

MEASURING THE EFFECTIVENESS OF FAMILY INTERACTION
AFTER INSTRUCTION ON REALITY ORIENTATION

A THESIS
SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE OF MASTER OF SCIENCE
IN THE GRADUATE SCHOOL OF THE
TEXAS WOMAN'S UNIVERSITY

COLLEGE OF NURSING

BY
CHERYL M. STEUDTNER, BSN

DENTON, TEXAS

DECEMBER 1977

The Graduate School
Texas Woman's University
Denton, Texas

_____ August 11 _____ 19 77 _____

We hereby recommend that the _____ thesis _____ prepared under
our supervision by _____ Cheryl M. Steudtner _____
entitled _____ Measuring the Effectiveness of Family _____
_____ Interaction After Instruction on _____
_____ Reality Orientation _____

be accepted as fulfilling this part of the requirements for the Degree of
_____ Master of Science _____

Committee:

Alfreda Stephney
Chairman

Estelle J. Kuntz

Dolores M. Aiford

Accepted:

Phyllis Bridges
Dean of The Graduate School

ACKNOWLEDGEMENTS

Commit everything you do to the Lord
Trust him to help you do it and he will.

Psalm 37:5
Living Bible

TABLE OF CONTENTS

	Page
ACKNOWLEDGEMENTS	iii
TABLE OF CONTENTS	iv
LIST OF TABLES	vi
 Chapter	
I. INTRODUCTION	1
STATEMENT OF THE PROBLEM	2
PURPOSES	3
BACKGROUND AND SIGNIFICANCE	3
HYPOTHESES	8
DEFINITION OF TERMS	9
LIMITATIONS	10
DELIMITATIONS	11
ASSUMPTIONS	11
SUMMARY	12
II. REVIEW OF LITERATURE	14
Aging Population	14
Human Aging	15
Theories of Aging	16
Aging of the Human Brain	18
Physical Aging	19
Psychological Aging	27
Sociological Aging	32
Reality Orientation Therapy	35
Reality Orientation Technique	38
Family Involvement	47
Nurse Involvement	48
Summary	59

Chapter	Page
III. PROCEDURE FOR COLLECTION AND TREATMENT OF DATA	52
Setting	53
Population	53
Tools	55
Data Collection	59
Treatment of Data	61
Summary	62
IV. ANALYSIS OF DATA	64
Demographic Data	65
Data Analysis	67
Summary of Findings	72
Summary	74
V. SUMMARY, CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS	75
Summary	75
Conclusions	79
Implications	83
Recommendations for Further Study	85
APPENDIXES	86
REFERENCES CITED	108

LIST OF TABLES

Table		Page
1	Participation of the Geriatric Patients	65
2	Sex Distribution of the Two Samples	66
3	Age Distribution of the Two Samples	67
4	Response of the Significant Others	68
5	Difference in Need for Reality Orientation Test Scores Within the Comparison Group	69
6	Mean Test Scores Within Study Group	70
7	Comparison of Pre- and Post-Test Scores Between Groups	71
8	Comparison of Reality Orientation Pre Post-Test Scores	72

CHAPTER I

INTRODUCTION

Geriatric patients have a unique configuration of needs. Many of them undergo mental decline and behavioral changes due to an organic source such as arteriosclerosis or a psychological source such as sensory deprivation. These sequelae place unusual demands on the family and the nurse. The family is often called upon to assume responsibility for their aging relative who may no longer be accountable for his own actions or destiny. In such a case, the nurse must provide emotional support for the family as well as teach them to cope with their relative's behavior.

In response to the problem of mental deterioration, especially in the institutionalized geriatric patient, medical science has formulated a treatment regime called reality orientation that has proved to be successful in slowing down or even reversing the progress of mental retrogression. Utilizing a twenty-four hour milieu, the reality orientation program relies heavily on the participation of the nurse and the nursing staff. By implementing the measures called for by the therapy, the nurse is significantly involved in the treatment of the geriatric

patient who is exhibiting abnormal behavior patterns as a result of mental deterioration.

The institution may try to cope with the difficult behavior patterns by placing the patient in the reality orientation classes conducted in the nursing home. The institution, however, usually does not interact with the family of the confused patient. Family members, neither have an idea that their relative is in reality orientation classes nor do they have any information about how they might implement reality orientation techniques. Often lacking instruction, the family is unable to become involved with the patient in working through this important problem area. Though the nurse may relate to the family in other ways, the relationship usually ignores this area of information-giving and family teaching. If the nurse were to become more involved with the family members and teach them to work with the aged patient, she might well serve as a catalyst for more effective family involvement and for ultimate patient improvement.

STATEMENT OF THE PROBLEM

The problem for this study was to determine if interaction with significant others who had been instructed in the methodology of reality orientation affected the functional level of geriatric patients.

PURPOSES

The purposes of this study were to:

1. Identify the functional level of geriatric patients prior to instruction of significant others in reality orientation
2. Determine the effectiveness of reality orientation instruction sessions on significant others
3. Identify the functional level of geriatric patients whose significant others had been instructed in reality orientation therapy three months following the initial evaluation period
4. Identify the functional level of geriatric patients whose significant others had not been instructed in reality orientation therapy three months following the initial evaluation period
5. Compare the functional levels of the two groups of geriatric patients

BACKGROUND AND SIGNIFICANCE

Recognizing that psychopathology advances with age in the United States, there are 236.1 new cases with psychopathology per 100,000 persons over sixty-five. These, along with the functional mental disorders of the aged, give rise to a large portion of the geriatric population

who exhibit confused or disoriented behavior (Butler 1971). Weinberg (1970) has stated, "Aging really begins when adaptation begins to decline" (p. 116). He continues with the observations that an aging patient will exhibit the symptoms of exclusion of stimuli, conservation of energy, and repression. This results in behavioral changes which are generally that of a patient withdrawing into himself, breaking off relationships with others, and generally reducing his awareness and concern for even the simple things; consequently, even "potentially usable parts of his brain soon cease to function" (Stephens 1969, p. 1).

Ornstein (1970) has stated that remotivation is the answer to the confused, institutionalized, aged person. Expanding upon this thought, he states, "Remotivation seems to meet the aged resident's desperate need to be known, loved . . . seems to reduce anxiety and depression" (p. 63). Wallen (1970) concurs with Ornstein and adds that the main objective of motivation therapy is the expansion of awareness in the patient with a "focus on the present" (p. 1007).

In actuality, reality orientation is an early phase of rehabilitation of the elderly or confused patient. Initiated in 1958 in Topeka, Kansas by James Folsom, it was further refined at the Veterans Administration Hospital

in Tuscaloosa, Alabama. Attacking the mental deterioration of an aged patient in two ways, reality orientation continually stimulates the patient by repetitive orientation and places him in a group wherein he meets and competes with other patients. This process forces him out of his isolation and into his environment. It then hopefully reawakens unused neurological pathways and stimulates the patient to develop new ways of functioning to compensate for organic brain damage no matter what its etiology (Stephens 1969).

The actual techniques utilized in the Reality Orientation Therapy are based on the premise that the therapy is not so much a specific activity, but rather a social interaction that helps bring a patient closer to reality (Stephens 1969). The key ingredient for success appears to be the involvement of the staff and the consistency of the approach used by all (Folsom 1966; Lehman 1974).

There are two formats for the actualization of reality orientation which can be used separately or, more commonly, together. In the first format, there is a structured classroom session which lasts fifteen to twenty minutes each day. During the session, the aide-instructors drill the four to five patient-students on such basic

information as personal name, present date, location, weather, and time. Visual props such as large clocks and calendars are utilized. The second format is a twenty-four hour milieu in which all staff contacts with the patients are punctuated with the 'reminder' facts that have been previously mentioned (Gubrium 1975). Within both formats Lehman (1974) stresses consistency in the areas of attitude and reinforcement by the therapists.

Though the staff bears the heaviest burden in the initiation and application of reality orientation for the patient, the role of the family must not be overlooked. Indeed the family-patient relationship is an asset that must not be forgotten. Most families voluntarily assist their elderly members out of a sense of ethical responsibility as well as genuine affection (Butler and Lewis 1973).

Many professionals carrying out the therapy of reality orientation claim the necessity of family participation. Scarbrough (1974) states that the patient's family must be helped to know "they are important members with a particular role to play" (p. 12). She adds that in the twenty-four hour milieu, family members and all outside contacts must be included in the participation of reality orientation application. Finally, "Guide For Reality Orientation Implementation" (Nursing Service 1970) states,

"the family should be aware of and understand the basic principles of reality orientation in order to help the patient" (p. 3).

Nursing leader, Margaret Pohl (1968) has stated, "People must be helped through education to assume responsibility for their own health and the health of family members who are unable to do for themselves" (p. 3).

Miller (1969) pointed out that the family as a unit must be considered in the comprehensive care of the chronically ill patient and that family interaction cannot be ignored in planning patient therapy.

Realizing both the need for family involvement in the implementation of reality orientation and the need for providing the family with information, the nurse can help the family. She can evaluate the strengths and resources of the family and teach them procedures they can implement (Gospard 1970). Tangari (1974), one of the few nursing professionals to comment on the need for family teaching, found families of psychiatric patients able to cope with their feelings of helplessness and guilt after he had worked with them in family groups. The family members even expressed gratitude "for the opportunity to be involved in the patient's treatment" (p. 793).

In summary, mental deterioration of the aged is probably deterred significantly by the implementation of Reality Orientation Therapy. This therapy relies on staff involvement with a consistency of approach within a twenty-four hour milieu. The therapy also indicates the necessity of family participation. Family members have an interest in their institutionalized relatives; however, they often feel helpless and are frustrated by their lack of knowledge of how to help. The nurse has a unique opportunity to serve as teacher-facilitator to both patient and family in a situation where mental deterioration is present.

HYPOTHESES

To carry out the purposes of this study, the following null hypotheses were tested:

1. There will be no significant difference in the functional level of patients whose significant others had been instructed in Reality Orientation Therapy as compared to geriatric patients whose significant others had not been instructed in Reality Orientation Therapy

2. At the end of three months, the functional level of geriatric patients whose significant others have been instructed in the methodology of reality orientation will not show progress

3. At the end of three months, the functional level of geriatric patients who significant others have not been instructed in the methodology of reality orientation will not show progress

DEFINITION OF TERMS

The following definitions were identified for this study:

1. Functional level -- the level at which the geriatric patient is performing in terms of orientation, memory, and socialization as measured by the Test of the Need For Reality Orientation

2. Significant others -- any friend, guardian, or relative who regularly visits the geriatric patient

3. Progress -- the maintenance or positive advancement of the score of The Test of the Need For Reality Orientation

4. Reality Orientation Therapy -- a technique to rehabilitate elderly and brain damaged patients with a moderate to severe degree of disorientation (Stephens 1969)

5. Attitude Therapy -- a form of behavior modification which utilizes five major attitudes in dealing with elderly patients

6. Nursing home -- that residential facility exclusively oriented towards the geriatric person, that provides one or more central services that meet some particular need of the geriatric person

7. The Test of the Need For Reality Orientation -- test to measure the amount of memory loss, confusion, and time-place-person disorientation of individuals

8. Interaction -- the verbal and non-verbal actions and reactions which take place between individuals

9. Psychopathology -- the physically or psychologically based changes which take place in a human being that result in changes in behavior that are considered deviations from normal. Examples of such behavior might include confusion, disorientation, or withdrawal

LIMITATIONS

The following limitations were identified for this study:

1. The amount of utilization of the concepts of reality orientation by significant others will vary

2. The personal illness of any aged geriatric patient and the effect of that personal illness on the patient's progress cannot be controlled

3. The learning ability of the significant others may vary

4. The amount of time spent by the significant others with the geriatric patient that exceeds the minimal requirements of this study cannot be controlled

5. The influence of the cultural background of the major portion of the population cannot be controlled

DELIMITATIONS

The following delimitations were included in this study:

1. The significant others must be able to understand, read, write, and speak English

2. The significant others of the study group must attend the instruction session on reality orientation

3. The significant others of the study group must visit the geriatric patient a minimum of one hour per week for three months, not missing more than two weeks of visiting

4. The geriatric patients in the population must be participating in the reality orientation program of the nursing home

ASSUMPTIONS

For the purpose of this study, the following assumptions applied:

1. The more knowledge a person has, the greater is his potential to assist and participate in his care or the care of others
2. Human beings have a potential for learning
3. Aged persons have a right to live to the fullness of their potential

SUMMARY

A significant portion of the aging population exhibits behavioral changes related to mental deterioration. The confused or disoriented geriatric patient in an institution has often been helped through Reality Orientation Therapy. This type of patient participates in the therapy's daily classroom sessions as well as the twenty-four hour milieu carried on by the nurses and the staff within the institution. His family is often unaware of the therapy and does not become involved with this aspect of their relative's care. The nurse has the potential to augment family involvement as well as patient therapy by asserting her role as family teacher. This study was conducted to determine if interaction with relatives who had been instructed in the methodology of reality orientation affected the functional level of geriatric patients.

In the ensuing Chapter II there will be a review of literature including the growth of the aging population, theories of aging, the normal and abnormal changes of the aging brain, Reality Orientation Therapy, and the nurse's role in family teaching. There will be a discussion of the procedure for collection of the treatment of data in Chapter III. Chapter IV presents an analysis with an interpretation of the data. Finally, in Chapter V, there will be a summary, recommendations for subsequent research, conclusions, and implications of this study.

CHAPTER II

REVIEW OF LITERATURE

Those health professionals involved with the care of the aging client must first have a thorough understanding of the normal process of aging. They must also be aware of the effects of stress and disease on the geriatric patient. In addition, when providing care for the demented or withdrawn aged, an understanding of the process of aging in the brain is vital. Chapter II presents a discussion of the literature pertinent to the aging population of the United States, human aging, the physical, psychological, and sociological aging of the human brain, Reality Orientation Therapy, and implications of family and nurse involvement in the care of the geriatric patient.

Aging Population

The United States census of 1900 indicated that 4.1 percent of the population of the country at that time was sixty-five years or older; the last national census of 1970 indicated that over 9.4 percent of the population in this country was sixty-five years or older. The 1970 census disclosed that in the 1960s, the over sixty-five population had increased faster than the under sixty-five

population (Rosenow and Long 1972). In numbers, the geriatric population now consists of over twenty million people (Brotman 1971). One-half of these twenty million people are under seventy-three years of age, while 1.3 million are eighty-five years or older (Lowry 1975). Two out of three of these gerons own their own home and only one-fourth of them live alone or with people other than their own family. Five percent or one in twenty members of the geriatric population live in institutions (Butler and Lewis 1973). Projections for the population of the United States indicate an over sixty-five population of twenty-three million by 1980, twenty-five million by 1985, and thirty-one million by the year 2000 (U.S. Department of Health, Education, and Welfare I 1974). The census figures indicate a broadened base of the aging population.

Human Aging

Contrary to the prevalent myth in United States Society that "all old people are senile" (Butler and Lewis 1973), aging cannot always be equated with senility. Used excessively by both professionals and lay people to describe the behavior and overall condition of the aged, senility has been called a waste basket term that needs to be eradicated from the medical vocabulary (Zaman 1971; Burnside 1976). Polansky (1973) proposed that the collection of

behaviors termed senile are,

. . . not a natural concomitant of age but rather stems from a combination of specific pathologic conditions of the brain, environmental demands that exceed the individual's ability to cope successfully, or both (p. 248).

In view of this, the aging human being must be studied from two perspectives. First he must be viewed as a person experiencing the phenomenon of primary aging which is a time dependent, normal biological process uncomplicated by stress, trauma, or disease. Second, he must be viewed as a person experiencing the phenomenon of secondary aging which is a pathological process generating from trauma, loss, and disease (Verwoerd 1976; Busse 1969).

Theories of Aging

In order to understand what transpires in the aging brain, the process of aging itself must be reviewed. A multitude of theories has been proposed to describe this baffling phenomenon, yet not one has both explained the basic nature of aging and been accepted by academia (Zetzel 1965; Finch 1976). The following are a few of the biological theories of aging presented briefly. These theories deal only with the factor of aging and do not take into account alterations found in the aged that are caused by disease or environmental factors.

Finch (1976) and Comfort (1956) propose that aging is a direct result of a loss of reserve capacities of non-multiplying cells. They believe that because the functional units of the cell are depleted of energy, the processes of energy usage, tissue repair, and elimination are hampered. Waste products that do accumulate are then thought to poison and kill the cell. Thus, they believe that the accumulation of waste products within the cell ultimately causes tissues to age. They call this the Exhaustion-Accumulation Theory.

The Cross Linkage or Eversion Theory (Verwordt 1976; Busse 1969) stipulates that aging is a direct result of the structural changes within the protein and collagen molecule. The cross linkage between the polypeptide bonds of this material is thought to interfere with the flow of nutritional-respiratory material and excretion. This interference results in functional deterioration of the cell which ultimately leads to aging.

Sinex (1975) has presented the Stochastic or Mutation Theory of aging. According to this theory, aging is a direct result of random mutations in the chromosomes, specifically the DNA. This mutation results in the formation of abnormal RNA. RNA consequently transcribes faulty formation of the essential enzymes that are necessary for

cellular function. The resulting cellular misfunction is the essence of aging.

Finally, the Autoimmune Theory is suggested by Kohn (1971). In this theory, aging is presented as a direct result of the accumulation of mutant or nonsense protein developed from transcription errors. The body develops immune reactions to this nonsense protein. The result of this reaction is aging.

Though other theories exist, the aforementioned theories seem to appear most frequently in the literature. It must be emphasized again that even though aging is an inevitable and irreversible process that occurs in all systems which undergo growth and development, the process itself has thus far not been completely understood (Kohn 1971).

Aging of the Human Brain

Besides its biological component, the brain is seen to be the seat of an individual's identity as well as his ability to cope with the world (Spencer and Dorr 1975). Conceptually, the brain can be divided into three realms. These three realms are the biological in terms of physical structure and physiological function; the psychological in terms of unique adjustment or adaptative action; and,

the sociological, in terms of interpersonal relationships, roles, or social performance. These three entities all interrelate and are interdependent. Behavior is the common denominator for all three factors since it can be altered by aging or disease in any one or all three components (Harrison 1971; Birren 1968). First, the normal aging and behavior of each component of the brain will be discussed here. Following this, the abnormal alterations and behaviors most frequently seen in each component will be presented.

Physical Aging

Because the brain, and indeed the entire central nervous system, is composed of more than twenty million neurons that are post mitotic, normal aging of the brain can be considered on the basis of structural changes of these stable neurons (Kohn 1971; Verwoerd 1976). Upon gross examination, the brain weight is seen to decrease on an average of 230 grams from age twenty to age eighty (Karp 1975). An atrophy of the senescent brain's gyri, a concomitant widening of the sulci, and a dilation of the ventricles is also seen (Karp 1975). Upon microscopic examination glial cells are seen to increase (Smith and Sethi 1975) while cortical neurons are seen to decrease

in number, especially in the superior temporal and post central gyrus (Kohn 1971). The remaining cells of the aging brain are generally more widely spaced than those of the young brain (Andrew 1971). Frequently there is an atrophy and shrinkage of the neuronal cells (Bourne 1960) as well as an accumulation or preservation of lipofusion due to a disturbance in lysosomal metabolism (Vogel 1969). Characteristically, the lipofusion deposits, a landmark of the aging brain, increase in those cells of the cerebral cortex, the anterior horn cells of the spinal cord, and the olivary and dentate nuclei. The spinal cord evidences loss with a significant decrease of size in cells in the nerve fibers in the dorsal column as well as actual number of anterior horn cells. Histologically, small numbers of senile plaques, Alzheimer's neurofibrillary changes, and granulovacular degeneration have also been found in normally aging neurons (Karp 1975).

Because the brain serves as a coordinating center for sensory input, the aging which occurs in the peripheral nerves affects the brain's regulating and synchronizing capabilities. Bourne (1960) reported that the main structural changes of the peripheral nerves were fatty degeneration in the sensory ganglion, accumulation of pigment in the cells, and granular fragmentation and splitting of

nerve fibers. Smith and Sethi (1975) also report changes in peripheral nerves' axons, myelination, and Schwann's cells. Such structural changes in peripheral nerves probably account for the age related 15 percent decrease in conduction velocity of nerves between ages thirty and ninety (Kohn 1971). Libow (1973) has stated that although cerebral blood flow must be severely diminished in order to cause abnormal problems, his experiments found primary age change in the central nervous system to be that of a decrease of cerebral blood flow followed by a decrease in metabolic function which was accompanied by a decline in mental abilities. Though some of the changes in the brain have been delineated, not all senescent brains display the same changes. No single metabolic alteration can be found to be the cause of the structural changes that are noted; and, therefore, age itself is named as the culprit (Vogel 1969).

Behavioral changes that are a result of a specific normal alteration in the physical component of the aging brain have not been clearly documented. More often than not, only the behavioral deviations are reported. Reitan (1967) and Hodkinson (1975) have stated that the typical senescent changes of decline in intellectual efficiency and in inability to comprehend may be related to deficits

in the brain's ability to do immediate problem solving. Shock (1960) stated that in the aging brain, there is an impairment in the ability to retain and comprehend the interrelationships of a quantity of data. This impairment becomes pronounced during times of peak demand. Wang (1969) correlated the concomitant findings of impairment of intellectual function or adaptive capacity with the findings of increased cerebral atrophy. Libow (1973) and Botwinick (1973) both reported results from cross sectional studies that indicated an increase in the verbal skills of the elderly whereas there was a decline in their psychomotor performance. Harrison (1971) found that speed and reaction time on any test given to the elderly decreased but ability to learn did not necessarily change.

Because behavior is so related to environmental information obtained and relayed by the special senses, inappropriate actions of seeming apathy displayed by the geriatric person is thought by some to be a result of age related impairment of the special senses rather than the brain itself (U.S. Department of Health, Education, and Welfare Volume II, III 1974). Others, however, attribute such behavior to a delay in central reaction time that demands a lengthier period for recognition and response to stimuli (Smith and Sethi 1975). Finally, Kent (1976)

specifically associated frequently found loss of short term memory and reasoning to a decrease in the number and size of dendrite spines in the neuron.

The normal behavioral changes due to the aging process of the brain can be summarily stated as a result of the loss of neurons as well as changes in the quality of performance of the remaining neurons (Strehler 1971). The remaining neurons function below acceptable levels of performance during periods of stress probably because age erodes the reserve potential of the central nervous system (Smith and Sethi 1975).

Primary structural abnormalities occurring in the aging brain seem to appear as extensions and accentuations of many of the findings apparent in normal brain aging. Cortical atrophy occurs with those disease states (such as hypertensive encephalopathy) that alter the brain's arterial and capillary network. The main offense to the brain inflicted by cerebral vascular occlusive disorders (such as atherosclerosis) appears to be the interruption of the blood flow in the large vessels which carry the necessary metabolites to the neuronal tissue. Where there is an interruption of nutrients, ischemic necrosis, and multifocal infarcts of post mitotic brain cells occur.

Neither structure nor function of these insulted cells is ever regained (Vogel 1969; Tomlinson 1970).

As in normal aging, the degenerating brain exhibits neurofibrillary degeneration, senile plaques, and granulovacuolar degeneration in cerebral gray matter. These findings are considered abnormal, however, because they appear earlier, more frequently, and in higher concentrations within smaller, restricted brain areas. Though it is not postulated as the primary cause of the condition, the presence of decreased cerebral blood flow is found in all of the brain dementias (Rivera and Meyer 1975). In addition to the structural findings, progressive alterations in the intracellular metabolism of brain cells is also apparent in the dementias (Vogel 1969).

The brain may also be affected structurally and physiologically by other primary insults such as trauma, infection, decreased nutrition, neoplasms, metabolic deficiencies, chemical toxins, and nerve tissue diseases such as multiple sclerosis. Brain abnormalities also appear secondarily in response to systemic diseases such as uremia, diabetes, and cardiovascular or pulmonary diseases. The specific type of damage occurring is dependent upon the particular causative agent or circumstance (Verwoerd 1976).

Even though the abnormalities of brain structure are established morphologically at death, there is presently no morphological criteria that differentiates pathological atrophic processes from normal brain aging. It is especially perplexing because the structural abnormalities and normalities found at autopsy do not always correlate with the mental state of the patient as reported prior to death (Lauter and Meyer 1968). More research must be done to substantiate physical findings with clinical states as there is not a good correlation between the physical findings and the chronological age or the neurological state (Smith and Sethi 1975).

Abnormal behaviors are seen as a result of primary brain dysfunctions. The clinical disorders associated with primary brain dysfunction are collectively called dementia or more recently, organic brain syndrome (Eaton and Peterson 1969; Rivera and Meyer 1975). Two and one-half percent of the elderly population, or 80 percent of the institutionalized geriatric population receive this diagnosis (Verwoerd 1976). Generally such diffuse structural brain damage in the cortex of the cerebrum will result in impairment to that group of cognitive functions which rely on the activity being done by the involved brain tissue. Disorientation, instability or shallowing affect, memory loss, and

impairment of function and judgment are the primary behavioral characteristics of this syndrome (Wang 1969; Burnside 1976). Peripheral disturbances such as abnormal reflexes, dysphasic and apraxic syndromes, neurogenic bladder dysfunction, and gait problems can also result from the dysfunction of cortical integration areas and connection systems that can occur with organic brain syndrome (Riveria and Meyer 1975). The severity of the basic pattern of symptoms varies with the severity of the tissue damage or dysfunction as well as the individual's predispositions and premorbid personality (Eaton and Peterson 1969).

Neurotic and psychotic behavior evolves in a person who has organic brain syndrome in accordance with the severity of the mental decline that insidiously develops. Because there is interference with the neuronal functioning of the brain, psychological disequilibrium results (Frances and Munjas 1975). Initially concentration and motivation may decline; later short term memory often disappears and confabulation is used as a defense to cover up for the loss. Perception of the short-term memory loss by the patient precipitates an emotional reaction on his part; he frequently goes into a depressive or an anxiety state as a consequence of his awareness of his mental deterioration (Glickman and Friedman 1976).

Disruption of thought processes of the patient continues until confusion and illogical thought become grossly apparent. Apathy in personal hygiene, aggressive and antisocial behavior, and even incontinence become part of the overall actions of the patient with organic brain syndrome. Regression to childlike selfish behavior is not uncommon as the geriatric person begins to display an excessive concern with self (Rivera and Meyer 1975).

The clinical picture is further complicated as there are as many variations in behavior as there are variations in personality (Wang 1972). Also catalyzing the eccentricity displayed by the person are the many environmental influences which mold or change the behavior caused by any organic structural changes (Libow 1973). Some of the behaviors are predictable and classic; however, each individual displays the effects of this syndrome in his own unique way (Wang 1972).

Psychological Aging

Though an individual's ability to adapt during any one period of his life is dependent upon the interplay of the biological, social, and psychological factors influencing him at that particular moment, the brain, as the organ of adaptation, becomes the prime affector for success or failure (Busse and Pfeiffer 1969). Erickson (1972) is one

of the few psychologists to formulate a theory of ego development that incorporates the aging adult. Viewing life as a series of developmental stages wherein the ego meets and masters various life crises, he classifies the final stages of personality development as one of ego integrity versus ego despair. Erickson presupposes passage through all previous life phases, which have their own unique psychological crises to overcome, to this final stage. Fatalistically, he anticipates the individual's gracious acceptance of all that happened and all of the significant people in his previous life phases as inevitable, meaningful, and appropriate (Verwoerd 1976; Botwinick 1973). Death must be accepted as a non-agonizing final end or a sense of despair will dominate the last phase of personality development. To not accept death is an indication of a lack or loss of accrued ego development (Erickson 1972).

Dibner (1975) theorizes that psychological changes in the old are results of a basic change in the motivational forces. The senescent personality is basically motivated by a preference for simplicity rather than the preference for complexity which typifies the younger person. Preference for the simplistic actions allows the individual to compensate for lowered energy levels and reserves, decreased sensory acuity and integration speed, and lack of confidence

in faltering body systems. Peck (1972) viewed old age as that period of time wherein the ego had to work through three major problems of ego differentiation versus work-role preoccupation, body transcendence versus body preoccupation and ego transcendence versus ego preoccupation. It would appear from the literature that not one theory takes into account all of the factors of the aging personality (Botwinick 1973).

Regardless of their etiology, the behavioral responses of the aging personality can be globally summed up as adaptive responses of a less energetic, physically inefficient although more experienced organism, coping with a world continuing with its demands and stimulus characteristics (Dibner 1975). Loss in every aspect of life seems to be the predominate theme and, therefore, most heavy stress factor with which the older personality has to cope. Whether it is intrinsic, such as disease or general physical slowdown, or extrinsic, such as widowhood or forced retirement, the inevitable losses become increasingly more numerous and more visible (Butler and Lewis 1973).

Common emotional reactions expressed by the aging personality in response to the stress are grief, guilt, loneliness, depression, anxiety, sense of impotence and

helplessness, and ultimately rage. The adaptive techniques or defense mechanisms most characteristic of the older person are denial, projection, fixation, regression, displacement, counterphobia, idealization, and rigidity (Butler and Lewis 1973). The defenses preferentially used by the aging personality pattern themselves after those used in early infancy indicating primitive, but less energy consuming defenses (Busse and Pfeiffer 1969). In reaction to the amount of stress in his present circumstances, the older person may even choose not to cope with the present but rather become overly absorbed with memories of that past life that begins to assume more and more value (Human 1973). He may also conserve his energy by becoming introverted, conservative, and satisfied with the status quo (Dibner 1975).

The person's ability to cope with stress depends upon his ego strength, his repertoire of coping mechanisms, his state of health, and his supportive or non-supportive environment. Healthful adaptive coping techniques will re-establish the personality to the state of equilibrium that was disturbed by the stress (Verwoerd 1976). In the healthy person, the integrated personality will not change with stress but rather become more increasingly consistent

with the person's underlying personality that has been present since his youth (Neugarten, Havighurst and Tobin 1972).

In geriatrics, abnormal psychological behavior is usually a result of maladaptive defense mechanisms that aggravate the mental anguish, exhaust the resources, and weaken the resistance of the individual (Verwoerd 1976). Oberleder (1969) has indicated that old age evidences more pronounced abnormal behavior because old age evokes more anxiety producing situations that have few or non-existent opportunities to reduce or cope with the anxiety. Actual mental illness may occur as a result of these patterns of behavior which impede the individual's communication and adaptation to his environment (Folsom 1967). When all else fails, the individual may simply withdraw from his environment in order to conserve his energy, eliminate the anxiety from his consciousness, or to control the situation (Verwoerd 1976).

The functional disorders common to the geriatric personality are depression (often apparent as organic confusion or somatic complaints), hypochondriasis (especially about bowel function, the heart or malignancy), psychosomatic complaints, paranoia, and anxiety reactions (Butler 1971). Depression is by far the most common neurosis found in the

geriatric population and it seems to stem from a decreased self regard (Butler and Lewis 1973). The categories of neuroses found most frequently in the geriatric person include anxiety, hysterical, obsessive-compulsive, depressive, and hypochondriacal. The psychoses found most frequently include involutional melancholia, depressive reaction, and paranoia. The behaviors expressed in these disorders are those found in all affected persons whose coping mechanisms break down regardless of age (Busse and Pfeiffer 1969; Butler and Lewis 1973).

Sociological Aging

Superimposed upon the physical and psychological aging of the geriatric mind is the sociological aging or the conditioned response of the brain to its social environment. This response not only implies the relationships, roles, and social performance of the individual to his environment, but also the expectations of the social environment upon the individual (Breen 1960).

Cummings and Henry (1961), as a result of their classic study of adult life in Kansas City, postulated the Theory of Disengagement. Their viewpoint of social aging presented the mutual withdrawal of the individual and his society from one another and particularly emphasized the

individual's participation in this withdrawal. The older adult naturally and voluntarily withdrew from the persons and objects in his environment as a reflection of his inner psychological needs. During this natural process of decreased emotional investment in his environment, the older person reached a new equilibrium manifested by altered social interactions and a psychological distance with others. Lowenthal and Boler (1965) in their studies, questioned the voluntary aspect of the individual's withdrawal. They felt that more frequently the geriatric individual involuntarily withdrew from society because of social deprivation caused by such factors as loss of a mate or physical disability.

In contrast to the Disengagement Theory, several sociologists postulate an alternative activity theory to describe the social involvement of the aged. This theory proposes that the older individual needs and maintains a fairly level amount of social activity and engagements that are generally influenced by past life styles and present finances (Palmore 1969). Studies have been done by Maddox and Eisdorfer (1962) that found in 70 percent of their subjects, social activity and morale were either both high or both low; they felt there was a positive relationship between the two factors. Maintaining and developing adequate levels of mental, physical, and social activity is a

necessity for successful aging according to the activists (Palmore 1969).

Social isolation with its pursuant loneliness can be part and parcel of late life. Contributing factors to this isolation include death of a mate, withdrawal of children from the home, and physical discomforts and disease with all of their social ramifications. A major contributor to the decreased social contact is the geriatric person's separation from his work role and all of the social relationships inherent to this role (Botwinick 1973). The value a person places on himself is derived from the social interaction between those in his environment and himself (Lee 1975). Unless he is able to substitute new activities for those he is forced by personal choice or social mandate to give up, the geriatric individual's social self may suffer immeasurably (Havighurst, Neugarten, Tobin 1972).

Old age carries with it a profound number of rapid and intense social changes that can dynamically influence the older person's subjective experience, behavior and adaptation. If he is not able to substitute new activities for lost social interactions, if he has difficulty in meeting the responsibilities of new social roles, the geriatric person may become frustrated and sink into hopeless depression. If he has too few opportunities to restore his

shattered self concept, the geriatric person may resort to a new less demanding role of dependence. Thus, in an effort to compensate for the inability to cope with the changing social environment and role demands, the older individual may be content to assume the sick role, making dependence on others his way of life (Ness 1973). When the stress of aging affects the physical, psychological, and sociological aspects of the aging human being such that he is no longer able to cope or react appropriately, supportive therapy must be obtained.

Reality Orientation Therapy

Reality Orientation Therapy is an early phase of rehabilitation for the geriatric patient. It was designed by Dr. James C. Folsom in response to a request for a pilot study for the rehabilitation of geriatric mental patients. Initially the study was undertaken to utilize the maximum treatment potential for all the employees in a fifty-bed geriatric patient unit at the Veterans Hospital in Topeka, Kansas. The principle value of the program was thought to lie in its acknowledgement of the nursing assistant as a part of the treatment group. The primary result of this new status for the ward personnel was their deeper involvement and commitment to the overall planning of patient

activities. Patients responded to the nursing assistants' personal attention by reinvolving themselves with their environment and with other human beings.

The second phase of Reality Orientation Therapy evolved in 1960 at the Mental Health Institute in Mount Pleasant, Iowa. Again under the direction of Dr. Folsom, a program was initiated in a twenty-five bed geriatric unit. The focus was to utilize available personnel to the maximum extent. Here again the nursing assistants carried out the major portion of the program, only this time they incorporated the various techniques of attitude therapy. Working with each patient on an individual basis, the staff carefully oriented each patient to his ward and tried to help him give up his illness as well as expand his boundaries of wellness. After six months the staff established some basic guidelines which in essence prescribed staff behavior in responding to the patient as well as controlling environment.

The final developmental phase of reality orientation treatment began in 1965 at the Veterans Administration Hospital in Tuscaloosa, Alabama. The primary focus on this program for the psychiatric, medically infirm was to provide treatment twenty-four hours a day. Orientation to reality was a prescribed treatment that dealt with the

most basic knowledge for a patient; that is, who he was, where he was, and where he was from. As the patient assimilated basic information, he was given more information. Around the clock reorientation was augmented by daily, one-hour classes. Continuity for the patient was established through rigid schedules and the utilization of the same personnel. In addition, the "treatment teams" tried to employ a specific, constant attitude toward each patient both in class and on the ward. Of the patients treated by this regime, the success rate was high enough that the treatment team approach along with the constant efforts to restore contact with current reality were given as the main factors in successful rehabilitation of the geriatric patients (Folsom 1968).

The Veterans Administration Hospital at Tuscaloosa has become the home base for the Reality Orientation Training Program. Not only are workshops scheduled regularly at Tuscaloosa, but there are also programs scheduled regionally across the country for the purpose of training health workers in the techniques of the Reality Orientation Therapy. The philosophy of the training program directs that any professional or any non-professional who cares for confused and disoriented people can benefit from learning how to implement the techniques of this therapy. The center has

an official publication, THE ROPE, and provides audiovisual training aids as well as manuals and directives for reality orientation implementation (Veterans Administration Hospital 1975).

Reality Orientation Technique

The actual reality orientation program is based on the philosophy that no one person is ever hopelessly mentally ill and that each patient should make the maximum use of his assets. The task of the therapy is to reverse the backward slide of the patient by daily assisting him to utilize that part of his cerebrum that remains functionally capable (Nursing Service 1970). A beginning phase of rehabilitation, the program is geared to help those persons of any age who have, from whatever cause, a "moderate to severe degree of memory loss, confusion, and time-place-person disorientation" (Nursing Service 1974, p. 1). The predominant feeling is that this rehabilitation is most effective when started as soon as the clinical symptoms are manifested by the patient and before his self confidence and self dignity are drastically injured (Nursing Service 1974).

Though the program consists of two phases, a twenty-four hour reality orientation and an intensive classroom reality orientation, the actual methodology implemented is a fairly simple technique (Nursing Service 1974). It is

designed to be used by anyone who associates with the confused person during his waking hours (Barnes, Sack, and Shore 1973). The key to the approach to any patient is consistency. This consistency of treatment is affected by the treatment team which is composed of all personnel, friends, and family who come in contact with the patient (Phillips 1973).

One of the ways that the team maintains consistency of communication is to utilize Attitude Therapy (Nursing Service 1974). This environmental therapy is used as an adjunct to reality orientation and helps to create an atmosphere amenable to each patient's needs (Folsom 1967). It is a type of behavior modification wherein the patient can perceive those behavioral areas that need to change and be helped by the staff to do so (Veterans Administration Hospital 1972). There are five attitudes that are prescribed for five major behavior patterns. These are:

- 1) active friendliness for the withdrawn or apathetic
- 2) passive friendliness for the suspicious
- 3) kind firmness for the depressed
- 4) no demand for the out of control
- 5) matter-of-fact for the manipulative, seductive, or other approaching more normal behavior
(Veterans Administration Hospital 1972, p. 1).

Though active friendliness is the safest approach to use, one of the five attitudes is specifically prescribed for each patient upon his admission to the reality orientation

program. From then on, or until there is a new prescription to meet the patient's changing behavior, the staff adopts the prescribed attitude and tries to employ this "treatment personality" in every tangible way to the patient (Folsom 1967).

The major portion of the reality orientation program consists of the twenty-four hour milieu that is designed to be utilized for the confused patient. Taking place during any of his waking hours, the patient is constantly re-educated. This is done with the consistent repetitive reminders of who he is, where he is, why he is here, and what is expected of him. Concrete, basic information is offered to the patient during all of his activities of daily living to hopefully improve his awareness of person, time, and place. Patience and encouragement on the part of the staff and any others as they interact with the patients is expected as this creates a friendly, quiet, and secure atmosphere for the patient (Nursing Service 1974). In the treatment, the patient is praised for his accomplishments while his failures are tacitly overlooked (Taulbee 1976).

The principles which guide the interaction between the staff and the patients have been delineated by Lucille Taulbee, chief nurse at the Veterans Administration Hospital

in Tusculloosa. They are:

- 1) do not hurry an elderly person
- 2) explain all procedures slowly before asking him to cooperate
- 3) talk to him as though you expected him to understand and do not assume that age brings an inability to function intellectually
- 4) treat him with dignity and respect (do not treat him as a child)
- 5) encourage self care--as much as he can do safely for himself (Taulbee 1976, p. 249)

Concrete environmental aids such as large calendars and clocks are placed in private and public areas of the living environment in order to prompt the memory (Nursing Service 1974). A reality orientation board that visually displays the name of the place, the day, the date, the year, the next meal, the next holiday, and the day's weather has become a standard prop to be utilized in all aggregate areas of the living environment. Repetition of all of the basic facts is carried out in this manner until the patient retains the information and feels at ease with it (Stephens 1969).

The family is informed of the procedures and is both encouraged and expected to participate in the therapy. They are urged to visit their relatives and to consistently supply them with reality information just as the staff does. The program is designed to travel with the patient as he visits his home and family on outings; therefore,

the family plays a vital role in this therapy (Nursing Service 1974).

The second phase of the reality orientation program consists of reorientation classes. The participants include those patients recommended by the staff whose behavior has prompted the need for a more structured environment and intensified supplemental work. Usually the classes are divided into a basic and an advanced class. The participants are placed into the class depending upon what score they receive on the Test of Need for Reality Orientation and on actual trial and error of the patient's response to the class in which he is placed. The classroom sessions are held for thirty minutes each day, five days a week with no more than four to six patients in each class. Progression from the basic group, which is equivalent to the first or third grade level, to the advanced group, which is equivalent to the fourth or sixth grade level, is determined by daily observation, progress reports of those personnel who work on a daily basis with the participants, and retesting.

The nursing assistant instructors for the classes are encouraged to utilize their own personality and ingenuity in conducting the classes. A caring attitude and a demonstration of concern for the participants helps to

lower the anxiety of the patients (Taulbee 1976). The list of materials that can be employed to relearn basic information by association of words with pictures and objects is almost endless; maps, brightly colored pictures of birds, food, and animals, anagrams, letter blocks, and flash cards are only a small part of the material repertoire that the instructor can assemble (Stephens 1969).

There are suggested procedures for both the basic and advanced classes but the main idea is to adopt a procedure and follow it routinely on a day to day basis. The patients should always be called by their given names, should initially be asked the basic facts as presented on the reality orientation board as a review, and should be rewarded immediately for any and all participation in the group. The activities planned should be kept simple and brief with an obtainable goal. This is done because the frustration level and attention span of the patients are usually quite short. Only one instruction at a time should be given and if a mistaken answer or no answer is furnished, the correct answer should be given immediately by the instructor and repeated by the patient before the class proceeds to the next question or patient (Stephens 1969). The instructor should always maintain control of the class and not allow the patients to ramble. If rambling should

occur, the instructor should not reinforce or negatively reprimand the incorrect behavior, but rather orient the patient quickly back to reality and proceed with the class (Nursing Service 1974).

The advanced classes proceed to introduce more complicated information but never more than the participants can comfortably handle without the threat of embarrassment. Once a number of the patients have successfully handled the advanced material, a graduation ceremony complete with diploma is held. This social event, performed in front of family and friends, is the first major social affair for the patient. It precedes the patient's participation in other social interaction groups such as educational therapy classes or remotivation sessions (Taulbee 1968).

The effects of the implementation of Reality Orientation Therapy have been reported in the literature. The initial program of Dr. Folsom's at the Veteran's Administration Hospital in Tuscaloosa, Alabama, reported at the end of one year that of the sixty-one remaining patients, twenty-nine remained in treatment with only four showing regression. Seventeen had graduated from the advanced class. The team at that time felt that reality orientation was a prerequisite for success for

the patient (Folsom 1968). In another longitudinal study done in the same hospital in Tuscaloosa on 125 men between 1965 and 1970, statistics revealed that 32 percent of the men improved while 68 percent remained the same. Only one patient regressed. It was pointed out in this study that the patients' physical problems, whether they were brain syndromes or physical diseases, did not correlate in any way with the likelihood of regression or improvement. The outcome of the study was impressive because experience previous to this study had shown that institutionalized older people generally decline rather than remain stable or improve in their mental status. The researchers of this study felt that the reality orientation program as a part of the total rehabilitation of the geriatric person to be highly successful (Letcher, Peterson, Scarborough 1974).

In 1972, a California based corporation instituted reality orientation in several of its nursing homes. They reported that at the end of eight months, forty-four of the fifty-five residents in reality orientation classes in one of their nursing homes showed signs of improvement. Only eleven patients were discontinued from the program and that was because of illness or disruptive behavior. Their report also indicated that there was an increase in

the positive response from the families and the community once the program had been instituted. Visits from the family members were more frequent. In this particular program, members of the family unit were instructed in reality orientation techniques and were supported by the home in their feelings that the geriatric relative would eventually be returning home to them (Phillips 1973).

Citrin and Dixon (1977) conducted an experiment on the twenty-three residents of their institution that were confused and disoriented. Using the experimental design, one-half of the group participated in the complete reality orientation program. Using a pre-test/post-test design, the researchers evaluated and concluded their study at the end of two months. By tabulating the scores from the Reality Orientation Information Sheet, this group of researchers found that the experimental group of patients who had been exposed to reality orientation were more oriented to their environment than the control group who had not been exposed to reality orientation. With such successes beginning to appear in the literature, it would seem to fulfill the statement of Dr. Oberleder that "the brain has sufficient neurons to keep the individual in touch with reality provided he is given enough support

by other people to enable him to withstand certain stressful situations" (Vosburgh 1969, p. 14).

Family Involvement

When the elderly member of the family begins to demonstrate unmistakable signs of confusion and disorientation, the family unit is generally thrown into an upheaval (Whal 1976). Because the elderly person has been empirically shown to be emotionally close to his family, any problem or crisis affecting him will also affect them. This will occur whether he is living in the same household or not (Butler and Lewis 1973; Scherz 1966). The family has the potential to serve as a great resource to the demented relative (Kahana and Kahana 1976) as the feeling of "kinrelatedness is probably an essential element in orienting oneself in time and space as a significant human being" (Butler and Lewis 1973, p. 106). Most families will take in the geriatric relative when he is no longer able to take care of himself and will institutionalize him only when there is no other alternative available (Butler and Lewis 1973).

The role of the family in the care of the aged relative once he has been institutionalized has not been studied to any great extent (Duffy 1975). The literature reveals that most authors feel that the family should

be involved. Strauss (1975) has stated that chronic illness cannot be dealt with until the patient's relationships with his kinfolk are assessed and evaluated. Miller and Harris (1967) feel that the family as well as the patient is admitted to the newly acquired milieu of the institution. They assert that staff, patient, and family must all have meaningful relationships if the therapeutic community is to function at all for the patient. Referring to recommendations for families with children who have a chronic illness, Strauss (1975) proposes the same guidelines for the families of older patients. The first stipulation was that the involvement of the family in the patient's care must "begin when the care begins; and be maintained throughout all levels of care" (Strauss 1975, p. 66). Even though a strain would undoubtedly be placed upon the family because of the chronicity of the disease, the family's participation in the care of the geriatric patient was thought to be a prognosticator for the patient's demise or recovery (Ness 1973; Strauss 1975).

Nurse Involvement

According to Standard IV of the Standards of Psychiatric-Mental Health Practice (1976), health teaching is an essential part of the nurse's professional obligation. Working with families of patients with mental

health problems, the nurse is encouraged to assist the family both to understand the patient's problem as well as cope with the patient's behavior (Burgess and Lazare 1976). Redman (1972) has indicated that the family should be enabled to care for its dependent members. She later implied that a repetitive re-education type of program for those dealing with the chronic and minimally functioning patients should be instituted (Redman 1976). Pohl (1968) has also agreed that the nurse needs to educate the primary person responsible for an individual's health whether it is the individual himself or a family member.

A survey of the literature reveals few accounts of interaction among the geriatric patient, family, and nurse. One report by Strow and MacKreth (1977) delineated the actions taken by the nursing home staff to interact with the patients' families. Believing strongly in family patient relationships, the personnel sought to find the reason for the families' lack of involvement in their relatives' care. Meetings were held to provide opportunities for staff-family interaction. Many misunderstandings as well as family needs were discovered during the interchanges. One need that was disclosed dealt specifically with the families' inability to "reinforce the patient's self image and mental awareness though

stressing reality and avoiding deception" (Strow and MacKreth 1977, p. 34). Working with the families on this particular problem, the personnel reaped the benefits of a staff-family partnership in patient care, strong intra and inter-family relationships, and elevated feelings of self worth expressed by the patients. It would seem that the nurse, family, and patient can form a three party partnership in care.

Summary

The review of literature presented some demographic data on the broadening base of the United States geriatric population. Though no one theory has been totally accepted, several of the more prevalent theories of aging were presented briefly. There was a discussion concerning the aging of the human brain in the three realms of physical, psychological, and sociological. Though all areas are interrelated and interdependent, the normal and abnormal features including behavior manifestations for each area was discussed. The treatment therapy for the confused or disoriented aged person was then discussed. Reality Orientation Therapy was presented in terms of its historical development, its application technique, and finally, reports in the literature which gave

credibility to its success. The family unit in relationship to its propensity and responsibility to its geriatric member was reviewed. The literature revealed a paucity of information concerning the geriatric family members and their role in the care of the older family member. Finally, the nurse's obligation as health teacher was pursued. The need for family-patient-nurse interactions was summarily noted.

CHAPTER III

PROCEDURE FOR COLLECTION AND TREATMENT OF DATA

Chapter III presents the methodology of this study that was conducted to ascertain whether or not the confusion of geriatric patients was affected by interaction with relatives who had been instructed in reality orientation. The setting, the population, the investigative tools, and the procedure for collection and treatment of data is also described.

The study was classified as quantitative descriptive of the subtype hypothesis testing. Because the sampling measures undertaken were convenience rather than random, the study did not meet the criteria for experimental design (Fellen, Tripody, and Maye 1969). The following criteria for quantitative descriptive study of subtype hypothesis testing were met:

1. The study must not be classified as an experimental study
2. The study must include variables which are amenable to measurement and, hence, can provide quantitative descriptions
3. The study must have one of the following purposes pertaining to the seeking of knowledge; the testing of hypothesis, or the accurate description of quantitative relations among variables selected in the research (Fellen, Tripody, and Maye 1969, p. 139).

Setting

This study was conducted at a private nursing home in a North Texas metroplex. This institution has a bed capacity of 180 and an average census of 173 patients. The ages of the residents ranged from 51 years to 101 years with the mean age of all residents being 81.2 years. There was an average of 50 admissions per year to the home and most of these admissions were from the same metroplex area.

The nursing home is divided into seven living areas. Two of the living areas on the ground floor are staffed and designed to provide the acutely ill patient with skilled nursing care. Two of the living areas on the ground floor are staffed and designed to facilitate semi-mobile residents who could administer partial self care. Two of the living areas on the third and fourth floors are staffed and designed to facilitate patients who displayed abnormal behaviors associated with mental deterioration. One living area on the second floor is staffed and designed to facilitate mobile patients who were able to administer most of their own care.

Population

The sample for this study consisted of thirty-four pairs of study subjects. Each pair consisted of geriatric

patients participating in the nursing home's reality orientation classes and his relatives. Initially the sample was selected by random choice. According to Treece and Treece (1973), random choice is the process of "allowing each member of the population equal chance to be included in the sample representing the total population" (p. 77). The names of the relatives of the thirty-four geriatric patients were placed in a hat and seventeen names were drawn. Letters were sent to those seventeen relatives inviting them to attend in instruction class on reality orientation to be held June 6, 1976 (see Appendix A). Only three of the seventeen chose to attend the class.

Because a sample of three was not sufficient to meet the needs of this study, the method of sample selection was changed. The social worker at the nursing home was consulted and seventeen names of relatives from the remaining thirty-one geriatric patients in the population were ascertained. These relatives were chosen because the social worker anticipated that these relatives would be willing to come to the instruction session. Letters (see Appendix A) were sent to the seventeen relatives. Seven relatives chose to attend the second identical instruction session held June 27, 1976.

Because this sample of ten was still insufficient to meet the needs of the study, the social worker was again consulted. Seventeen letters were sent to relatives of the remaining twenty-four geriatric patients in the population (see Appendix A). Six relatives chose to attend the third, identical instruction held July 18, 1976. The total study population consisted of sixteen members and was deemed sufficient by the advisory committee to this study.

The final two sample selections were chosen by the convenience method. According to Abdellah and Levine (1965), the convenience sample is a method whereby the sampling units are chosen "because they happen to be available for participation in the study at a certain time" (p. 709). The convenience sample consisted of those relatives who attended the one hour instruction session on reality orientation on June 27, 1976 or July 18, 1976. The sample was made up of geriatric patients whose relatives or significant others had attended the teaching session. There were sixteen pairs in the study group and eighteen persons in the comparison group.

Tools

Three tools were utilized for this study. The Reality Orientation Pre-Post Test (see Appendix B) was a test given to the relatives before and after the instruction

session on reality orientation. This tool was constructed by the researcher. Utilized initially in July of 1975, the tool was designed to measure the effectiveness of a teaching session given to relatives on reality orientation. The test items were constructed specifically to measure the instructional objectives of the teaching plan. Prior to its administration, the test was examined for clarity and appropriateness by the activities director and the reality orientation therapist of that nursing home. At that time the test was administered and revealed that the learning of the relatives had increased by 27 percent. Because the same lesson plan was utilized to instruct the relatives of the study group, it was appropriate to implement the same pre-post test to this group of relatives.

The second tool of this study, the Reality Orientation Time Schedule and Guidelines (see Appendix C) was developed for this study to: 1) monitor the relatives' visiting time, and, 2) provide the relatives with a handy reference guide on reality orientation techniques. The relatives who came to the instruction sessions were given this sheet on which they could record their visiting times. The time record began the Monday after their Sunday instruction session. This sheet was divided into two sections. In the first section, spaces were provided for each week

that was included in the three month study period. The weeks were numbered and the dates for each week were delineated. Spaces were provided for each day of each week so that the visiting relative could record how much time he spent visiting the geriatric relative during any day of any week. The second section of this tool was derived from the objectives of the teaching session on reality orientation and provided a list of guidelines and actions pertinent to the implementation of Reality Orientation Therapy. This reference section was designed to be used by the relatives at their discretion.

The third tool of the study, The Test of the Need For Reality Orientation (Appendix D) was originally utilized by the Regional Office of Reality Orientation Traineeship Program in the North Texas area. It was adapted by Eleanor Barnes for use in the metroplex in which her study took place. The adaptation consisted of deleting five of the mathematical questions from the original test that was developed at the Veterans Administration in Tuscaloosa, Alabama. In her masters thesis, Barnes (1973) worked with a population of forty-seven geriatric patients. The Test of the Need For Reality Orientation was the test that she administered to her total population. A correlation analysis of the pre-test, post-test was done to measure the reliability

of the instrument. The correlation analysis was found "significant at the alpha = to .01 confidence level" (Barnes 1973, p. 55). This test is presently used in the metroplex by four of the larger nursing homes that implement reality orientation.

The Test of the Need For Reality Orientation consists of twenty open-ended questions with a scored response of 0, 1, or 2. The total score ranges from 0-40 points. The method of scoring is as follows:

0 = responds incorrectly or not at all

1 = responds with partial correctness or responds correctly with great hesitation after question has been repeated three times

2 = responds correctly with little or no hesitation

The test is not timed and free response is to be employed. The questions are asked one at a time and the patient is to progress through all of the questions, answering each one in some manner as indicated by the score. The test measures the amount of memory loss, confusion, and time-place-person disorientation of the individual. On this test, a low score is correlated with a great degree of confusion and disorientation; a high score is correlated with a low degree of confusion and disorientation.

Data Collection

Initial permission to conduct this study was obtained from the Texas Woman's University Human Rights Committee (Appendix E). Written permission to conduct the study in the selected nursing home was obtained from the appropriate administrative personnel (Appendix F). An oral description of the study was given to each relative or significant other who attended the instruction session on reality orientation. They were assured of anonymity for themselves and their relative and a consent form for themselves and for their relative was obtained (Appendix G). The confused state of the geriatric patients participating in the study necessitated the consent of the legal guardian rather than the consent of the patient himself.

On the week prior to the initial teaching session, the researcher pre-tested the total geriatric population utilizing the tool, The Test of the Need For Reality Orientation. An assistant tested the total geriatric population on the weeks prior to the second and third teaching sessions. The assistant was utilized to administer the tests in order to create a double blind testing situation that prevented bias in the scoring. All testing was done between four o'clock and eight o'clock in the evening.

Each instruction session on Reality Orientation Therapy was taught by the same person. Prior to the beginning of each session, the relatives were asked to take the Reality Orientation Pre-Post Test. The relatives were instructed to identify their paper in some way, though they did not have to use their name, since they would be taking the same test after the teaching session. They were informed that the test measured the effectiveness of the teaching that was to be done.

The same instructor used the same lesson plan and materials at each instruction session. The sessions lasted one hour. At the end of the instruction session, the relatives were given the Reality Orientation Time Schedule and Guidelines. The form was explained to them and they all agreed to keep a written account of their weekly visiting times on this sheet. They were told that the study stipulated that only two weeks of visitation could be missed. They were also informed that they would be contacted at the end of three months and asked to return the top half of the form.

At the end of each three month time period, The Test of the Need For Reality Orientation was administered to the total geriatric population. All testing was done

between four o'clock and eight o'clock in the evening. The test was administered and the scores were tabulated.

On October 1, 1976, a letter was sent with a self-addressed stamped envelope to all of the relatives who were members of the study group (Appendix H). On November 8, 1976, a follow-up letter was sent to the relatives who had not responded; this letter also contained a self-addressed, stamped envelope. On November 15, 1976, telephone calls were made to those remaining relatives who had not returned their time sheets. At the end of the period, twelve relatives returned their time sheets or responded in some way. Seven relatives met the criteria of the study.

Treatment of Data

The information obtained from the demographic data was tabulated and the number of males and females in the comparison group was compared to the number of males and females in the study group. Fisher's exact probability test was applied and is appropriate to use to ascertain any significance of differences between two independent groups. The ages of each member of each group were rank ordered and the non-parametric Mann-Whitney U test was applied. This test is appropriate to use to ascertain if two independent

groups have been drawn from the same population (Siegel 1956).

At the end of the three month testing period, the pre-test post-test score for each member of both groups was tabulated. The difference of each paired sample was ascertained and then rank ordered without respect to sign, and placed in their respective group. The Wilcoxon matched-pairs signed-ranks test was then applied to each group. This non-parametric test is appropriate to utilize to show the direction and relative magnitude of differences arising from any two paired samples (Siegel 1956).

In order to compare any pre-test, post-test changes between these two groups, the Mann-Whitney U test was utilized. This test is again appropriate when two independent groups are compared and the sample size is small (Siegel 1956).

Finally, the tests taken by the relatives during the reality orientation instruction session were scored. Each pre-test and post-test was paired and the Wilcoxon matched-pairs signed-ranks test was applied (Siegel 1956).

Summary

Chapter III described the procedure utilized in collecting and analyzing data of this study that was concerned with determining whether or not the confusion of

geriatric patients was affected by relatives who had been instructed in reality orientation. The setting, the sample population, and the convenience sampling methods were outlined. The three tools used in the study, The Reality Orientation Pre-Post Test, The Reality Orientation Time Schedule and Guidelines sheet, and The Test of the Need For Reality Orientation were explained. The method for data collection and the statistical methods utilized for analysis were discussed. Data were submitted to the Fisher exact probability test, the Mann-Whitney U test, and the Wilcoxon matched-pairs signed-ranks test.

CHAPTER IV

ANALYSIS OF DATA

This quantitative descriptive study was conducted to compare the functional level of confused geriatric patients whose significant others had been instructed in reality orientation with the functional level of confused geriatric patients whose significant others had not been instructed in reality orientation. Data were collected through the use of The Test of the Need For Reality Orientation, the Reality Orientation Pre-Post Test, and The Reality Orientation Time Schedule and Guidelines. The demographic data and the functional level of each geriatric patient were obtained through the administration of The Test of the Need For Reality Orientation. The data from the Reality Orientation Pre-Post Test measured the effectiveness of the instruction sessions given to the relatives on reality orientation. The Reality Orientation Time Schedule and Guidelines recorded the amount of time spent by the relatives with the geriatric patients in the study group during the three months of the study. The data obtained, the analysis and the interpretations will be presented in this chapter.

Demographic Data

Demographic data were obtained from The Test of the Need For Reality Orientation. The population for this study consisted of thirty-four geriatric persons who were participating in the reality orientation classes of the nursing home. The comparison group consisted of eighteen persons; the study group consisted of seven persons. The original number of patients within the study group was sixteen. Nine of the relatives who served as counterparts in the experiment dropped out of the study; this necessitated the elimination of the nine patients in the study group. Table 1 summarizes the participation of the geriatric persons in the study.

TABLE 1
PARTICIPATION OF THE GERIATRIC PATIENTS

	Entered the Study	Completed the Study
Comparison Group	18	18
Study Group	16	7
Total	34	25

N=34

The comparison group was composed of four males (22 percent) and fourteen females (78 percent). The study group was composed of seven females (100 percent). Computation of Fisher's exact probability test showed no significant difference ($p > .2$) between the two groups in regard to sex. These data revealed that even though the study group was composed entirely of females, the parity of the two groups was not affected. Table 2 summarizes the sex distribution of the two samples.

TABLE 2
SEX DISTRIBUTION OF THE TWO SAMPLES

	Males	Females	Totals
Comparison Group	4 (22%)	14 (28%)	18
Study Group	0 (0%)	7 (100%)	7
Total	4	21	25

N = 25

The ages of the comparison group ranged from 60 years to 100 years with a mean age of 83.2 years. The ages of the study group ranged from 77 years to 93 years with a mean age of 85.0 years. Although the mean age for the study group appears slightly older, the Mann-Whitney U-test showed no significant difference ($p > .2$) between the two groups. These data revealed that the two samples were

similar in regard to age composition. Table 3 presents the mean and range for the age variable.

TABLE 3
AGE DISTRIBUTION OF THE TWO SAMPLES

	Mean	Range	N
Comparison Group	83.2	69-100	18
Study Group	85.0	77-93	7
Total	83.7	60-100	25

N=25

Data Analysis

The data obtained from the Reality Orientation Time Schedule and Guidelines verified the fulfillment of delimitation three of this study. This delimitation states that the significant others of the sample must visit the geriatric patient a minimum of one hour per week for three months, not missing more than two weeks. Sixteen of the significant others agreed to participate in the study. At the end of three months, twelve significant others (75 percent) returned the Reality Orientation Time Schedule and Guideline data sheet. Seven (44 percent) of the twelve significant others successfully met the criteria of the study. A summary of the response of the significant others is presented in Table 4.

TABLE 4

RESPONSE OF THE SIGNIFICANT OTHERS

	Entered the Study	Verified Visiting Times	Met the Criteria
Participants	16	12	7
	100%	75%	44%

N=16

Data were obtained through the use of the Test of the Need for Reality Orientation to determine the functional level of the geriatric population. The functional level of the geriatric population was measured one week prior to the reality orientation instruction sessions held for the significant others. The functional level of the geriatric population was measured again three months after the initial testing. The change of scores occurring within the comparison group, the change of scores occurring within the study group, and the comparison of the changes in scores between the two groups will be discussed separately.

The scores of the geriatric patients in the comparison group measured one week prior to the instruction of significant others in reality orientation ranged from 0-27. The scores of the geriatric patients in the comparison group measured three months following the initial evaluation

ranged from 0-36. Calculation of the Wilcoxon matched-pairs signed ranks test resulted in $T=36$. The difference in the scores between the pre-test and the post-test period was not significant ($p > .2$). This finding indicated that the geriatric subjects in the comparison group did not maintain or improve their level of functional performance in the areas of orientation, memory, and socialization during a three month period. Scores for both of the evaluations of the comparison group are illustrated in Table 5.

TABLE 5

DIFFERENCE IN NEED FOR REALITY ORIENTATION
TEST SCORES WITHIN THE COMPARISON GROUP

	Mean	Range
Pre-test	11.39	0-27
Post-test	12.17	0-36

N=18

The scores of the geriatric patients in the study group measured one week prior to the instruction of significant others in reality orientation ranged from 2-27. The scores of the geriatric patients in the study group measured three months following the initial evaluation ranged from 6-32. Calculation of the Wilcoxon matched-pairs signed ranks test resulted in $T=9$. The difference

of scores between the pre-test and post-test period was not significant ($p > .2$). This data indicated that the geriatric subjects in the study group did not maintain or improve their level of functional performance in the areas of orientation, memory, and socialization during a three month period. Scores for both of the evaluations of the study group are illustrated in Table 6.

TABLE 6
MEAN TEST SCORES WITHIN STUDY GROUP

	Mean	Range
Pre-test	14.86	2-27
Post-test	14.43	6-32

N=7

The difference in scores in the comparison group ranged from -13 to +9; the mean difference was .78. The difference in scores in the study group ranged from -9 to +5; the mean difference was -0.43. The Mann-Whitney U-test resulted in $U=47.5$. The difference of changes in scores between the two groups at the end of three months was not significant ($p > .2$). The results of this statistical analysis indicated that the progress of the functional level of the study group did not differ appreciably from

the progress of the functional level of the comparison group. Table 7 shows the comparison of changes of scores between the two groups.

TABLE 7
COMPARISON OF PRE- AND POST-TEST
SCORES BETWEEN GROUPS

	Mean	Range	N
Comparison Group	0.78	-13 to +9	18
Study Group	-0.43	- 9 to +5	7

N=25

The effectiveness of the teaching in the instruction sessions on reality orientation was measured by the scores obtained from the administration of The Reality Orientation Pre-Post test. Possible scores on this test ranged from 0-10. A total of twenty-five significant others participated in one of the three identical instruction sessions. Each person took the same test prior to and immediately after the instruction session. The scores on the test taken prior to the instruction ranged from 3-10 with a mean score of 6.4. The scores on the same test taken immediately after the instruction ranged from 5 to 10. The mean score was 7.24. The greatest increase in scores from the pre to post-test for one individual was 4; the greatest

decrease in scores from the pre to post-test for one individual was 3. Calculation of the Wilcoxon matched-pairs signed ranks test resulted in $T=28$, which was significant ($p=.02$). The significant increase in post-test scores indicated that the relatives did learn during the instruction session on reality orientation. Table 8 displays the comparison of Reality Orientation Pre-Post scores.

TABLE 8
COMPARISON OF REALITY ORIENTATION
PRE POST-TEST SCORES

	Mean	Range
Pre-test	6.44	3-10
Post-test	7.24	5-10

N=25

Summary of Findings

Analysis of data showed that there was no significant progress of the functional level of the geriatric patients in either the comparison group or the study group ($p > .2$). It is interesting to note that the comparison group showed a slight increase in their mean score while the study group showed a slight decrease in their mean score. The first null hypothesis was retained; H_{01} -- there will be no significant difference in the functional level

of patients whose significant others had been instructed in Reality Orientation Therapy as compared to geriatric patients whose significant others had not been instructed in Reality Orientation Therapy.

There was no significant progress in the functional level of the geriatric patients whose relatives attended an instruction session on reality orientation ($p > .2$).

Therefore, the following null hypothesis was retained:

H_{02} -- at the end of three months, the functional level of geriatric patients whose significant others have been instructed in the methodology of reality orientation will not show progress.

There was no significant progress in the functional level of the geriatric patients whose relatives had not attended an instruction session on reality orientation ($p > .2$). Therefore, the following null hypotheses was

retained: H_{03} -- at the end of three months, the functional level of geriatric patients whose significant others have not been instructed in the methodology of reality orientation will not show progress.

There was no significant difference between the comparison and the study groups with regard to age or sex ($p > .2$). The effectiveness of the teaching in the

instruction session on reality orientation given to the significant others was significant ($p=.02$).

Summary

Chapter IV described the analysis and interpretation of data collected from a pre and post-testing of the functional level of a comparison and study geriatric sample. Statistical analysis was made to determine if there was a significant difference in 1) the pre-post test scores of the comparison group, 2) the pre-post test scores of the study group, 3) the progress of the comparison group versus the progress of the study group. No significant differences were found. Analysis and interpretation of data collected from a pre-post test given to the significant others at an instruction session was also made. Statistical analysis was done to determine the effectiveness of teaching during that session; the effectiveness of the teaching was significant. All demographic information obtained showed no significant differences between the comparison and the study groups. The tool utilized to verify the visiting time of the significant others revealed that seven of the relatives in the study group met the criteria of the study.

CHAPTER V

SUMMARY, CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS

This study was conducted to ascertain whether or not the confusion of institutionalized geriatric patients was affected by interaction with relatives who had been instructed in reality orientation techniques. In Chapter V, a summary of the study will be reviewed. Following this, the conclusions, implications, and the recommendations from this study will be presented.

Summary

A quantitative descriptive study was conducted to determine if interaction with significant others who had been instructed in the methodology of reality orientation affected the functional level of geriatric patients. The Test of the Need For Reality Orientation was utilized to measure the functional level of the geriatric patients. This test was administered two times. These were: 1) one week prior to the instruction sessions on reality orientation given to the relatives, and 2) three months after the initial testing. The Reality Orientation Pre-Post Test was utilized to measure the effectiveness of the teaching done during the instruction session on reality orientation given

to the relatives. These significant others took the test prior to the reality orientation instruction session, as well as immediately after. The Reality Orientation Time Schedule and Guidelines was utilized to assess the amount of time spent weekly by the relatives with the geriatric patients in the study group. The time schedule was given to the relatives at the instruction session on reality orientation, and was returned by the relatives three months after the teaching session.

The population of this study consisted of thirty-four geriatric patients who were participating in the reality orientation classes in a nursing home in a Texas metroplex. The entire geriatric population was tested for their functional level utilizing the Test of the Need For Reality Orientation. Utilizing random selection, letters were sent out to relatives of the geriatric population, inviting them to an instruction session on reality orientation. At that time, three relatives responded by coming to the instruction session. Convenience sampling was then instituted and subsequently thirteen more relatives responded to the letters by coming to an instruction session. At each one-hour instruction session, the significant others (who ultimately represented sixteen geriatric patients) were pre-tested and then given

information on the Reality Orientation Therapy program in the nursing home. They were also told how they could implement reality orientation techniques during the times that they visited their geriatric relatives. Written consent to participate in the study was obtained from the relatives. They were informed of the need to: 1) utilize reality orientation techniques while visiting with their relatives, 2) visit their geriatric relative a minimum of one hour per week (not missing more than two weeks visitation) for three months, and 3) keep a tabulation of the time visited on the Reality Orientation Time Schedule and Guidelines sheet. After the instruction session, the significant others took the same test, Reality Orientation Pre-Post Test, as a post-test. At the end of the three month period, the geriatric population was again tested for their functional level utilizing the Test of the Need For Reality Orientation. The time schedules were collected from twelve responding relatives and seven were judged to have successfully met the criteria of the study. The final comparison group consisted of eighteen geriatric patients; the final study group consisted of seven geriatric patients. No contact was made with members of the families of the comparison group.

The first hypothesis tested was: H_{01} -- There will be no significant difference in the functional level of patients whose significant others had been instructed in Reality Orientation Therapy as compared to geriatric patients whose significant others had not been instructed in Reality Orientation Therapy. The hypothesis was retained. There was no significant difference in the progress of the functional level of the comparison group and the study group. It was noted that the mean difference of the study group indicated a slight decrease in the functional level of the patients while the mean difference of the comparison group indicated a slight increase in the functional level of the patients.

The second hypothesis tested was: H_{02} -- At the end of three months, the functional level of geriatric patients whose significant others have been instructed in the methodology of reality orientation will not show progress. The hypothesis was retained. There was no significant progress in the functional level of these geriatric patients.

The third hypothesis tested was: H_{03} -- At the end of three months, the functional level of geriatric patients whose significant others have not been instructed in the methodology of reality orientation will not show progress.

The hypothesis was retained. There was no significant progress in the functional level of these geriatric patients.

The scores on the test taken by the significant others at the instruction session on reality orientation showed a significant increase from the pre to post-testing. There was no significant difference between the study and the comparison group in regards to the demographic data of sex and age.

Conclusions

Conclusions were drawn from the statistical analysis of the demographic data. It was shown that there was no significant difference between the two groups in regards to sexual composition; it was also shown that each group's composition was largely female. The literature reveals that the nation's aged population has a preponderance of females. The greater longevity of the female has already showed the proportion of females to males at 134 to 100 after the age of 65 (U.S. Department of Health, Education, and Welfare Volume III 1974). The male-female composition of this study's population reflects a prevalence of females (thirty females and four males), which is typical of the national tendency.

Analysis of demographic data also revealed that there was no significant difference between the two groups in regards to age. The mean age for the comparison group was 83.2 years; the mean age for the study group was 85.0 years. The literature reveals that more than one in three of America's aged are seventy-five years and over (U.S. Department of Health, Education, and Welfare Volume I 1974) and that the average of those entering nursing homes is eighty years (Butler 1977). The age composition of this study coincides with the findings of the national studies.

The analysis of data collected in this study from The Test of the Need For Reality Orientation indicated that there was no significant progress in the functional level of the geriatric patients in the comparison group, and that there was no significant progress in the functional level of the geriatric patients in the study group. Presently there have not been any studies reported in the literature which validate or predict a suitable rate of progress in the functional level of a confused patient who is already participating in Reality Orientation Therapy. The functional level of both groups in this study failed to show progress. This may possibly be due to the length of time allotted for the study. Three months may not be a realistic parameter in which to anticipate change in the functional

level of a confused patient who has previously entered the therapy's regime.

The analysis of data collected in this study from the Test of the Need For Reality Orientation also revealed that there was no significant difference in the progress of the functional level between the two groups of geriatric patients. This would indicate that the relatives of the geriatric patients in the study group did not influence the progress of the functional level of these geriatric patients. There was no significant influence by the relatives even though they did obtain instruction on how to implement the techniques of Reality Orientation Therapy. It is possible that the relatives were ineffectual because in actuality, they did not implement the techniques that they learned. Redman (1972) has indicated that compliance with treatment regimes is a facet of behavior that only the individual himself controls. Redman related that studies indicate patients fail to follow through with treatments in 4 to 100 percent of the cases reported. She concluded that "follow-through behavior does not occur automatically" (p. 32). One of the limitations of this study specified that utilization of the concepts of reality orientation by the relatives would vary. This uncontrolled,

unquantified variable may significantly have influenced any changes in functional level of the geriatric study group.

Despite the relatives' apparent lack of influence on the progress of the functional level of the study group, analysis of data obtained from The Reality Orientation Pre-Post Test indicated that the significant others in the study did acquire new knowledge during the instruction session on reality orientation. The results from this study parallel those obtained in a pilot study conducted in July 1975. At that time, relatives of geriatric patients in a nursing home were given an instruction session on reality orientation and the Pre-Post Test for Reality Orientation. Analysis of the data showed that the learning of the relatives increased 26 percent.

The response of the relatives to this study was tabulated through the use of the Reality Orientation Time Schedule and Guidelines. Initially, sixteen relatives agreed to participate in the study; at the end of three months, twelve relatives returned the tool. Seven of the twelve relatives met the criteria of the study. Nine of the original sixteen relatives dropped out of the study. The significant others' involvement in the care of their geriatric relatives decreased during this study.

The decreased participation of the relatives may have been due to their unrealistic expectations regarding personal time commitment. Expectations of prompt progress in the functional level of the geriatric relative may have also caused some discouragement and decreased involvement in this study. Additionally, it is possible that the experimental design may account for the rate of attrition. Participation in an experimentally designed study will often place a burden on the study subjects which results in a higher dropout rate than that found in other designs (Abdel-lah and Levine 1969).

Implications

The findings of this study have implications for nursing practice in the following ways:

1. A disproportionate number of the aged population has been shown to be female; this fact has revealed itself in the composition of the classes on reality orientation. It is relevant for the nursing personnel who are serving as instructors in the reality orientation classes to utilize those types of stimulation materials which are pertinent to the sexual role of the constituents of the class. The re-learning of basic information via the association of words with pictures and objects would possibly be enhanced if the

objects and pictures were germane to the social connotations of the sexual roles held by the participants of the class.

2. All nursing personnel in nursing homes need to personally implement twenty-four hour reality orientation. They must also direct others to implement twenty-four hour reality orientation. Therapy for the patients must not be left up to the classroom sessions or the family.

3. Nursing personnel need to reinforce family efforts to implement reality orientation.

4. Nursing personnel need to evaluate the progress of the functional level of the geriatric person at regularly scheduled intervals.

5. Nursing personnel need to help families set realistic goals for themselves as they attempt to become involved in the care of their relative.

The findings of this study have implications for nursing service in the following ways:

1. Nursing service should provide continuing education for families whose geriatric relatives are participating in any of the therapy programs of the nursing home.

2. Nursing service should provide continuing inservice programs on reality orientation for all personnel caring for geriatric patients.

The findings of this study have implications for nursing education. They are:

1. Nursing students should be taught what Reality Orientation Therapy is, and how to implement it.
2. Nursing students need to be provided with opportunities to work with geriatric patients and their families.

Recommendations for Further Study

Based on the findings of this study, the following recommendations are offered:

1. A study be conducted to determine if the progress level of the geriatric patients in a reality orientation class is affected by the utilization of visual materials that are oriented to the sexual roles germane to the gender of the participants of the class.
2. A study be conducted to determine the effectiveness of a teaching booklet on Reality Orientation Therapy, developed for families of patients who are in Reality Orientation Therapy.
3. A study be conducted to determine if there is a time parameter within which a patient in Reality Orientation Therapy can be expected to progress to a higher level of functional performance.

APPENDIX A

May 30, 1976

Dear

I am a graduate student at Texas Woman's University majoring in geriatric nursing. I have become very interested in reality orientation, a therapy designed to aid the geriatric person, and am presently working with the staff at Golden Acres in their reality orientation classes. Because your relative is participating in these classes, I would like to meet and talk with you about this program at Golden Acres.

On Sunday, June 6, from 2-3 in the afternoon, there will be an informal meeting for the relatives and friends of residents who are in the reality orientation program. It will be held in the basement classroom below occupational therapy. At this meeting, besides talking about what the staff is doing, I would like to show you what you can do to help your relative in this program. I encourage you to come if you can, as I believe that it will be an interesting and informative gathering. I will look forward to meeting you on Sunday!

Sincerely,

Cheryl Steudtner RN

July 12, 1976

Dear

As you know, one of the goals at Golden Acres is to help your relative reach and maintain his highest potential for a meaningful life. In the case of a confused geriatric person, a recognized therapy designed to restore the memory loss is reality orientation. Golden Acres has an established program of reality orientation for its residents in which your relative is participating in the daily classroom sessions.

Last month, we sent a letter telling you about the new phase of reality orientation that involves the participation of the resident's relatives. We feel that the resident will receive maximum benefit from the program if the resident's family understands and implements the simple but important techniques of this therapy during their weekly contacts with each other.

This Sunday, July 18, we are having another meeting to introduce you to this new phase of the program. It will be held from 1:30 to 2:30 in the basement classroom underneath the occupational therapy department. At this meeting we will discuss the goals of the program and the actions you will implement as a part of the therapy. We urge you to attend as your participation will enhance the positive progress of your relative in this program.

Sincerely,

Cheryl Steudtner RN

June 19, 1976

Dear

As you know, one of the goals of Golden Acres is to help your relative reach and maintain his highest potential for a meaningful life. In the case of a confused geriatric person, a recognized therapy designed to restore memory loss is reality orientation. Golden Acres has an established program of reality orientation for its residents in which your relative is participating in the daily classroom sessions.

Presently we are implementing a new phase of the reality orientation program that involves the participation of the resident's relatives. We do this because we feel that in order for the resident to receive maximum benefit from the program, it is essential for the resident's family to both understand and implement the simple but important techniques of this therapy during their weekly contacts with each other.

So that you may become informed about your role in this new phase of the program, we are having a meeting on Sunday, June 27, from 1:30 to 2:30 in the basement classroom underneath the occupational therapy department. At this meeting we will discuss the goals of the program and the actions you will implement as a part of the therapy. We urge you to attend as your participation will enhance the positive progress of your relative in this program.

Sincerely,

Cheryl Steudtner RN

APPENDIX B

REALITY ORIENTATION PRE-POST TEST

IDENTIFICATION CODE _____

PLEASE CIRCLE TRUE OR FALSE FOR THE FOLLOWING QUESTIONS.

- | | | | |
|------|-------|-----|---|
| TRUE | FALSE | 1. | Reality Orientation is an early phase of rehabilitation. |
| True | False | 2. | Reality Orientation is best carried out by qualified medical personnel. |
| True | False | 3. | Confusion in old age is simply a part of physical aging that continues on once it has started. |
| True | False | 4. | Members of the Reality Orientation Class meet one time per week. |
| True | False | 5. | The participants in Reality Orientation benefit most from the classroom session. |
| True | False | 6. | A common feature of Reality Orientation is for everyone to present as many facts as they can to the older person in order to keep him in touch with the 'real' world. |
| True | False | 7. | An older, confused person acts childlike and should be indulged in and treated as a child. |
| True | False | 8. | If an older person does not answer a question, then you should quickly go on to ask another question until he can answer one. |
| True | False | 9. | A consistent attitude is not necessary in Reality Orientation. |
| True | False | 10. | After the older person has 'graduated' from the Reality Orientation class, he will not need any further therapy. |

APPENDIX C

REALITY ORIENTATION TIME SCHEDULE AND GUIDELINES

WEEK	DATES	SUN	MON	TUE	WED	TH	FRI	SAT
1	June 13-19							
2	June 20-26							
3	June 27-July 3							
4	July 4-10							
5	July 11-17							
6	July 18-24							
7	July 25-31							
8	August 1-7							
9	August 8-14							
10	August 15-21							
11	August 22-28							
12	August 29-September 4							

GUIDELINES

1. Consistently present the following facts
 - a. Name
 - b. You live at Golden Acres
 - c. Date
 - d. Year
 - e. Weather
 - f. Next meal
 - g. Next holiday
2. Speak slowly and distinctly
3. Speak in a friendly manner but do not talk 'baby talk'
4. Look directly at him when you are addressing him
5. Give him adequate time to respond
6. Give immediate sincere praise for accomplishments
7. Do not allow failure; tell him the answer, have him repeat it, then go on to a new item

REALITY ORIENTATION TIME SCHEDULE AND GUIDELINES

WEEK	DATES	SUN	MON	TUE	WED	TH	FRI	SAT
1	June 27- July 3							
2	July 4- 10							
3	July 11-17							
4	July 18-24							
5	July 25-31							
6	August 1-7							
7	August 8-14							
8	August 15-21							
9	August 22-28							
10	August 29-September 4							
11	September 5-11							
12	September 12-18							

GUIDELINES

1. Consistently present the following facts
 - a. Name
 - b. You live at Golden Acres
 - c. Date
 - d. Year
 - e. Weather
 - f. Next meal
 - g. Next holiday
2. Speak slowly and distinctly
3. Speak in a friendly manner but do not talk 'baby talk'
4. Look directly at him when you are addressing him
5. Give him adequate time to respond
6. Give immediate sincere praise for accomplishments
7. Do not allow failure; tell him the answer, have him repeat it, then go on to a new item

REALITY ORIENTATION TIME SCHEDULE AND GUIDELINES

WEEK	DATES	SUN	MON	TUE	WED	TH	FRI	SAT
1	July 18-24							
2	July 25-31							
3	August 1-7							
4	August 8-14							
5	August 15-21							
6	August 22-28							
7	August 29-September 4							
8	September 5-11							
9	September 12-18							
10	September 19-25							
11	September 26-Oct 2							
12	October 3-9							

GUIDELINES

1. Consistently present the following facts
 - a. Name
 - b. You live at Golden Acres
 - c. Date
 - d. Year
 - e. Weather
 - f. Next meal
 - g. Next holiday
2. Speak slowly and distinctly
3. Speak in a friendly manner but do not talk 'baby talk'
4. Look directly at him when you are addressing him
5. Give him adequate time to respond
6. Give immediate sincere praise for accomplishments
7. Do not allow failure; tell him the answer, have him repeat it, then go on to a new item

APPENDIX D

TEST OF THE NEED FOR REALITY ORIENTATION

Resident's Name _____ Age _____ Sex _____ Admission Date _____

Date Tested _____ Time Tested _____ Tester's Name/Title _____

Method of Scoring: 0 = responds incorrectly or not at all
 1 = responds with partial statements, is "close",
 responds correctly with great hesitation, etc.
 2 = responds correctly with little or no hesitation

QUESTION	RESPONSE	SCORE	(circle one)	
1. What is your name? _____		0	1	2
2. In what country (state) were you born? _____ _____		0	1	2
3. How old are you? _____		0	1	2
4. What is the name of the Home we are in? _____ _____		0	1	2
5. What city and state are we in now? _____ _____		0	1	2
6. What kind of weather are we having today? _____ _____		0	1	2
7. What part of the day is it (morning/afternoon/ evening)? _____		0	1	2
8. What day of the week is this? _____		0	1	2
9. What is the month and the year? _____		0	1	2
10. What is our next meal going to be? _____		0	1	2
11. What is our next holiday? _____		0	1	2
12. If you paid 25¢ for a 10¢ candy bar, how much change should you get? _____		0	1	2
13. Who is the President of the United States? _____ _____		0	1	2
14. What color is this? (show color) _____		0	1	2

QUESTION	RESPONSE	SCORE	(circle one)	
15. What is your room number? _____		0	1	2
16. What is this? <u>(show picture card)</u>		0	1	2
17. Place your right hand over your right eye. _____		0	1	2
18. Please tell me the name of one of your friends who lives here. _____		0	1	2
19. Please tell me the name of someone who works here. _____		0	1	2
20. Name someone who comes to visit you. _____		0	1	2

TESTER'S COMMENTS:

Total Score _____

APPENDIX E

TEXAS WOMAN'S UNIVERSITY
DALLAS, TEXAS 75235



COLLEGE OF NURSING

May 4, 1976

Cheryl Steudtner
10531 Benbrook
Dallas, Texas 75228

Dear Ms. Steudtner,

The Human Research Review Committee has reviewed and accepted your protocol "Measuring the Effectiveness of Family Interaction After Instruction on Reality Orientation". We have made the following recommendation:
"Consent Form B must be used for participant subject as well as for the significant other."

Sincerely,

A handwritten signature in cursive script that reads 'Opal H. White'.

Opal H. White, R.N., D.N.Sc.
Chairman

OHW/vl

OFFICE OF THE ASSOCIATE DEAN
TEXAS WOMAN'S UNIVERSITY
DALLAS CENTER
1810 INWOOD ROAD
DALLAS, TEXAS 75235

OFFICE OF THE DEAN
TEXAS WOMAN'S UNIVERSITY
Box 23026, TWU STATION
DENTON, TEXAS 76204

OFFICE OF THE ASSOCIATE DEAN
TEXAS WOMAN'S UNIVERSITY
1130 M. D. ANDERSON BLVD.
HOUSTON, TEXAS 77025

APPENDIX F

TEXAS WOMAN'S UNIVERSITY
COLLEGE OF NURSING
DENTON, TEXAS

DALLAS CENTER
1810 Inwood Road
Dallas, Texas 75235

HOUSTON CENTER
1130 M.D. Anderson Blvd.
Houston, Texas 77025

AGENCY PERMISSION FOR CONDUCTING STUDY*

THE Jewish Home for the Aged, Golden Acres

GRANTS TO Cheryl M. Steudtner

a student enrolled in a program of nursing leading to a Master's Degree at Texas Woman's University, the privilege of its facilities in order to study the following problem:

To determine if interaction with significant others who have been instructed in the methodology of reality orientation affects the functional level of geriatric patients

The conditions mutually agreed upon are as follows:

1. The agency (may) (may not) be identified in the final report.
2. The names of consultative or administrative personnel in the agency (may) (may not) be identified in the final report.
3. The agency (wants) (does not want) a conference with the student when the report is completed.
4. The agency is (willing) (unwilling) to allow the completed report to be circulated through interlibrary loan.
5. Other: _____

Date May 24, 1976

Rosa M. Garrett CTR
Signature of Agency Personnel

Cheryl M. Steudtner
Signature of student

Signature of Faculty Advisor

*Fill out and sign three copies to be distributed as follows: Original -- Student; first copy -- agency; second copy -- T.W.U. College of Nursing.

APPENDIX G

TEXAS WOMAN'S UNIVERSITY

(Form B-- Oral presentation to subject)

Consent to Act as a Subject for Research and Investigation:

I have received an oral description of this study, including a fair explanation of the procedures and their purpose, any associated discomforts or risks, and a description of the possible benefits. An offer has been made to me to answer all questions about the study. I understand that my name will not be used in any release of the data and that I am free to withdraw at any time.

Signature _____ Date _____

Witness _____ Date _____

Certification by Person Explaining the Study:

This is to certify that I have fully informed and explained to the above named person a description of the listed elements of informed consent.

Signature _____ Date _____

Position _____

Witness _____ Date _____

APPENDIX H

10531 Benbrook
Dallas, Texas
October 1, 1976

Dear

Though it hardly seems possible, three months have passed and now it is time to evaluate the effects of your input into the reality orientation program at Golden Acres. Your relative has already been reassessed and now your 'visiting schedule' sheet is all that is needed to complete the evaluation of this part of the program.

Would you please send the upper portion of the visitation sheet back to me in the enclosed envelope. I will tabulate all of the data and convey the conclusions of this study to you at a future meeting if you so desire.

If you have any questions, please feel free to contact me at 328-6988. I am most anxious to receive your time schedule as it is the final data needed to complete this study. Thank you for your assistance at this time.

Sincerely,

Cheryl Steudtner

10531 Benbrook
Dallas, Texas
November 8, 1976

Dear

The three months designated for the study of relatives' effects on residents in the reality orientation program at Golden Acres has now passed. The facts and figures need to be compiled to correlate relatives' input with the progress of the Golden Acre residents. Though the residents have been reevaluated, the study is at a standstill because all of the relatives' responses have not been obtained.

I am in particular need of your input to this study. If you would, please mail the upper portion of the 'Reality Orientation Time Schedule and Guidelines' sheet in the enclosed envelope. I appreciate your interest and participation in this study this summer and am now most anxious to obtain your record of visitation periods. Your record is needed not only as an individual indicator of your effect on your relative, but also as a critical entry in a minimally acceptable number to validate this study.

Thank you for your interest and concern. If you have any questions, please feel free to call me at 328-6988.

Sincerely,

Cheryl Steudtner

REFERENCES CITED

- Abdellah, F. and Levine, E. 1965. Better patient care through nursing research. New York: Macmillan Company.
- Andrew, W. 1971. The anatomy of aging in man and animals. New York: Grune and Stratton.
- Barnes, E. 1973. "The relationship between participation in a program of reality orientation and a decrease of confusion, and disorientation in geriatric patients in a long term care facility." Thesis, Texas Woman's University, Denton, Texas.
- Barnes, E., Sack, A., and Shore, H. 1973. Guidelines to treatment approaches-modalities and methods for use in the aged. The Gerontologist. 13:513-527.
- Bourne, G. 1960. Structural changes in aging. Genetics of Aging. p. 124. Edited by N. Shock. Baltimore: Horn-Shafer Company.
- Birren, J. 1968. Principles of research on aging. Middle Age and Aging. pp. 545-511. Edited by B. Neugarten. Chicago: University of Chicago Press.
- Brotman, H. 1971. Aging population up 63.1% in 20 years aging lifetime. Aging. 200:5.
- Botwinick, J. 1973. Aging and behavior. New York: Springer Publishing Company, Inc.
- Breen, L. 1960. The aging individual. Handbook of Social Gerontology. pp. 145-162. Edited by C. Tibbitts. Chicago: University of Chicago Press, 1960.
- Burgess, A., and Lazare, A. 1976. Psychiatric nursing in the hospital and the community. Englewood Cliffs, New Jersey: Prentice-Hall, Inc.
- Burnside, I. 1976. Nursing and the aged. New York: McGraw Hill Company.

- Busse, E. 1969. Theories of aging in behavior and adaptation in late life. Theories of Aging in Behavior and Adaptation in Late Life. Edited by E. Busse and E. Pfeiffer. Boston: Little, Brown, and Co.
- Busse, E., and Pfeiffer, E. 1969. Theories of aging in behavior and adaptation in late life. Boston: Little, Brown and Co.
- Butler, R. 1971. Clinical psychiatry in late life. Clinical Geriatrics. pp. 439-460. Edited by I. Rossman. Philadelphia: J. P. Lippincott o.
- _____. 1977. The grasping of america. Time Magazine. February 28, 1977.
- Butler, R., and Lewis, M. 1973. Aging and mental health. St. Louis: The C. V. Mosby Co.
- Citrin, R., and Dixore, D. 1977. Reality orientation. A milieu therapy used in an institution for the aged. The Gerontologist. 17:39-43.
- Comfort, A. 1956. Aging, the biology of senescence. New York: Holt, Rinehart & Winston, Inc.
- Cummings, E., and Henry, W. 1961. Growing old: the process of disengagement. New York: Basic Books, Inc.
- Dibner, A. 1975. The psychology of normal aging. Understanding Aging: A Multidisciplinary Approach. pp. 67-90. Edited by M. Spencer and C. Dorr. New York: Appleton-Century-Crofts.
- Duffy, B. 1975. Mental health and aging. Understanding Aging: A Multidisciplinary Approach. pp. 222-234. Edited by M. Spencer and C. Dorr. New York: Appleton-Century-Crofts.
- Eaton, M., and Peterson, M. 1969. Psychiatry. Medical Outline Series. Flushing, New York: Medical Examination Publishing Co., Inc.
- Erikson, E. 1972. Generativity and ego integrity. Middle Age and Aging. pp. 85-87. Edited by B. Neugarten. Chicago: University of Chicago Press.

- Fellen, P., Tripody, T., and Maye. H. 1969. Exemplars of social research. p. 139. Chicago: Peacock Publishers.
- Finch, C. 1976. Biological theories of aging. Nursing and the Aged. pp. 92-98. Edited by I. Burnside. New York: McGraw Hill Company.
- Folsom, J. 1966. Attitude therapy workshop. American Archives of Rehabilitation Therapy, pp. 21-23.
- _____. October-November 1967. Attitude therapy and the team approach. Faith at Work.
- _____. 1968. Reality orientation for the elderly mental patient. Journal of Geriatric Psychiatry. 1:291-307.
- Frances, G., and Munjas, B. 1975. Promoting psychological conflict. Dubuque, Iowa: William C. Brown Co.
- Glickman, L., and Freedman, S. 1976. Changes in behavior, mood, and thinking in the elderly. Medical Clinics of North America. 60:1297-1311.
- Gospard, N. 1970. The family of the patient with long term illness. Nursing Clinics of North America. 5:77-84.
- Gubrium, J., and Ksander, M. 1975. On multiple realities and reality orientation. The Gerontologist. 15: 142-145.
- Harrison, C. 1971. The patient that is and is not. Journal of Nursing Administration, pp. 44-50.
- Havighurst, R., Neugarten, B., and Tobin, S. 1972. Disengagement and patterns of aging. Middle Age and Aging. pp. 161-172. Edited by B. Neugarten. Chicago: University of Chicago Press.
- Hodkinson, H. 1975. An Outline of Geriatrics. London: Academic Press.
- Human, M. 1973. The aged psychiatric patient. Psycho-social Nursing Care of the Aged. pp. 84-95. Edited by I. Burnside. New York: McGraw Hill Book Co.

- Kahana, E., and Kahana, B. 1976. Health care facilities. Cowdry's, the Care of the Geriatric Patient. pp. 451-482. Edited by F. Steinberg. St. Louis: C. V. Mosby Co.
- Karp, H. 1975. Dementia in adults. Clinical Neurology Volume II. pp. 1-22. Edited by A. B. Baker and L. H. Baker. New York: Harper and Row, Publishers.
- Kent, S. 1976. How do we age? Geriatrics, pp. 123-134.
- Kohn, R. 1971. Principles of mammalian aging. New Jersey: Prentice-Hall, Inc.
- Lautner, H., and Meyer, J. 1968. Clinical and nosological concepts of senile dementia. Senile Dementia. pp. 13-26. Edited by C. Muller and H. Compi. Bern, Switzerland, Bern W. Rosch and Co.
- Lee, R. 1976. Self images of the elderly. Nursing Clinics of North America. 11:119-124.
- Lehman, E. 1974. Reality orientation. Nursing '74. 3: 61-62.
- Letcher, R., Peterson, L., and Scarborough, D. 1974. Reality orientation: a historical study of patient progress. Hospital and Community Psychiatry. 25: 810-803.
- Libow, L. 1973. Pseudo-senility: acute and reversible organic brain syndromes. Journal of the American Geriatrics Society. 21:112-119.
- Living Bible, Psalm 37:5.
- Lowenthal, M., and Boler, D. 1965. Voluntary vs. involuntary social withdrawal. Journal of Gerontology. 20: 363-371.
- Lowry, L. 1975. Social welfare and the aging. Understanding Aging: A Multidisciplinary Approach, pp. 134-178. Edited by M. Spencer and C. Dorr. New York: Appleton-Century-Crofts.
- Maddox, G., and Eisdorfer, C. 1962. Some correlates of activity and morale among the elderly. Social Forces. 40:254-260.

- Miller, M., and Harris, A. 1967. The chronically ill aged: paradoxical patient-family behavior. Journal of American Geriatrics Society. 15:480-495.
- Miller, M. 1969. The chronically ill age, family conflict, and family medicine. Journal of American Geriatrics Society. 17:950-951.
- Ness, K. 1973. The sick role of the elderly. Psychosocial Nursing Care of the Aged. pp. 55-71. Edited by I. Burnside. New York: McGraw Hill Book Co.
- Neugarten, B., Havighurst, R., and Tobin, S. 1972. Personality and patterns of aging. Middle Age and Aging. pp. 173-177. Edited by B. Neugarten. Chicago: University of Chicago Press.
- Nursing Service, Tuscaloosa Veterans Administration Hospital. "Guide for reality orientation." Tuscaloosa, Alabama. 1970. (Mimeographed).
- _____, Tuscaloosa Veterans Administration Hospital. "Guide for reality orientation." Tuscaloosa, Alabama. 1974. (Mimeographed).
- Ornstein, S. 1970. A program of staff-resident interaction to diminish the negative effects of institutionalization. ANA Clinical Sessions. pp. 55-70. New York: Appleton-Century-Crofts.
- Oberleder, M. 1969. Emotional breakdown in the elderly. Hospital and Community Psychiatry. 20:21-25.
- Palmore, E. 1969. Sociological aspects of aging. Behavior and Adaptation in Late Life. pp. 33-69. Edited by E. Busse and E. Pfeiffer. Boston: Little, Brown and Co.
- Peck, R. 1972. Psychological developments in the second half of life. Middle Age and Aging. pp. 80-92. Edited by B. Neugarten. Chicago: University of Chicago Press.
- Phillips, D. 1973. Reality orientation: a new therapeutic mode. Hospitals. 47:46-49.

- Pohl, M. 1968. The teaching function of the Nursing practitioner. Iowa: William C. Brown Co.
- Polansky, G. 1973. Questions and responses. Mental Illness in Later Life. Edited by E. Busse and E. Pfeiffer. Washington, D.C.: American Psychiatric Association, 1973.
- Redman, B. 1972. The process of patient teaching in nursing. St. Louis: The C. V. Mosby Co.
- _____. 1976. Guidelines for quality of care in patient education. Nursing Digest, pp. 25-26.
- Reitan, R. 1967. Psychologic changes associated with aging and with cerebral damage. Mayo Clinic Proceedings. 42:653-673.
- Rivera, V., and Meyer, J. 1975. Dementia and cerebrovascular disease. Modern Concepts of Cerebrovascular Disease. pp. 135-138. Edited by J. Meyer. New York: Spectrum Publications.
- Rosenow, A., and Long, J. 1972. Introduction. Caring for and Caring About Elderly People. pp. 1-7. Edited by J. Long. Rochester, New York: Rochester Regional Medical Program.
- Scarbrough, D. 1974. Reality orientation: a new approach to an old problem. Nursing '74, pp. 12-14.
- Scherz, F. 1966. Family treatment concepts. Social Case Work. 47:234-256.
- Shock, N., ed. 1960. Aging: some social and biological aspects. Washington, D.C.: American Association Advanced Science.
- Siegel, S. 1956. Nonparametric statistics for the behavioral sciences. New York: McGraw Hill Book Co.
- Sinex, F. 1975. The biochemistry of aging. Understanding Aging: A Multidisciplinary Approach. pp. 21-39. Edited by M. Spencer and C. Dorr. New York: Appleton-Century-Crofts.

- Smith, B., and Sethi, P. 1975. Aging and the nervous system. Geriatrics. 109:112-115.
- Spencer, M., and Dorr, C. 1975. Understanding aging: a multidisciplinary approach. New York: Appleton-Century-Crofts.
- Stephens, L. P. compiler. 1969. Reality Orientation. A technique to rehabilitate elderly and brain damaged patients with a moderate to severe degree of disorientation. Washington, D.C.: American Psychiatric Association.
- Strauss, A. 1975. Chronic illness and the quality of life. St. Louis: The C. V. Mosby Co.
- Strow, C., and MacKreth, R. 1977. Family group meetings strengthening a partnership. Journal of Gerontological Nursing. 3:30-35.
- Strehler, B. 1971. Aging at the cellular level. Clinical Geriatrics. pp. 49-84. Edited by I. Rossman. Philadelphia: J. P. Lippincott Co.
- Tangari, A. 1974. Family involvement in the treatment of a psychiatric in-patient. Hospital and Community Psychiatry. 25:792-794.
- Taulbee, L. 1968. R_x nursing intervention for confusion of the elderly. Alabama Nurse. 22:1-3.
- _____. 1976. Reality orientation and the aged. Nursing and the Aged. pp. 245-254. Edited by I. Burnside. New York: McGraw Hill Book Co.
- Tomlinson, B., Blessed, G., and Roth, M. 1970. Observations on the brains of demented old people. Journal of Neurological Sciences. 11:205-242.
- Treece, E., and Treece, J. 1973. Elements of research in nursing. St. Louis: The C. V. Mosby Co.
- U. S. Department of Health, Education, and Welfare, Public Health Service. 1974. Working with older people, a guide to practice, Volume I. Rockville, Maryland.

- _____. 1974. Working with older people, a guide to practice, Volume II. Rockville, Maryland.
- _____. 1974. Working with older people, a guide to practice, Volume III. Rockville, Maryland.
- Verwoerd, A. 1976. Clinical geropsychiatry. Baltimore, Maryland: Williams & Wilkins Company.
- Veterans Administration Hospital. 1972. Guide to attitude therapy. Tuscaloosa, Alabama: Veterans Administration Hospital.
- _____. 1975. Reality orientation training program. THE ROPE, Volume 3. Tuscaloosa, Alabama: Veterans Administration Hospital.
- Vogel, F. S. 1969. The brain and time. Behavior and Adaptation in Late Life. pp. 251-262. Edited by E. Busse and E. Pfeiffer. Boston: Little, Brown and Co.
- Vosburgh, P. 1969. Conference report-treating the psychologically disturbed geriatric patient. Hospital and Community Psychiatry. 20:7-14.
- Wahl, P. 1976. Psychosocial implications of disorientation in the elderly. Nursing Clinics of North America. 11:145-156.
- Wang, J. S. 1969. Organic brain syndromes. Behavior and Adaptation in Late Life. pp. 263-287. Edited by E. Busse and E. Pfeiffer. Boston: Little, Brown and Company.
- _____. 1972. Organic brain syndrome in the elderly: a re-evaluation of concepts. Post Graduate Medicine. 2:237-244.
- Wallen, V. 1970. Motivation therapy with the aging geriatric veteran patient. Military Medicine. 135:1007-1010.
- Weinberg, J. 1970. Understanding mentally confused elderly persons. Post Graduate Medicine. 47:116-119.