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**IS DISORIENTATION IN THE ELDERLY ASSOCIATED WITH THE  
TRANSFER FROM AN ACUTE HOSPITAL TO A LONG TERM CARE FACILITY ?**

by

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B.S., University of Cincinnati, Cincinnati 1955  
M.S., University of California, San Francisco 1979**

**THESIS**

Submitted in partial satisfaction of the requirements for the degree of

**MASTER OF SCIENCE**

in

**NURSING**

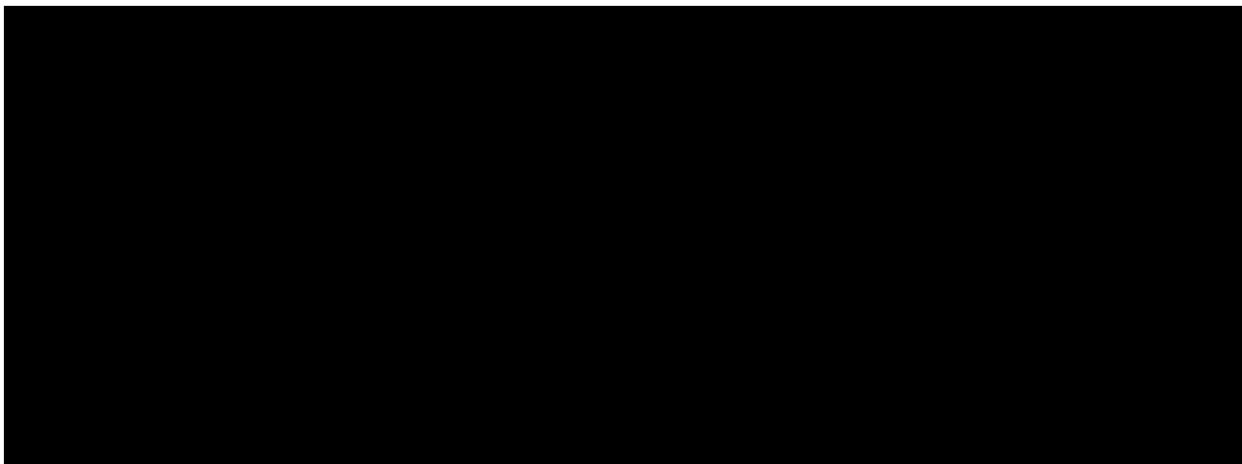
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San Francisco



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This thesis is dedicated to those nineteen elderly persons who allowed me to come into their lives at the critical time of relocation. Each of them has made some contribution to my consciousness and I hope I made some to theirs.

"Nothing has such power to broaden  
the mind as the ability to investigate  
systematically and truly all that comes  
under thy observation in life."

Marcus Aurelius Antonius

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My dear husband Phil has been most patient through Graduate School and has supported me both financially and emotionally -- almost all of the time. My maturing sons, John and Chris, were forced to learn about dishes, vacuuming and other mundane tasks, besides their own schooling and their first love, surfing.

Finally, I shall always remember with love, Zina Mirsky, my advisor in Graduate School and a member of the committee, another warm wonderful human who, like the nurses above, gives me hope for the future of the nursing profession.

Thank you to you all.

Robyn Paulson

## Table of Contents

		page
Chapter		
I	Introduction and Overview . . . . .	1
	Purpose and Problem Statement . . . . .	1
	Review of Literature . . . . .	4
II	Conceptual Framework . . . . .	13
	A Model of Healthy Aging . . . . .	13
	Illness and Hospitalization . . . . .	14
	Anticipating Institutionalization . . . . .	16
	Adaptation Behavior and Energy . . . . .	18
III	Methodology . . . . .	22
	Design and Hypotheses . . . . .	22
	Definitions - Setting . . . . .	23
	Sample . . . . .	24
	Tools . . . . .	25
	Analysis of Data . . . . .	27
IV	Findings . . . . .	29
	Sample Characteristics . . . . .	29
	By Hypotheses . . . . .	31
	Choice and Predictability . . . . .	39
V	Discussion, Implications and Conclusions for Nursing Service and Research . . . . .	46
	Discussion . . . . .	46
	Choice Control . . . . .	46
	The MSQ As An Assessment Tool . . . . .	49
	Conclusions . . . . .	53
	Further Research . . . . .	54
	Summary . . . . .	55
References	. . . . .	57
Appendix		
	1 Mental Status Questionnaire . . . . .	61
	2 Relative Frequencies of MSQ Scores -- Each Testing Time . . . . .	62
	3 Consent Form . . . . .	63

## List of Figures

Figure		page
1	A Model of Healthy Aging . . . . .	13
2	Healthy Aging and After Transfer . . . . .	20

## List of Tables

Table		
1	Wilcoxon Matched-Pairs Signed-Ranks Test By Level and By Raw Score . . . . .	31
2	Chi Square Analysis of Level of Orientation Day Before Transfer and Day After Transfer .	32
3	Individual Raw Scores -- Day Before and Day After Transfer . . . . .	33
4	MSQ Score at Each Testing -- Mean, Median, Mode . . . . .	34
5	Chi Square Analysis of Frequencies and MSQ Score by Level . . . . .	37
6	Crosstabulation of Demographic Variables with MSQ At All Testings -- Using Chi Square Analysis . . . . .	38

## CHAPTER I

### INTRODUCTION AND OVERVIEW

The purpose of this thesis is to determine if there is a relationship between disorientation in the elderly and relocation from an acute hospital to a long term care facility. This study is an attempt to more clearly define the scope and depth of what has come to be known as 'transplantation shock' (Mullen, 1977). Movement to a long term care facility is a common occurrence for many elderly. Nurses are the key health care personnel responsible for effecting the transfer of the elderly to long term care facilities. Nursing interventions, then, may be of critical importance in providing a supportive environment during this time of transition. Nurses who plan the care of the elderly in the acute hospital start by providing the emotional and physical support needed by the client if the move to long term care is to be without detrimental effects. If nurses know the more common negative effects of relocation, and the timing of these effects, they can use this information in planning and implementing their care.

Disorientation in the elderly has been described as multidimensional and multicausal (Butler, 1975). Butler described disorientation as a result of physical diseases, dietary practices, pacification through drugs and environmental factors. Wahl (1976) described disorientation with psychological, social and physical



implications. She discussed a "residual sense of social disorientation" (page 146) that may exist for a long time as a result of disruption of family or social ties. When the elderly exhibit this disorientation, it is often assumed that there is brain damage, and with such a diagnosis, the condition is frequently assumed to be irreversible and no treatment is started. Wahl discussed the stress of either physical or mental disease as another factor in disorientation, and the stress of a change in routine or environment as added stress for elderly patients, stress which may lead to disorientation. Sensory changes in aging which add to the likelihood of confusion because of "partial or incomplete reception of orienting stimuli" (page 152) are other factors that contribute to the manifestation of disorientation.

Burnside (1976) stressed the importance of sensory loss and sensory changes which result in "misperception of the milieu" (page 388). The misperception may be misinterpreted as disorientation by the attending staff. Simon (1973) suggested that supportive human care and modification of intrapersonal, extrapersonal and interpersonal attitudes can aid the disoriented patient. Both nurses and physicians have recognized the multiplicity of causes of disorientation in the elderly.

Although the previous authors have suggested some underlying causes of disorientation, they did not address specifically the effect of relocation on orientation in the elderly. The following sorts of questions still remain unanswered: (1) When does disorientation start? (2) Does the patient arrive at an acute hospital already confused? (3) Is hospitalization itself such a stressful time for the

elderly patient that he slowly loses touch with reality? (4) Is disorientation related to the stress of moving to the long term care facility?

Robinson (1974) described hospitalized elderly as "persons in crisis...newly admitted to an institution and disoriented and disorganized in their new environment" (page 89). She discussed the occurrence of disorientation soon after institutionalization as a "phenomenon not uncommonly seen by nurses (page 89). In a study to determine the effects of nursing intervention on confusion, Robinson used therapeutic interaction during the first six days of institutionalization. This technique provided some improvement in an experimental group of twenty newly institutionalized elderly persons. Persons in the control group, however, deteriorated. Nichols (1970) studied 110 institutionalized elderly by administering a screening interview shortly after the subjects were admitted to a chronic care hospital. She found about half of these elderly to be moderately or severely disoriented. The findings of this study may not be applicable to the current study as some of these patients had been institutionalized for many years and some were newly admitted. It was not stated whether the newly admitted elderly came from an acute hospital or home.

The investigator had observed elderly patients waiting to go to a long term care facility, and found they received differential nursing care. Nursing staffs frequently paid less attention to these elderly patients. If milieu is important in maintenance of orientation, and transfer from one facility to another is a stressful situation, then nursing care during the transfer period may have real impact on

preventing disorientation. If the waiting time in the acute hospital is a factor in development of disorientation, then this is a time when the elderly patient needs nursing counsel and support most of all.

Disorientation in the elderly is the most common early symptom that something is not right. Just as a high fever is an early symptom of childhood disease, disorientation is evident early in old-age disease (Hirschfeld, 1976 & 1978). Disorientation affects not only the patient and his physical status, but his family and support system as well. Families of home-bound elderly, or nurses aides who do most of the direct care in long term care facilities have few skills to deal effectively with disoriented patients. As a result, these patients are ignored, teased, or laughed at. Under these circumstances, the elderly person has little chance to test reality, so can become more and more confused as time passes. Also, there is a highly significant relationship between incontinence and disorientation (Hodkinson, 1973). The continuous task of attending to the personal hygiene needs of an elderly relative or patient is not enjoyed by caretakers, whether they be family or nursing staff. The other residents in a long term care facility are effected by disorientation as there is little chance for healthy social interaction with a confused roommate. The presence of disoriented persons is frequently depressing or aggravating to others who come in contact with them.

### Review of Literature

Some of the earliest, classic studies focused on already institutionalized elderly using mortality rates as the dependent variables.

Lieberman (1961) examined the records of 860 applicants to an institution for the aged over a 12 year period. He found that 24.7 percent of the subjects that relocated died during the first year after admission, while only 10 percent of the waiting list group died. This study is repeatedly cited as showing the increased death rate related to relocation. However, Kasl (1972) pointed out that it may be a simple arithmetic error that accounts for the startling difference in death rate. The length of time of the control and experimental groups was different. The relocated patients were studied for one year after transfer, while the waiting list was calculated for 6.4 months. If the annual rate were adjusted, the difference might not be so striking.

Aldrich and Mendkoff (1963) studied 182 elderly subjects who were relocated from one institution to another. His convincing data showed an overall death rate of 32 percent compared to an anticipated death rate of 19 percent. The anticipated death rate was calculated from data of the previous ten years of residence. He also determined that the increase in death rate occurred primarily during the first three months after relocation.

Jasnau (1967) studied "non-psychotic" geriatric patients and focused on mass-movement with little or no preparation, as opposed to subjects that received personal attention and preparation for the move. Jasnau found significantly higher mortality rates for the 49 mass-moved subjects. He also found that the death rate was 35 percent higher during the first year after relocation than it was during the year before relocation. His study may not have had the benefit of randomization in selection of subjects.

More recent studies have had different foci and have showed mortality rates stabilizing. Watson (1976) studied three sets of neuropsychiatric male subjects who were transferred en masse involuntarily and found no increase in deaths that he could attribute to the transfer. These elderly men were moved either to different wards in their institutions or to different buildings within the setting. His data did not show a substantial anticipatory effect.

Gutman (1976) studied elderly who transferred from one institution to another. The patients were given advance notice and were kept informed of the organization and planning of the move. These patients had the same staff during and after the move. This study showed a lower death rate than for the time before that move and suggests increased care and attention before and after relocation provides a protective effect of the elderly. The study also suggested that it is the degree of environmental change that increases the risk of mortality.

Liebowitz and Locker (1974) studied 48 elderly who moved within an institution and also had concentrated psychosocial support throughout the process. The researchers used criteria such as changes in behavior and attitude in analyzing the effect of the move. The residents showed increased passivity and behavior changes that were indicative of the stress they were experiencing, but they were able to reorient themselves quickly and there was no increase in death rate.

Bourstrom (1974) studied involuntary relocation involving a radical change in environment. Patients were divided into three groups: an experimental group which was subjected to radical change; a second group who were moved only one building away; and a third group

of patients who did not change their environment. This year-long study measured changes in health self-evaluation, relationships, and activity patterns, as well as mortality rates. A higher mortality rate occurred in the radical change group: 43 percent of the patients died in the six months preceding and the year following relocation. This compared to a mortality rate of 21 percent among the no-change group and 37 percent among the moderate-change group. The radical-change group showed a decline in health outlook, in the number of psychosocial activities, and a trend toward less intimacy with others. These findings suggest that it is the degree of environmental change that is important.

Smith and Brand (1975) studied 75 institutionalized elderly who were relocated to another nursing home. These researchers described relocation as a crisis of adjustment, and used life satisfaction index and social adjustment scales to measure outcomes. The findings suggested that although there are changes that occur with relocation, the elderly are resilient, and with support suffer few untoward effects from relocation.

Tobin and Lieberman (1976) studied over one-hundred community elderly with a longitudinal design and multi-variate analysis. The focus was on wait time as being the critical and stressful factor in relocation. The time was separated into a predecision phase, the anticipatory phase, the initial adjustment after admission (two months), and an adaptive period which lasted up to one year. There were three groups for comparison; a waiting list sample, a community sample, and a sample of institutionalized elderly. They found marked differences between the groups that were awaiting institutionalization and the

groups living in the community. The differences occurred in "cognitive functioning, affective response, emotional state and self-perception" (page 55). They found that the waiting list sample was more like a sample of institutionalized elderly than those living in the community. They concluded that the wait time was as stressful as the move itself. Wait time in their study was up to four months.

Pino (1978) used one hundred elderly who were in matched but different groups. One group was entering a nursing home for the first time, one relocated but prepared for the relocation with counseling, meetings and choice, and a third group was of already institutionalized subjects who were to move without any special preparation. A fourth group served as controls. He used pre- and post test measurements of many variables, including a Life Satisfaction Scale, the Mental Status Questionnaire, Personality Adjustment Scales and the Activities of Daily Living. He also developed a prognostic test for measuring readiness for relocation. Pino's test measures were significantly correlated with mortality and may be a useful tool for assessment and evaluation of preparation for relocation. The patients that were prepared for the move showed slightly less decline in life satisfaction and activities of daily living, than the groups of patients that were not prepared. He found a decline in all groups with the MSQ testing but the decline reached significance for the transferred groups.

The use of mortality rates as a dependent variable may be satisfactory for morticians' use, but nurses who are interested in quality of life need to use more humanistic measures in approaching research. Disorientation as a psychosocial phenomena is an important nursing

issue. If nurses can understand disorientation and the timing and conditions which affect it, they can use this information in planning nursing care which will allow the elderly to live out their lives in long term care settings in a meaningful, growth-producing way.

The literature search has not revealed data on the effect of transfer from an acute hospital to a long term care facility. If disorientation is likely to occur with this transfer, then it is important for nurses to study this critical time for elderly patients.

Despite the current emphasis in the gerontological literature on keeping the elderly at home, it is inevitable that many elderly people will be entering long term care facilities from acute hospital. Among the factors which suggest that transfer to a long term care facility will continue to occur are the increased numbers of elderly in our population, the high cost of acute care, the types of chronic illness among the elderly, and the decreased healing rates of elder people.

It is estimated that by 1980, there will be 24.5 million people over 65 in the United States (Bureau of the Census, 1972). Almost 5 percent of those elderly are in institutions, and of that 5 percent, about 22 percent, or 26 thousand elderly, enter long term care facilities directly from the acute hospital (Office of Nursing Home Affairs, 1975). This figure is expected to increase because of new regulations regarding reimbursement. Once a patient has been certified for long term care, the acute hospital will not receive Medicare funds for that patient, and it can be anticipated that there will be pressure for early transfer to a long term care facility. Thus the problem is seen to be increasingly significant.



Habeeb and McLaughlin (1977) have studied relocation from the point of view of nurses and social workers who are involved with placement and follow-up of elderly clients. Their two-phased study explored nurses' roles in the preparation of elderly clients to and the placement in long term care facilities, and nurses' expectations about their roles in these placement practices. Their study did not include any data on the changes that may occur in the client in the process of relocation.

Wolanin (1977 & 1979) has a comprehensive three year study in process which is attempting to describe and define confusion in the elderly. Her qualitative research is using grounded theory to generate new theories about confusion. Her multifocal studies offer promise of better things to come in the field of nursing research and disorientation in the elderly.

In a review of gerontological nursing research conducted over the past 25 years, Gunter and Miller (1977) discussed the critical need for more nursing research in the field of gerontology. They discussed the importance of research to clarify the role of nursing, so that a scientific data base can be used to give the kind of nursing care that will prevent avoidable disabilities.

### Summary

This chapter has discussed the problem of disorientation in the elderly in relation to relocation from an acute hospital to a long term care facility. A review of the literature revealed many studies of already institutionalized elderly who are being relocated, with

emphasis on mortality rates. There were no studies found on relocation from an acute hospital or on disorientation as a psychosocial phenomena. Disorientation as a psychosocial phenomena does have wide literature support.

The next chapter will discuss the conceptual framework and the hypotheses that arise from that framework.

## CHAPTER II

### CONCEPTUAL FRAMEWORK AND HYPOTHESES

#### A Model of Healthy Aging

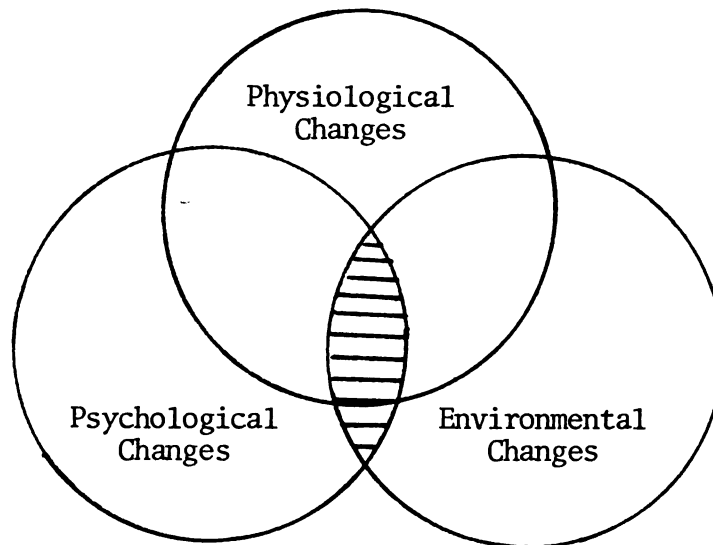
Elderly persons living today face many changes which can affect their health and well being. The elderly are affected by three different types of changes -- physiological, psychological, and environmental. These three types of changes are separate, yet they affect and overlap each other to varying degrees.

#### Iso-hydric Principle and the Three Types of Changes

The three types of changes, physiological, psychological and environmental, can be likened to the buffer systems of the iso-hydric principle. The iso-hydric principle refers to the acid-base balance of the body and the buffer systems that maintain the acid-base balance. Any condition that changes the balance of any one of the systems changes the balance of the others, for the buffer systems actually buffer each other. (Guyton's underline) (Guyton, 1971). Each category represents one buffer system in the form of a circle (see figure 1). When a change is added to one circle, the other two circles are affected. There is movement within the circle, and movement outside which moves the other two circles accordingly. This constant barrage of changes keeps the tricircular model in motion, in an attempt to maintain equilibrium.

When the healthy aged person is likened to this model of three circles, the circles slightly overlap each other.

FIGURE 1



HEALTHY AGING

The physiological changes of 'normal' aging include decreased cardiac, kidney, and liver functions. Of great significance is the overall decreased ability to maintain physiological and psychological homeostasis under stress (Woodruff & Birren, 1975). The sensory changes of decreased vision, hearing, smell, taste, and proprioception all interfere with optimum functioning. Sensory impairment, though physical, is connected to mental function (Snyder, 1978). These changes vary from person to person and are more evident with increasing old age (Woodruff & Birren, 1975).

The psychological changes include increasing egocentricity and passivity in controlling life's problems (Neugarten, 1968). There is increased cautiousness which makes the elderly person avoid situations that present risk of failure or embarrassment (Schaie, 1974). The multiple losses of late life and the threat of death are constant company to all old people (Butler, 1975). Despite all these negative changes, there are positive aspects to healthy aging, and one that provides satisfaction is the ability to control the immediate environment and to make choices about life.

The environmental changes of healthy aging include a view of the world as complex and dangerous (Butler, 1975). Even healthy elderly view the adjustment required to adapt to life's changes with great significance (Muhlenkamp, 1975). As an elderly person who is secure and content within an area called home, it requires energy and effort to move into and adapt to a strange place. It can be frightening to cross the street when you can't get across very fast -- the cars move so quickly and the drivers seem so impatient.

Even with good health, the elderly person faces many changes that require energy. With illness, the available energy is often concentrated on physiological functions, thus providing a potential for an unbalancing in the system.

### Illness and Hospitalization

When a serious illness or an accident forces the elderly person to enter a hospital, there are changes in equilibrium and increased overlap in each category of influence. In the physiological realm,

the normal changes are intensified or distorted by the illness, for example, pain and discomfort, decreased mobility, increased dependence on others and possibly the use of drugs.

The physiological changes interplay with the psychological changes resulting in increased awareness of body changes and deterioration, which may lead to a closer awareness of death. Two more losses that the client may have to cope with are the loss of physical stamina and the loss of good health (Mezey, 1977). Medications may cause changes, too, by adding to confusing feelings and by changing awareness of one's surroundings (Wolanin, 1979). The lack of privacy in hospitals makes for increased embarrassment and the tendency to increased cautiousness may be aggravated by the strange surroundings. It is often necessary to watch every step to keep from bumping into something, or from falling down on the slippery floor. The furniture is frequently moved around and is on rollers so it is not very dependable or steady. Often, for the elderly, it is easier not to move around this unfamiliar environment.

The multiplicity and interrelatedness of the changes are particularly obvious in the environmental realm. The move to the hospital was a total change; not only new surroundings but new people. The physical setting hampers independent mobility. The bright glaring lights, and the long halls with few familiar markings increase fear, confusion, and cautiousness.

The environmental sphere includes the social interactions between patients and medical or nursing staff. Hospital personnel tend to reward sick behavior (Steger, 1976) and medical environments seem to

produce pathological responses (Zarlock, 1966). Pleasant social interaction, if it occurs at all, is hurried. It may be increasingly difficult to communicate and relate socially, because of the decreased sensory abilities (Snyder, 1978) and the increased numbers of unknown faces. The control and choice which was pleasurable is slowly being lost. Hospital schedules are frequently rigid, and allow little choice in when to wake up, when to eat, what to wear or whom to talk to. It is easy to lose touch with such a reality.

The elderly person has by now experienced multiple, interrelated changes in life which might be frightening and confusing. It may become increasingly difficult to accept and adapt to all the changes. There is still the hope of getting well and returning to life as it was before the hospitalization. Nichols (1974), in a study of elderly clients going home from a long term care facility, found that the hope of going home was an important motivator and aim for all the subjects. Without that hope, the changes could be overwhelming.

The overlap of the spheres of influence is increased, and the effect of the many changes magnified for there may be few energy resources left to buffer the effect of these changes.

#### Anticipating Institutionalization

When the elderly person starts to recover from his illness, and is told that he will be moved to a long term care facility, the hope of going home is gone, or at least must be delayed. The probable loss of the loved and familiar home is painful, and further, there is still another new, unfamiliar place to which to adjust. The stereotypes for

long term care settings, such as poor care, neglect, and mistreatment are well known to the elderly. Fears of the new place add to the confusion and the fear of the sick old people who are to be neighbors may add to the depressing picture of the prospective situation.

There is also an ambiguousness that is confusing. The patient thought he was getting well. Questions such as, are the doctors keeping something from him, is he going to die, may arise. Many times the nurses won't talk about it, they seem to be so busy. The anxiety of institutionalization is made worse by the loss of control and choice in most all aspects of life. And usually he doesn't even know when he will move.

### Time

Another force is operating in all the spheres. That force is time. The wait time is as stressful as the move itself (Tobin, 1976). Often it is not known to the patient when the move will be, or there is a long and indeterminate wait for a bed to open up.

The reality of these multiple, interrelated changes is painful and to escape the physiological and psychological pain, the elderly person may withdraw, and reality perception will be diminished.

If the reader is confused by the multiplicity of all the changes, imagine how confusing it might be to actually be experiencing these changes, particularly if you are past sixty?

### The Day of Transfer

When transfer day comes, the multitudinous nature of past threats,



plus the fears and uncertainties of the future, make it increasingly difficult to cope with the situation. The immediacy of the situation is aggravated by a nursing staff who is possibly in a hurry to get the patient ready, and by a housekeeping staff that is most interested in cleaning the bed for the next patient. The long wait for the ambulance culminates in hurried goodbyes and perhaps perfunctory treatment in placing him alone in the back of the ambulance. Arrival at the long term care facility may also be hurried and impersonal. This series of events further increases the chance of the development of disorientation.

Once disorientation starts, it will rarely reverse itself without skilled interventions (Wahl, 1976; Wolanin, 1979). The elderly person may continue to be confused and become increasingly confused as time passes.

#### Adaptation Behavior and Energy

The effect of any changes can be better understood with an explanation of the adaptation behavior of humans. A change to the human organism, whether it be on the cellular level (bacteria invading) or psychological level (loss of spouse) produces a reaction in the human. This reaction (breakdown of neutrophils) (grief) leads to a defense mechanism (phagocytosis) (denial), which can be adaptive or maladaptive. The type of defense mechanism resulting depends on ego strength, past behavior and learning, support systems, and available energy. An adaptive mechanism results in behavioral phenomena (walling off of the bacteria) which aims at neutralizing the original reaction and/or the

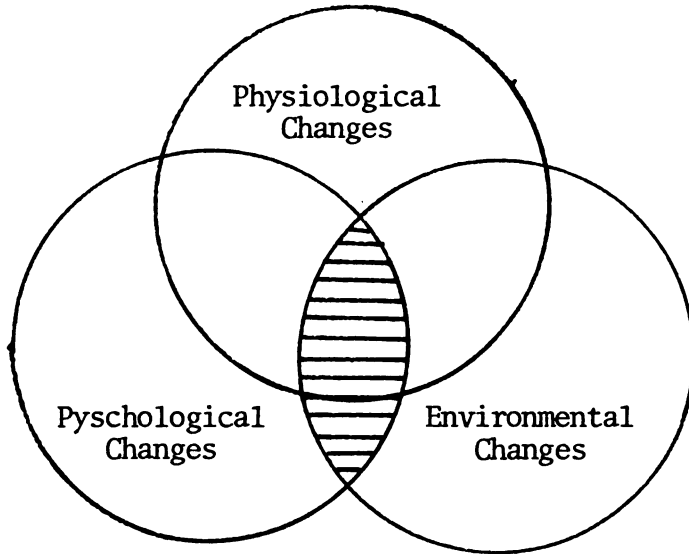
original change. The adaptive behavior returns the organism to a state of equilibrium (no infection). A maladaptive behavioral phenomena (neurotic depression or hyperactivity) does nothing to the original change and tends to result in a downward spiral of useless activity (Guyton, 1971; Verwoerdt, 1976).

Whether the behavioral phenomena is adaptive or maladaptive, it must be recognized that each process of adaptation requires energy. Man has only so much energy, and if that energy is used to cope with a hectic environment, there is less energy to prevent disease (Williams & Holmes, 1978).

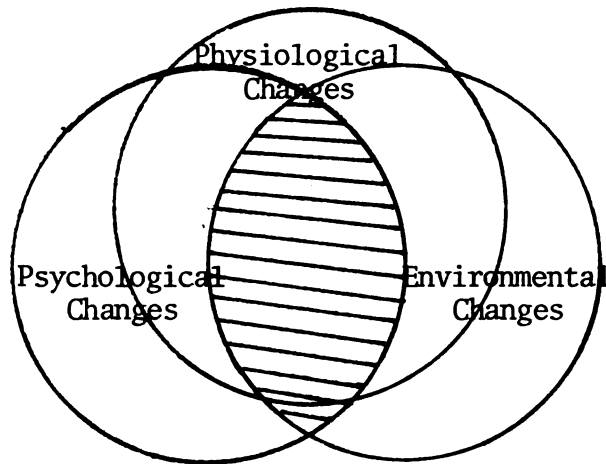
There are many defense mechanisms which may be used, but for the older human with little energy, with a physical illness, with few support systems, and with an overall decreased homeostatic ability, the defense mechanism often will be of a passive nature, and the behavioral phenomena resulting from that defense mechanism is disorientation (Verwoerdt, 1976).

The model of the three interrelated circles has changed. If each circle can be seen as a different color, then the inner core will be a combination of colors and be darker than the other parts of the circles. As each circle takes on added depth, and as the outside force of time pushes the circles closer together, the central core becomes darker and murky; it is that dark, murky, internal state that represents the confused condition of the elderly person.

FIGURE 2



HEALTHY AGING  
(As in Figure 1)



AFTER TRANSFER

A conceptual framework drawing from the interrelatedness of physiological, environmental and psychological changes as they may be factors in the development of disorientation was presented. Further, the effects of wait time as an additional stressor were incorporated. From this framework, the following hypotheses were developed.

### Hypotheses

1. The level of orientation of the elderly person will show a downward trend with each succeeding two week interval of wait time in the acute hospital.
2. The level of orientation will be lower on the day after transfer than on the day before transfer.
3. There will be no change in orientation with each succeeding two week interval after admission to the long term care facility.

### Summary

This chapter has included the conceptual framework and the hypotheses that were to be tested. The conceptual framework builds from the process of healthy aging, to the situation of hospitalization and the inherent changes that require adaptation, to the threat of long term institutionalization, and finally to the day of transfer. From this framework, three research hypotheses were developed.

The next chapter will discuss the methodology used in the study. The design, settings, sample and data collection procedures will be detailed.

## CHAPTER III

### METHODOLOGY

#### Design

A panel survey was selected as the most appropriate design for this study. The longitudinal panel is composed of the same sample studied over a period of time (Babbie, 1973). Since the question of the study is the relationship between disorientation and relocation, it is necessary to choose a design that will allow the process of relocation to be observed and recorded scientifically. With this design, the orientation level of the subjects could be traced before and after relocation to a long term care facility, to see if disorientation occurred and if so, to see when it began, and what its course was. A panel survey design will provide this information.

#### Hypotheses

The following hypotheses were tested:

1. The level of orientation of the elderly person will show a downward trend with each succeeding two week interval of wait time in the acute hospital.
2. The level of orientation will be lower on the day after transfer than on the day before transfer.
3. There will be no change in orientation with each succeeding two week interval after admission to the long term care facility.

### Definitions

1. Orientation is the ability to know time, place and person (Verwoerdt, 1976).
2. Wait time is the time from knowledge of acceptance to a long term care facility, to the day of transfer.
3. The transfer process is the day of moving from the acute hospital to the long term care facility, and includes the ambulance trip and the first few hours after admission.
4. Level of orientation is determined by the tool used in testing, the Mental Status Questionnaire (see page 25). The raw score indicates the number of errors made in testing. The level is a combination of raw scores into four grades of orientation.

<u>Number of Errors</u> (raw score)	<u>Level of Orientation</u>
0-2	Oriented
3-5	Mild disorientation
6-8	Moderate to severe disorientation
9-10	Severe disorientation

### Setting

A seven hundred bed acute care county hospital and a nine hundred bed long term care county hospital were the sites of the study. The county facilities were chosen because of easy access to both facilities, and because of a fairly large number of elderly who move from one institution to the other. It was recognized that the sample is limited in terms of external validity, with a county hospital setting.

The sample was drawn from four different wards in the acute care hospital and were transferred to either the admitting ward or the rehabilitation ward at the long term care facility.

The two facilities differ in a number of ways. The acute care hospital was three years old and the long term care facility was over fifty years old. The acute care hospital is composed of private and semi-private rooms and the long term care facility is composed of open wards. There were more University teaching programs at the acute care hospital, and the staff-patient interactions were different. In the acute care hospital, there were few interactions observed between the staff and the patients, except when specific tasks had to be done, while in the long term care facility, the staff was frequently observed interacting with patients. There was no apparent communication between the nursing staffs of the two institutions.

The two institutions were about three miles apart and the patients were transported by the city ambulance.

### Sample

For inclusion in the sample, subjects met the following criteria: they were

- (1) scheduled for transfer to the long term care facility.
- (2) over sixty years of age.
- (3) willing to participate in the study and willing to sign the consent form.
- (4) able to communicate in English.

Excluded were such conditions as:

- (1) cerebral vascular accidents.
- (2) psychiatric diagnoses.
- (3) head injuries.
- (4) previous patients at the long term care facility.
- (5) total deafness or blindness.

Physician's consent was obtained for all subjects. (See Appendix.) During the six month testing period, nineteen people were successfully interviewed. Twelve had to be excluded because of the conditions listed above. Two met the criteria but refused to participate. Five were seen for the first testing, but were dropped because they either went to other long term care facilities or were able to go home.

### Tools

Orientation level was assessed with the Mental Status Questionnaire (MSQ) (Kahn & Goldfarb, 1960). The MSQ is a commonly used test of mental function which has been tested for reliability (Stonier, 1974). It requires about three minutes to administer. The MSQ was chosen because of the shortness of the test, the ease of administration, and because of the lack of any more significantly definitive test of orientation. Longer tests which have the possible advantage of monitoring changes in orientation more clearly (Hodkinson, 1972) have the disadvantage of being less convenient and less acceptable to the elderly.



The MSQ was administered to the subjects as follows:

- (1) within 24 hours of acceptance to the long term care facility.
- (2) every two weeks until the day before transfer.
- (3) the day before transfer.
- (4) the day after transfer.
- (5) the second and fourth week after transfer to the long term care facility.

Two week intervals were chosen to decrease chance of practice effect (Stonier, 1974). Testing was done on the day before and the day after transfer as this was perceived to be the critical time.

#### Interview Questions

Three interview questions were used as a tool for obtaining additional data relating to control and predictability. For control/choice, each subject was asked, how did it happen that you are going to \_\_\_\_\_? This question was designed to tap decisional control to see if choice was correlated with orientation. Schulz and Brenner (1977) have discussed relocation as a stress and theorize that controllability and predictability are mediators of stress. Personal control is separated into three types, cognitive, behavioral, and decisional control, and is defined as "the ability to manipulate some aspect of the environment" (p. 324).

For the data on predictability, each subject was asked what he/she knew about the long term care facility and what feelings they had about going there. These questions were chosen to see if there is

any relation to predictability and the orientation of the subjects. Predictability is defined as the ability to foretell what the environment will be like. Schulz and Brenner (1977) discuss that the more a person is able to predict a new environment, the less chance of negative effects of relocation.

A fourth question was asked about the nature of the ambulance ride. This question was included because it was theorized by the investigator that if the ambulance ride was impersonal and difficult, that might add to the trauma of relocation.

The initial interview, which was within twenty-four hours after the subjects had been accepted by the long term care facility physician, was conducted in the subjects' room at the acute hospital. The study was explained to the subject, the consent signed, and then the Mental Status Questionnaire was administered. Fifteen seconds was allowed for responses to each question. When a subject missed a question on the MSQ, he was told the correct answer after the testing was completed. The three interview questions on control and predictability were asked after the MSQ. The question about the ambulance ride was asked on the day after transfer. Demographic data were obtained from the patient's chart after the initial interview.

### Analysis of Data

Data obtained from the MSQ were ordinal. A Wilcoxon Matched-Pairs Signed-Ranks Test was used on the difference in scores between the day after and the day before transfer. Crosstabulation analysis was done on the demographic data with the MSQ measurements, to see if

there was any significant correlation for discussion. Trend analysis was to have been used for hypotheses one and three. There was, however, insufficient data to test hypothesis one, and hand analysis demonstrated that there was minimal change in the MSQ scores between testing period three and five.

Descriptive statistics were used to analyze the demographic data as well as data obtained from the four interview questions.

### Summary

The Mental Status Questionnaire was administered to 19 elderly subjects drawn from four units of a large metropolitan county hospital. All subjects were transferred to an affiliated county-run long term care facility. The MSQ was administered at least five times, twice prior to transfer, and three times following transfer -- over a four week period. Data were analyzed using the Wilcoxon Matched-Pairs Signed-Ranks Test and crosstabulation analysis. Data from three open-ended interview questions were qualitatively analyzed.

The results and a discussion of the results may be found in the next chapter.

## CHAPTER 4

### FINDINGS AND DATA ANALYSIS

#### Introduction

This chapter will include the findings of the study. First, a demographic description of the sample will be presented. Secondly, the quantitative data from each hypothesis will be presented and discussed, with crosstabulation analysis of all the variables. Finally, qualitative data from the open-ended questions will be presented and discussed.

#### Sample Characteristics

The sample consisted of nineteen elderly people: twelve males (63%) and seven females (36%) (see Table 6). The mean age was 71.1; the range from sixty to eighty-six.

Thirteen subjects (68.4%) were white, five (26.3%) were black and one was oriental. Seventeen (89.5%) of the sample were single; this included those that were widowed or divorced. Only two of the sample were married. Five subjects had some family for support. Family was interpreted as some close family member who was at least within visiting distance. Many of the sample had children or siblings who lived in another part of the country and were not an active part of the life of the subject. Ten subjects (52.6%) were without any support from family and friends. Four subjects counted friends as support -- this support was in some instances, obviously a meaningful

force in the subjects' life. One subject had so many loyal friends that it was difficult to get her alone to interview her. She always had a visitor from her church or neighborhood.

Eight subjects had orthopedic diagnoses, three had surgical and three had medical diagnoses. Five were categorized as unable to care for self. This last category was chosen because while these subjects had several diseases, like mild skin disease, asthma, dehydration and cathexia, they essentially were unable to care for themselves at home. Several of the subjects did not have anyone at home to take care of them. One subject had been found wandering in her hotel, and needed someone to help her care for herself.

#### Data Handling

MSQ scores may be calculated using either raw scores or by the level of orientation. MSQ scores and the corresponding levels are as follows:

<u>Raw</u>	<u>Level</u>
0-2	--0 or orientation
3-5	--1 or mild disorientation
6-8	--2 or moderate disorientation
9, 10	--3 or severe disorientation

Scores were calculated as group scores for the five Mental Status Questionnaire (MSQ) testing times. Mean, median and modal values for raw MSQ scores and MSQ levels were calculated and frequencies determined. (See appendix 2 for complete data.) Data were keypunched

and submitted to computer analysis.

### Findings

Hypothesis one: The level of orientation will show a downward trend with each succeeding two week interval of wait time in the acute hospital. Since only two subjects waited longer than two weeks, and since the average wait time was 10.6 days, this hypothesis could not be tested.

Hypothesis two: The level of orientation will be lower on the day after transfer than on the day before transfer. Change scores were calculated by subtracting the group day after transfer score from the group day before transfer scores. These change scores were subjected to analysis using the Wilcoxon Matched-Pair Signed Ranks Test (Siegel, 1956). Data is presented in Table 1. The desired level of significance  $p \leq 0.05$  was not achieved using either the raw scores or the level of orientation score. This hypothesis was rejected.

Table 1

#### Wilcoxon Matched-Pairs Signed-Ranks Test (By Level)

N=19	2-Ranks Mean	4+Ranks Mean	Z	2-Tailed P
	3.00	3.75	-0.943	0.345

#### Wilcoxon Matched-Pairs Signed-Ranks Test (By Raw Scores)

N=19	5-Ranks Mean	5+Ranks Mean	Z	2-Tailed P
	4.40	6.60	-0.561	0.575

Crosstabulation and chi square analysis was also done on the group test scores for the day before and the day after transfer. That data is presented in table 2. Chi square analysis showed this significance at  $p = 0.03$  but this significance is questionable because of the small sample size with resultant empty cells. It might, however, suggest a trend towards lowered level of orientation following transfer. This analysis was done on the orientation level scores and not the change scores. The orientation level of thirteen subjects did not change, while two got better and four got worse. Nine were at level 0 (oriented) before and after transfer, one was at level 1 (mildly disoriented) and three were at level 3 (moderately disoriented).

Table 2

Chi Square Analysis of Level of Orientation  
Day Before Transfer and Day After Transfer  
(N=19)

		Day After (By Level)			
		0	1	2	
Day Before Transfer (By Level)	0	9	3	1	13
	1	1	1	0	2
	2	0	1	3	4
		10	5	4	19

Acceptable significance:  $p \leq 0.05$

Actual significance:  $p \leq 0.03$ .  
Cannot be accepted because of  
too many empty cells.

Individual raw score and level score changes between the day before and the day after transfer appear in table 3.

Table 3  
Individual Raw Scores --  
Day Before and Day After Transfer

Subject	Day Before / Day After		*Level Change
1	1	1	
2	7	7	
3	1	1	
4	2	6	- *
5	2	5	- *
6	3	2	+ *
7	7	4	+ *
8	0	0	
9	5	5	
10	1	0	
11	2	1	
12	0	0	
13	0	0	
14	1	4	- *
15	8	8	
16	0	0	
17	1	1	
18	6	7	
19	2	3	- *

The data from hypothesis two suggests that the transfer process did not affect the orientation level of most of this sample. The study included many elderly who started out being oriented and stayed oriented throughout the study. This could be, in part, to the short wait time (10 days average). The subjects, on the whole, were well oriented immediately prior to transfer, and so less susceptible to marked changes in orientation. Factors which might have influenced the test results were the presence of the investigator, and subject



recall, as only one day separated the day before and day after testings. The subjects that scored higher (more confused) seemed to be the ones that got even more confused following transfer. This agrees with the findings of Hodkinson (1972) and Lieberman (1974).

Hypothesis three: There will be no change in orientation with each succeeding two week interval after admission to the long term care facility. Mean, median and modal group values for both raw MSQ scores and level scores were calculated and appear in table 4. This hypothesis was accepted.

Table 4

	MSQ Score	Mean	Median	Mode
Initial Testing	By Level of Orientation Raw MSQ Score	0.684 3.10	0.45 0.36	0 0
Day Before Transfer	By Level of Orientation Raw MSQ Score	0.526 2.63	0.23 2	0 1
Day After Transfer	By Level of Orientation Raw MSQ Score	0.684 2.89	0.45 0.45	0 0
Two Weeks After Transfer	By Level of Orientation Raw MSQ Score	0.632 2.684	0.36 1	0 1
Four Weeks After Transfer	By Level of Orientation Raw MSQ Score	0.375 3.10	0 2	0 2
*(three missing)				

\*Missing data: one subject died, and two left the long term care facility before the final testing.

There is a slight trend in the raw scores toward a higher score (or greater disorientation) at the final testing, but the change is not a significant one. This data suggests that this sample of elderly maintained their level of orientation during the four weeks post transfer. This finding also suggests that the long term care facility environment is supportive for the subjects. The long term care facility is geared for elderly clients -- it is home-like and more relaxed than the acute care setting from which they came. It might also be reasoned that improving physical status (many subjects were undergoing intensive rehabilitation) and the prospect of being discharged were factors promoting a continued high level of orientation.

#### Demographic Variables and the MSQ Scores

Cross tabulation and chi square analysis were used to compare the MSQ at the different testing times, and to look for significant differences in any of the other variables. The most significant finding was in the relationship between the unit of admission at the long term care facility and orientation level. The subjects who went to the admitting ward were significantly more confused than those who went to the rehabilitation ward. See data, table 5. In the subsequent testings at two and four weeks, there was still a strong trend in the direction of significance, reaching significance again at the four week testing. This final statistic may not be reliable, however, because of the three subjects missing from that testing. There is a small N in all testings, only seven for the admitting ward, with the final testing of only six.

This data suggests that there is some relationship between the admitting ward, the rehabilitation ward, and orientation level of the elderly clients. The difference might be within the sample, that is, those admitted to the admitting ward might be sicker physically than those who went to the rehabilitation ward, and so more likely to be disoriented. Orientation might be a factor considered in determining to which ward subjects are sent -- that is, the less disoriented patients are perceived to be better candidates for rehabilitation or conversely, the more disoriented patients, poorer candidates for rehabilitation, and so sent to the admitting ward. The differing environments could also be a factor in changes in orientation level. Descriptions of the two wards are presented at the end of this chapter.

No significant differences were found on age, sex, race, marital status, disease, or support systems. This data can be seen in table 6. While it might be expected that older age would correlate with the MSQ scores, the fact that only one subject was over 80 certainly influenced this correlation. Disease might also have been expected to correlate with MSQ scores; however, the nature of this sample, no cerebral vascular accidents and no psychiatric conditions, may well have been an influencing factor.

Table 5

Chi Square Analysis of Frequencies and MSQ Score By Level -- Day After Transfer

Ward	0(0-2)	1(3-5)	2(6-8)	
Rehab	8	4	0	12
Admitting	2	1	4	7

Significance  $p \leq 0.013$

Two Weeks After Transfer

Ward	0(0-2)	1(3-5)	2(6-8)	3(9,10)	
Rehab	9	3	0	0	12
Admitting	2	2	2	1	7

Significance  $p \leq 0.078$

Four Weeks After Transfer

Ward	0(0-2)	1(3-5)	2(6-8)	
Rehab	10	1	0	11 (2 had been discharged)
Admitting	2	1	2	5 (1 died)

Significance  $p \leq 0.05$

Acceptable Significance:  $p \leq 0.05$

Table 6

Crosstabulation of Demographic Variables With  
MSQ At All Testing Times Using Chi Square Analysis

Variable	N	Initial Testing	Day Before	Day After	2 Weeks	4 weeks
Age						
60-69	7	$p \leq 0.15$	$p \leq 0.10$	$p \leq 0.19$	$p \leq 0.00^*$	$p \leq 0.09^*$
70-79	11					
80-89	1					
Sex						
Male	12	$p \leq 0.26$	$p \leq 0.09$	$p \leq 0.62$	$p \leq 0.50$	$p \leq 0.53$
Female	7					
Race						
White	13	$p \leq 0.68$	$p \leq 0.15$	$p \leq 0.25$	$p \leq 0.20$	$p \leq 0.01^*$
Black	5					
Oriental	1					
Marital Status						
Single	17	$p \leq 0.47$	$p \leq 0.14$	$p \leq 0.62$	$p \leq 0.83$	$p \leq 0.02^*$
Married	2					
Support System						
Family	5	$p \leq 0.44$	$p \leq 0.09$	$p \leq 0.45$	$p \leq 0.54$	$p \leq 0.11$
Friends	4					
None	10					
Disease						
Orthopedic	8	not done	$p \leq 0.38$	$p \leq 0.50$	$p \leq 0.62$	$p \leq 0.50$
Medical	3					
Surgical	3					
Unable to Care for Self	5					
Wait Time						
Up to one week	7	not done	$p \leq 0.28$	$p \leq 0.04^*$	$p \leq 0.58$	$p \leq 0.48$
Up to two weeks	10					
Up to 41 days	2					

Acceptable level of significance:  $p \leq 0.05$ .

\* too many empty cells in Chi Square analysis to be reliable significance.

One subject died during the time of testing. This woman had the highest MSQ score, that is, she was the least oriented of all the subjects.

### Choice and Predictability

Schulz and Brenner (1977) have discussed relocation as a stress and theorized that controllability and predictability can mediate that stress. Choice control in this study was considered as decisional control (see page 26) and defined as the ability to manipulate some aspect of the environment. Predictability was defined as the ability to foretell what the environment will be like (see page 27). Data was collected on these variables through open-ended, interview questions.

Crosstabulation and chi square analysis was used to compare the MSQ scores with the choice and predictability variables. This data can be seen in table 7.

Table 7

Choice and Predictability with MSQ Score at  
Testing Times -- Chi Square Analysis

		Day Before	Day After	Two Weeks	Four Weeks	
Choice	None Choice	17 2	$p \leq 0.14$	$p \leq 0.04^*$	$p \leq 0.09$	$p \leq 0.21$
<u>Predictability</u>						
	Could predict (positive)	12	$p \leq 0.42$	$p \leq 0.58$	$p \leq 0.36$	$p \leq 0.50$
	Could predict (negative)	4				
	No response	3				

Acceptable significance:  $p \leq 0.05$

\*Too many empty cells to accept significance

### Choice

The variable of choice shows some significance with level of orientation on the day after transfer. That significance is unreliable because of the small sample size and resultant empty cells but is suggestive of a relationship.

Seventeen (89%) subjects had no choice in the decision of where to go for long term care. These subjects were told by the medical staff at the acute hospital that they were going to the long term care facility. Examples of responses to the question of choice were: "I was told I was going" or "I had no choice, where else could I go?" Of the two that said they did choose this long term care facility, one did so because her husband worked in the kitchen and the other

only for the benefits of the rehabilitation ward.

Several factors could explain this lack of choice. (1) Unavailability of physicians: For example, when the admitting physician at the long term care facility was on vacation, no new patients were seen or accepted. (2) Unavailability of Placement Facilities:

(a) At one time during the study, private hospitals in the community demanded space for their patients, and so those waiting at the county hospital had to wait longer. (b) Third party payments which were intended to help people pay for their hospitalization have in some cases created untenable situations for the elderly. The utilization review boards now certify patients and set limits on the number of hospital days for which Medicare will pay. The acute hospitals are anxious for early transfer, and so the patient might have less choice about which long term care facility to go to or when to go. During this study, it was observed that some elderly were sent many miles from home and family, because of the limited eligibility and pressure for acute beds. If there were more, or other facilities available in the community, it is possible that the subjects would have been offered a choice. (3) Unavailability of funding: This study was conducted immediately after the passage of legislation that seriously affected funding from city, state, and federal levels. There was a resultant freeze on all transfers to city institutions, so patients needing long term care or rehabilitation had to remain in the acute setting. (4) Teaching Goals of the Acute Hospital: Some subjects in this study were scheduled and ready to go to the long term care setting, when an intern in the hospital decided to work up the patient,



thus delaying the transfer. It is unclear whether this medical work-up had any relation to the subject's illness therapy. (5) Inadequate coordination of existing staff for planning. The subjects did not know in advance when the day of transfer would be. Four subjects did not even know on the day of transfer that they were going to the long term care facility. Because of the many people involved with the communication of this information, the message often did not get to the elderly person until the last minute. It was only through participation in this study and the testing done the day before that many of them knew when they were to go.

#### Predictability

When an individual thinks that he can predict his environment (and therefore partially control it), the stress concerning the event of changing environments will be lessened, and when individuals have been prepared for a move, their ability to predict the type of environment is improved, and they will have less negative effects on relocation (Schulz, 1978). When asked "What do you know about the long term care facility and what are your feelings about going there?", twelve subjects responded with comments such as, "I've heard good things about the place -- things I've read in the newspapers, or heard on television have made it sound good." They predicted that the environment would be a good one for their own rehabilitation or health. Six subjects had developed this perspective through personal experience, or experiences of friends or family. The other six did not have any personal experience with the facility. Three subjects thought it was

a "terrible place" and one actually feared going there. Three subjects did not answer the question about predictability.

It is clear from the responses that many subjects not only could predict the environment, they had either positive or negative attitudes about the type of environment.

Most of the sample also wanted to know about small details that were causing them difficulty about the long term care facility to which they were going. Such questions as, "Will I have a semi-private room?", or "Can I use a telephone, there?" or "Will my wheelchair be safe?" were uppermost in their minds. Other questions concerned their personal welfare checks or with one man, his lost dentures. Most of the sample wanted to know what it was like, and what I (the investigator) thought of the long term care facility. This data suggests that the subjects had a real need for more detailed information about the long term care facility.

#### The Ambulance Ride

Since a dehumanizing ambulance ride was considered a possible factor in this study, that data is included. When asked about the ambulance ride, nine commented favorably. Four subjects thought the trip was 'terrible,' or 'bumpy' and said 'we were packed in like sardines.' Six did not respond to that question.

#### Environmental Data

The environment is increasingly seen as important for maintaining orientation (Burnside, 1976; Snyder, 1978). At the long term care

facility, there were some differences in the environments of the rehabilitation and admitting unit as noted earlier. Both wards were open, with about eight beds side by side, facing eight other beds. Both wards had a wall crosswise that separated the ward in half, and kept the male and female patients separated.

The admitting ward, however, seemed very much like a hospital setting. There was little interaction observed between patients, or between nurses and patients. The aides and orderlies were seen interacting with the patients but usually doing physical care.

The rehabilitation ward was painted in deep pastel shades, with some variety of colors in different panels, or in the ceiling overhangs. The effect of the attractive color scheme was peaceful. The windows had blue and green striped shades, and lots of green plants hanging around. The atmosphere was more relaxed and homelike than a hospital setting normally provides. The rehabilitation ward was very active, with the physical therapy department immediately across the hall and patients wheeling themselves back and forth frequently. There was usually at least one radio and one television playing. There were not large numbers of medical staff evident, but all the nursing staff was seen interacting with patients, not only for physical care but in conversation too. There often was patient-to-patient interaction observed. This environmental data suggests some differences which could effect the orientation level of the sample.

### Summary

This chapter presented the demographic description of the sample and the results by hypothesis. Only hypothesis three was accepted; there was no change in orientation during the first four weeks at the long term care facility. Crosstabulation analysis indicated subjects who went to the admitting ward were more confused than those who went to the rehabilitation ward. Data revealed that 89% of the sample were given no choice in where to go for long term care. Qualitative data concerning the environments of the units and data concerning the individual patients need for more concise information about where they were going was included. The next chapter will provide a discussion of the pertinent findings of the study, and some suggestions for nurses relating to the findings. Possibilities for future research will finish the chapter.

CHAPTER 5  
DISCUSSION, IMPLICATIONS AND CONCLUSIONS  
FOR NURSING SERVICE AND RESEARCH

Discussion

Short Wait Time

The findings of this study suggest that once it has been established that long term hospitalization is necessary, reducing wait time may be beneficial for the elderly person's orientation level. If then, the nurses can urge a quick transfer, that may lessen the stress of relocation. Acute hospitals tend to put high emphasis on seriously ill patients, and do not seem to provide the special types of sensory stimulation that the elderly seem to benefit from. Alternative solutions to providing the special environment for the elderly is to include a ward in acute hospitals just for the elderly. Many hospitals provide adolescent wards, why not do the same for the elderly? Or, the elderly could be admitted directly to long term care settings that have acute wards. This direct admission would also save the disruptive step of transfer.

Choice/Control

While the lack of choice did not seem to affect the orientation level in this study, it is of significance to nurses that seventeen (89%) of the sample had no choice in the decision about transfer to

long term care. This is an area in which nursing can be effective. There are many possible reasons for this finding. Among the reasons given in Chapter Four are the unavailability of physicians, unavailability of facilities, inadequate coordination and planning, and inadequate funding. Whatever the reasons, there are many things that nurses in acute care settings can do to aid the patient through this stressful time. If the elderly cannot be given choice in where to go because of limited facilities available, they still can be given choice of some aspects of the process of transfer to a long term care facility. Nurses can encourage this sort of control by giving their elderly patients as much opportunity as possible to make their own decisions. For example, the nurse can encourage choices in what to wear, how to spend time and how care is given. The nurse can also encourage the medical staff to look into options, or know enough about them herself that she can refer facilities to her patients. She can also be aware of the increasing numbers of facilities in the community which have been developed to encourage the elderly to stay out of hospitals and in the community. This information would be useful to the medical staff in planning long term care. Even with limited or no local resources, the patient can still participate in the choice of a distant facility. Elderly patients apparently benefit from being an active participant in decision making about their welfare.

#### Other Findings

Most of this sample had a real pressing need for answers to their questions about the long term care facility. "Negative response to a

stressful event will be lessened to the extent the individual feels it is predictable and/or controllable" (Schulz & Brenner, 1977, p. 324). The nurse can help the patient feel some predictability by being available frequently and repeatedly to answer the questions that an individual will have. If the acute care nurse can familiarize herself with the long term facility, and answer the questions that each person has, that might aid the patient in reducing the stress of relocation. A nurse from the long term care facility might visit the patients before the transfer and work with the patient and nursing staff directly, planning and coordinating the care during and after transfer. Since it seems to be largely a nursing care decision about long term institutionalization, why not let a nurse be the one to initially interview the patient? At that time, she could start providing the answers to whatever pressing issues the patient might be experiencing. This would also provide some continuity of care between the nursing staffs of institutions.

Those elderly who were already mildly confused became significantly more confused after transfer. Perhaps this finding is a clue to using the relatively simple MSQ as a predictive tool for those patients who critically need support during transfer, or who should not be transferred until their mental status can be cleared. The MSQ could be used by nurses in the acute care setting to develop their nursing care plans according to the needs of the patients. Wolanin (1979) found that the relationship between nurse-controlled activities, such as care plans and confused behavior is unclear, but nursing care does effect confusional behavior, thus emphasizing the need for actions aimed at preventing

such behavior.

There was significantly more confusion in those elderly who went to the admitting ward at the long term care facility, as opposed to those who went to the Rehabilitation ward. Some of this finding may relate to the previous paragraph, as this group were already more confused. It may be a part of the selection and screening process in determining who is rehabilitatable, but it may also be related to going for long term care and feeling hopeless about the future. The nurses taking care of these elderly need to be aware of the need to put their efforts into counseling and psychological support with emphasis on maintaining orientation. This is a time when highly skilled nursing, such as Robinson (1974) described, is needed.

Other implications might relate to the strength and resiliency of the elderly, particularly a sample such as was in this study. It was likely the persons in this sample had spent their lives in a county health care system. The medical care that they had received was always that of a typical county hospital, and they had no expectations of anything different, thus the treatment they received was not disruptive of their life pattern.

#### The Mental Status Questionnaire As an Assessment Tool

The MSQ was the principal assessment tool in this study because there were no other more definitive tools available for measuring orientation. The difficulty in measuring orientation is recognized. How can disorientation be measured when it is not clear what orientation is? Who can define orientation? Orientation is much more



complicated than the definition used for this study. A high score on the MSQ is not necessarily the same thing as being disoriented. Some examples of the problems inherent in assessing orientation and of using the MSQ in particular follow:

(1) cursory nature of the MSQ items. (a) The most commonly missed question was, "What is the day of the month?" That item was missed 68 out of 95 times (71%). The subjects made such comments as "I don't pay attention to the date" or "Who cares when you're in the hospital?" It might be difficult for anyone who does not follow a regular schedule or have easy access to the date to know the correct day of the month. These kinds of responses raise the question as to whether this item is a function of orientation or of the environment. Calendars and clocks that can signal passage of time are often absent in an acute or long term care setting. (b) The final two items on the MSQ relate to who is the present president and the president before him. On the first testing, thirteen subjects (68%) knew that President Carter was in office, but when it came to who preceded him, only six (31%) named President Ford. Seven subjects (37%) answered President Nixon and six (31%) did not respond. Once the subjects were reminded that the correct answer was President Ford, they remembered in later testings. Apparently the nature of President Nixon's term of office was much more memorable than the short time that President Ford served.

(2) Determination of the "correct" answer. The first two items on the MSQ are broad and "correctness" of responses can be interpreted differently. For example, many subjects could give the street address of both hospitals, while some gave only the name of the city in answer

to "Where is this place located?" Either answer was correct but constitutes a wide range of acceptable responses.

The least missed question was that of the subject's birthdate; only five times out of 95 was that item missed. Second least missed was the year of birth which was missed eleven times out of 95. This item is not a test of short term memory or reality orientation, but shows long term memory and awareness of self. Only one subject, a 61 year old male, went through all the testings without missing any questions and one woman (age 72) missed only the date the first time she was questioned. Two of the sample were so alert by the final two testings, that they were answering the questions before I got to asking; in other words, they had almost memorized the questions in the five administrations, over the six week testing period.

Two more examples arising from this study of the difficulty in assessing disorientation follow: One subject (age 70) who had a score of 6-7 at all testings, was being asked the questions for the fourth time. She was unable to answer where we were, or where the place was located, or the day of the month and when she was asked the month, she became increasingly agitated. She suddenly reached out behind her and grabbed a volunteer that was passing by and said, "Maybe you can tell this nice lady (indicating the investigator) what month is is -- she needs to know." Then she smiled sweetly. The same lady had her hands restrained with mittens at the first testing. She kept trying to pull them off, and when the investigator tried to convince her that she needed the restraints, she said, "There's nothing in there but cotton anyway." Even though, by definition of the MSQ,

she was moderately disoriented, she had the presence of mind in the first situation, to recognize her inability to answer and to react in a socially appropriate manner. In the second example, she was able to recognize the reality of the situation which was correct; there was nothing but cotton in the mitten restraints! This was not the purpose of the restraints, of course, but perhaps no one had told her the purpose.

How can a tool be developed that measures orientation? Wolanin (1977) is attempting to define confusion and disorientation as described by nurses, and perhaps that is the first step, to define the problem. It is beyond the scope of this thesis to undertake such a task, but perhaps the data that 95% of the time the birthdate was known is a place to begin. Orientation seems like such an individual thing, which may be why there is difficulty in developing a valid tool. The psycho-social aspects of each person need to be considered; the ability, as with the previous example, to react appropriately in a situation may need to be included. With elderly patients, various sensory changes that can affect orientation also need to be considered.

#### Other Suggestions

It is just as important to find out that something does not happen as to find out it does. This study was looking for disorientation to occur with relocation and at least with this sample of nineteen elderly, it did not happen. This raises other important questions: At what point does confusion begin? Why does confusion start within certain individuals? What is the critical difference from person to person?

The crisis of institutionalization is grave and yet many elderly survive the crisis without disorientation. Some of the major aspects of orientation are in the psycho-social realm of the individual and the medical model of health care does not always recognize or fill this need. We need an alternative approach in caring for our elderly and in treating and preventing disorientation.

Any of the mind-body approaches used in Holistic Health (Rappaport, 1975) might be used to help the elderly in institutions. The use of deep relaxation, massage, and meditation are of increasing importance to this type of individual. To relax the body with massage, is to relax the confused mind, so that inner peace and tranquility can be realized. To carry the massage further, nurses can use acupuncture and the entire system of Chinese Medicine (Mann, 1973) with the meridian systems of energy flow throughout the body. Deep massage on the critical areas of the body which relate to confusion would help the elderly person balance his own energy systems and start to heal his own confusion. Research on any of these methods is needed.

### Conclusions

The conclusions drawn from this study are then (1) that short wait time in the acute hospital seems to be beneficial to the orientation level of the elderly and (2) that wait time can be made less stressful by nursing interventions related to (2) the individual psycho-social needs of the patient, and (b) the matter of providing choice and control for the patient. (3) The most disoriented patients are the ones that critically need support in the transfer process, and

need highly skilled nursing intervention after their arrival at the long term care facility. (4) There is a need for alternative ways of caring for the disoriented elderly and (5) there is a need for a better tool to assess orientation.

### Further Research

The following are suggestions for further research:

(1) Replication of this study using a sample of middle-class elderly who are moving into a private setting.

(2) A more complete assessment of the patients, using the MSQ with self-care tools, and personality adjustment scales.

(3) A comparison of long wait versus short wait.

(4) An experimental study to test psychosocial approaches to maintain orientation.

(5) An experimental study to test the Holistic approaches such as Acupressure, and Homeopathy.

(6) A comparison of those going for rehabilitation and those going to long term settings, including the variable of hope.

(7) Tool development and testing which provides more validity than the MSQ.

(8) Longer term follow-up, four and six months after admission.

(9) Inclusion of the type of patient that was excluded from this study, CVA's, the blind and deaf, and aphasic, and the severely dis-oriented, perhaps using observational techniques for research.

### Summary of the Study

This study was designed to evaluate the effect of wait time on the orientation level of elderly clients who were being transferred from an acute hospital to a long term care facility. The study was based on the belief that many elderly arrive at long term care facilities in a disoriented condition, and that this disorientation is preventable with nursing planning and intervention. Tobin (1976) demonstrated that wait time was the critical factor for community elderly, so this was incorporated in the study.

The subjects were nineteen clients over sixty years of age, who were in an acute hospital awaiting transfer to a long term care setting. The subjects were tested five times; when they knew they would be going to a long term care setting, the day before they were to be transferred, the day after they transferred, and at two and four week intervals after transfer. The Mental Status Questionnaire, a test to determine mental function or disorientation, was the principal tool used. The data indicated that there was a slight trend towards increased disorientation after transfer, but it was not significant, and that the orientation level remained the same up to four weeks after transfer. There were only two subjects that waited longer than two weeks at the acute hospital so long wait time was not able to be measured.

The qualitative data obtained from open-ended interview questions showed that 89 percent of the sample had no choice in the decision about long term care. The multiple factors in the medical care system which relate to this finding were discussed. The subjects also had

many questions about the long term care facility.

The subjects that went to the admitting ward became more confused than those who went for rehabilitation. This was explained on the basis of their deteriorating physical condition, or possibly as a factor in the selection process. Those elderly that started out confused became more confused than those who started out being oriented.

Recommendations were made that: (1) once the decision about long term care has been made, nurses urge quick transfer to the long term care facility. (2) Nurses be available repeatedly for answering the multiple questions that the elderly patient has about the long term care facility. (3) Nurses provide choice and control for their elderly patients in any way that they can. (4) The MSQ be used as a predictive tool in planning care for the elderly who need critical nursing support throughout the process of transfer, and (5) Alternative methods, such as Chinese Healing and Acupressure, be used in caring for the elderly, both before and after transfer.

Suggestions for further research were included.

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#### Addendum

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## Appendix 1

Mental Status Questionnaire (MSQ)

1. Where are we now?	Orientation for place
2. Where is this place located?	Orientation for place
3. What is the day of the month?	Orientation for time
4. What month is it?	Orientation for time
5. What year is it?	Orientation for time
6. How old are you?	Memory-recent or remote (Orientation to self)*
7. When is your birthday?	Memory-recent or remote (Orientation to self)*
8. What year were you born?	Memory-recent or remote (Orientation to self)*
9. Who is the president of the US?	General information - memory
10. Who was president before him?	General information - memory

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Rating of MSQ

No response within 15 seconds indicates an error.

Number of Errors	Chronic Brain Syndrome Disorientation*
0-2	Absent - Mild
3-5	Mild - Moderate
6-8	Moderate - Severe
9-10	Severe

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From Kahn, R.L., Goldfarb, A., Pollack, M., and Peck, A. "Brief Objective Measure for the Determination of Mental Status in the Aged." Amer. J. of Psychiatry . 117:326, 1960.

\*(Investigator's Additions in Parenthesis)

## Appendix 2

Relative Frequencies of MSQ Scores --  
Each Testing Time

	MSQ Level (Raw)	N of Cases	Relative Frequency
Initial Testing	MSQ Score		
	0 (0-2)	10	52.6%
	1 (3-5)	5	26.3%
	2 (6-8)	4	21.1%
		<u>19</u>	<u>100.0%</u>
Day Before Transfer	0 (0-2)	13	68.4%
	1 (3-5)	2	10.5%
	2 (6-8)	4	21.1%
		<u>19</u>	<u>100.0%</u>
Day After Transfer	0 (0-2)	10	52.6%
	1 (3-5)	5	26.3%
	2 (6-8)	4	21.1%
		<u>19</u>	
Two Weeks After Transfer	0 (0-2)	11	27.9%
	1 (3-5)	5	26.3%
	2 (6-8)	2	10.5%
	3 (9,10)	1	5.3%
		<u>19</u>	
Four Weeks After Transfer	0 (0-2)	12	63.2%
	1 (3-5)	2	10.5%
	2 (6-8)	2	10.5%
	3 (9,10)	0	
	(Three missing)	<u>16</u>	
			15.8%

## Appendix 3

Protocol Number: 932004-01

## UNIVERSITY OF CALIFORNIA, SAN FRANCISCO

## Consent to Act as a Research Subject

Study of patients who are waiting to be transferred to Laguna Honda Hospital.

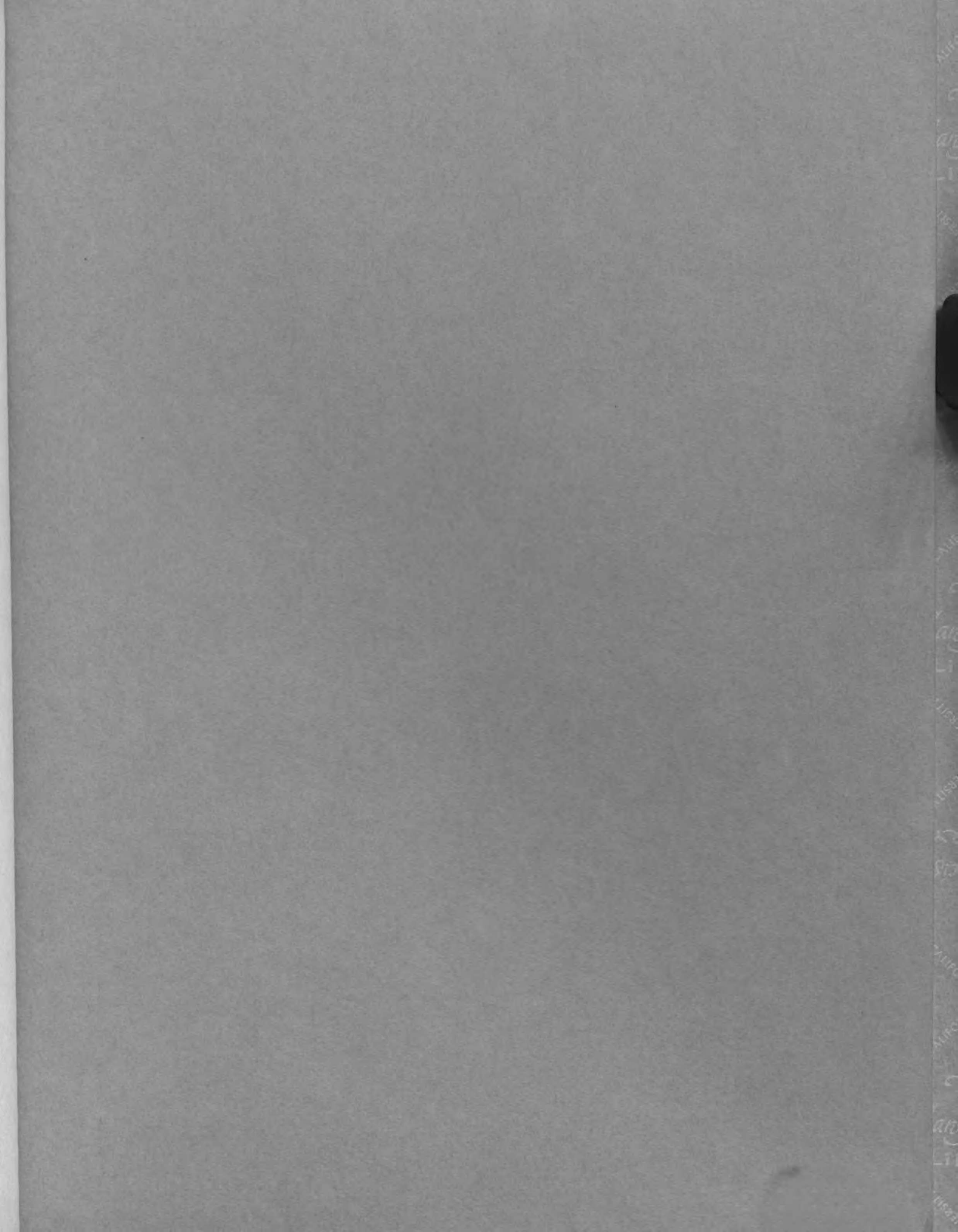
- 1) I hereby agree to have Robyn Paulson, R.N., a graduate student at U.C.S.F. School of Nursing, ask me a series of questions about my experience as a patient waiting to go to Laguna Honda.
- 2) These questions will be asked in my room every two weeks until I go to Laguna Honda, the day before I go, the day after I get to Laguna Honda and at 2 and 4 weeks after my arrival there.
- 3) The purpose of asking these questions is to determine the effect of waiting to go to Laguna Honda.
- 4) I understand that some of the questions might seem silly to me, but Robyn has explained that my name will not be put on the questionnaire and that my answers will be used only in analyzing the data. I also understand that my answers will in no way affect my care.
- 5) The study has been explained to me by Robyn Paulson and I can reach her if I have any questions by calling 751-8825.
- 6) I understand that I can refuse to participate in this study, and that I can withdraw from the study without jeopardy to my further care either at San Francisco General Hospital or at Laguna Honda Hospital.
- 7) I am not receiving any compensation for participation in this study. There is no direct benefit to me, although it may benefit others in the future.

DATE \_\_\_\_\_ SIGNATURE \_\_\_\_\_

## Attending Physician's Statement:

I understand that my patient \_\_\_\_\_ has agreed to be in this study of people while they are waiting to be moved to Laguna Honda. I am aware of the purpose, design, and plan of the study and agree that my patient may be involved in the study.

DATE \_\_\_\_\_ SIGNATURE \_\_\_\_\_








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