



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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Date

May 29, 1981

PATIENT REACTIONS TO TRANSFERS FROM RURAL TO
URBAN HEALTH CARE INSTITUTIONS

BY

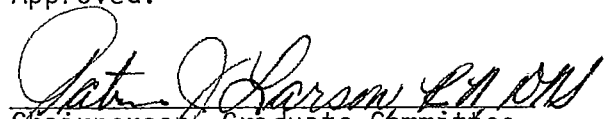
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ABSTRACT

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.

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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.

