern. Another area for further investigation may be the examination of the facilitation of sick role behavior by family and health care professionals, including nurses. Also, where do concerns originate, from the patient, family, or health care professionals?

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APPENDIX A



Patient Reactions to Transfers from Rural to Urban Health Care  
Institutions

Patient Interview Guide (Case # \_\_\_\_\_)

Sex \_\_\_\_\_ (Optional) Occupation \_\_\_\_\_ (Optional)

Age \_\_\_\_\_ (Optional) Marital Status \_\_\_\_\_ (Optional)

Town of Residence \_\_\_\_\_

Length of time at that residence \_\_\_\_\_

Diagnosis \_\_\_\_\_

Admission Date (Rural) \_\_\_\_\_

(Urban) \_\_\_\_\_

Today's Date \_\_\_\_\_

A. Introduction

1. Purpose
2. Rights
  - a. 30-60 minute interview
  - b. No special risks/benefits
  - c. Voluntary participation
  - d. Confidentiality/anonymity
  - e. Volunteer to be interviewed?
    - i. Sign consent
    - ii. Copy with participant

B. Rural Health Care Institution

1. What problem brought you to the \_\_\_\_\_ Hospital?
2. Who brought you to the \_\_\_\_\_ Hospital?
3. What do you remember about entering that Hospital?
4. Did you know any of the people who cared for you?
5. Did you have any questions or concerns on entering that Hospital? How were they handled and by whom?
6. What was your reaction when you were told you were being transferred?
7. Did you have any other questions or concerns after you were told about the transfer? How were they handled and by whom?

## C. The Transfer

1. Why were you transferred?
2. How were you transferred?
3. Who was responsible for your care before the transfer?
4. How were you prepared for the transfer and by whom?
5. Describe your trip here.
6. Who was responsible for your care during your transfer?
7. How were things handled in the transfer process?
8. What was your impression of the transfer process?
9. Did you have any questions or concerns about your transfer? How were these handled?
10. Have you been involved in an ambulance transfer before?

## D. Urban Health Care Institution

1. Describe your entry into this Hospital. What do you remember about entering this Hospital? When did you first realize you were here and who oriented you to what did happen/was happening?
2. What was your initial reaction on entering this Hospital (or when you first realized you were here)?
3. Did you have any questions or concerns on entering this Hospital? How were they handled and by whom?
4. Have you been a patient in this Hospital before?
5. Did you know any of the people who cared for you?
6. Did you have any additional concerns or questions after you were admitted? How were they handled and by whom?
7. How will you return to your home?
8. Are there any other things about your transfer I haven't asked about that you would like to discuss?

APPENDIX B

Approval Letter from MSU School of Nursing - Billings Extended Campus

MSU

SCHOOL OF NURSING

BILLINGS EXTENDED CAMPUS EMC CAMPUS BOX 574 BILLINGS, MONTANA 59101

Judy Schmidt, R.N., Graduate Student  
School of Nursing  
Montana State University

Dear Ms. Schmidt:

Your research proposal, "Patient Reactions to Transfers from Rural to Urban Settings", was reviewed and approved for protection of human subjects on November 12, 1980. All consent forms will be secured and held in a locked file in this office for three years. Best wishes for a successful study.

Sincerely,



Ruth Vanderhorst, R.N., M.S.  
Education Director

RV/dk

Saint  
Vincent  
Hospital

Approval letter from St. Vincent's Hospital  
1233 North 30th Street  
P. O. Box 2505  
Billings, Montana 59103  
406-657-7000

December 11, 1980

Judy Schmidt, R.N.  
Post Office Box 654  
Roundup, Montana 59072

Dear Judy:

The Research Review Committee has approved your research "Patient Reactions to Transfers from Rural to Urban Health Care Institutions".

As discussed per phone, your research will occur between mid January and extend into February as needed. Also, the Head Nurse meeting will be scheduled for December 19, 1980 at 0930 enabling you to share your research project and goals.

We are looking forward to participating in this study.

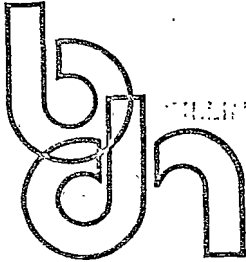
Sincerely,

*Lorraine Reinhardt RN*

Lorraine Reinhardt, R.N.  
Assistant Director of Nursing Service

LR/jb

## Approval Letter from Billings Deaconess Hospital



BILLINGS DEACONESS HOSPITAL

December 26, 1980

Judy D. Schmidt, RN  
P.O. Box 654  
Roundup, Montana 59073

Dear Judy:

After committee review and your consideration of our suggestion, the Research Committee of Billings Deaconess Hospital grants permission to conduct data collection for your study at Deaconess. The unit supervisors have a copy of the abstract and enclosed you will find a list of key people for each nursing unit. It would be helpful to present a copy of this letter to the unit staff prior to interviewing any patient.

We will be looking forward to receiving the results of your study and utilizing the material to improve our services to patients and their families.

Sincerely,

A handwritten signature in cursive script that reads "Sue T. Cable". There is a small mark below the signature that looks like "22".

Sue T. Cable, RN  
Chairperson, Research Committee

STC:ch

enc

APPENDIX C

Consent to Act as a Participant  
in the study entitled:

Patient Reactions to Transfers  
from Rural to Urban Health Care Institutions

The purpose of the study, as explained to me by Judy Schmidt, a registered nurse in the graduate program at the Montana State University School of Nursing, is to explore the patient's needs in a rural-to-urban transfer.

To participate in the study, I will take part in an interview asking questions about my reactions to my transfer from a rural to an urban health care institution. The interview will require about 30 to 60 minutes of my time. I will participate in the study at my convenience. I have the right to stop the interview at any time because of fatigue, treatments, or nursing care and continue on when I choose. I can withdraw from the study at any time. My decision to participate, not to participate, or my decision to withdraw from the study will be kept confidential and will not influence my care and treatment. My replies will be kept confidential and all information will be coded to protect my anonymity. The information I give will be destroyed after the data is analyzed and tabulated, and the results of the study will be shared with other nurses



through publication.

There will be no benefit to me personally from participating in the study, but the information gained from the study may help nurses provide better patient care in the future. There will be little or no risk in participating in the study.

I, therefore, agree to participate in the study "Patient Reactions to Transfers from Rural to Urban Health Care Institutions." If I have any questions regarding this study, I may contact Judy Schmidt by calling (406)-323-1758 collect.

Signature \_\_\_\_\_

Date \_\_\_\_\_

