

INFORMATION TO USERS

This manuscript has been reproduced from the microfilm master. UMI films the text directly from the original or copy submitted. Thus, some thesis and dissertation copies are in typewriter face, while others may be from any type of computer printer.

The quality of this reproduction is dependent upon the quality of the copy submitted. Broken or indistinct print, colored or poor quality illustrations and photographs, print bleedthrough, substandard margins, and improper alignment can adversely affect reproduction.

In the unlikely event that the author did not send UMI a complete manuscript and there are missing pages, these will be noted. Also, if unauthorized copyright material had to be removed, a note will indicate the deletion.

Oversize materials (e.g., maps, drawings, charts) are reproduced by sectioning the original, beginning at the upper left-hand corner and continuing from left to right in equal sections with small overlaps.

Photographs included in the original manuscript have been reproduced xerographically in this copy. Higher quality 6" x 9" black and white photographic prints are available for any photographs or illustrations appearing in this copy for an additional charge. Contact UMI directly to order.

**Bell & Howell Information and Learning
300 North Zeeb Road, Ann Arbor, MI 48106-1346 USA
800-521-0600**

UMI[®]

**THE EVALUATION OF AN ALZHEIMER'S DISEASE
SPECIAL CARE UNIT FOR IMPACT ON RESIDENT
BEHAVIOR, FUNCTIONAL AND MENTAL STATUS
AND FAMILY PERCEPTION OF EFFECTIVENESS**

BY

SUSAN E. ROSS

**A Thesis
Submitted to the Faculty of Graduate Studies
in Partial Fulfillment of the Requirements
for the Degree of
Master of Social Work**

**Faculty of Social Work
University of Manitoba
Winnipeg, Manitoba**

© September, 1999



**National Library
of Canada**

**Acquisitions and
Bibliographic Services**

**395 Wellington Street
Ottawa ON K1A 0N4
Canada**

**Bibliothèque nationale
du Canada**

**Acquisitions et
services bibliographiques**

**395, rue Wellington
Ottawa ON K1A 0N4
Canada**

Your file Votre référence

Our file Notre référence

The author has granted a non-exclusive licence allowing the National Library of Canada to reproduce, loan, distribute or sell copies of this thesis in microform, paper or electronic formats.

The author retains ownership of the copyright in this thesis. Neither the thesis nor substantial extracts from it may be printed or otherwise reproduced without the author's permission.

L'auteur a accordé une licence non exclusive permettant à la Bibliothèque nationale du Canada de reproduire, prêter, distribuer ou vendre des copies de cette thèse sous la forme de microfiche/film, de reproduction sur papier ou sur format électronique.

L'auteur conserve la propriété du droit d'auteur qui protège cette thèse. Ni la thèse ni des extraits substantiels de celle-ci ne doivent être imprimés ou autrement reproduits sans son autorisation.

0-612-45120-8

Canada

**THE UNIVERSITY OF MANITOBA
FACULTY OF GRADUATE STUDIES

COPYRIGHT PERMISSION PAGE**

**The Evaluation of an Alzheimer's Disease Special Care Unit for Impact on
Resident Behavior, Functional and Mental Status and
Family Perception of Effectiveness**

BY

Susan E. Ross

**A Thesis/Practicum submitted to the Faculty of Graduate Studies of The University
of Manitoba in partial fulfillment of the requirements of the degree
of
Master of Social Work**

SUSAN E. ROSS©1999

Permission has been granted to the Library of The University of Manitoba to lend or sell copies of this thesis/practicum, to the National Library of Canada to microfilm this thesis and to lend or sell copies of the film, and to Dissertations Abstracts International to publish an abstract of this thesis/practicum.

The author reserves other publication rights, and neither this thesis/practicum nor extensive extracts from it may be printed or otherwise reproduced without the author's written permission.

Abstract

The Special Care Unit as an alternative to traditional care for residents of Personal Care Homes who suffer from Alzheimer's Disease (AD) and related disorders has proliferated in the USA while Canada has seen this trend developing over the past ten years. The primary features of the SCU are its small size, its home-like atmosphere, the staff to resident ratio, the special training for staff in working with AD residents, the multi-skilling of staff, access to outdoors and the involvement of families on the unit.

The Sharon Home Inc., a 229 bed Personal Care Home located in Winnipeg's north end, has been operating a 14 bed SCU since the fall of 1997. Has the unit been effective in maintaining or improving the residents' mental, functional and behavioral status and do family members perceive the unit to be effective?

In the survey portion of the evaluation, family members responded favorably to the unit. Family members were pleased with the flexibility in the meal service, the professional nursing care and the provision for safe wandering yet felt the unit was understaffed. Families felt that those features of the SCU that relate to the staff such as staff to resident ratio, training and multi-skilling of staff were more important than the home-like design, access to outdoors and involvement of families on the unit.

Analysis of the retrospective baseline study results showed the unit to be effective in maintaining or improving functional status and only partially effective in improving behavioral status. Changes in mental status could not be determined due to lack of baseline data. Positive results were seen in improved resident weight.

While results are limited due to the small sample size and the retrospective design of the study, they should serve as a basis for further evaluation of SCUs and their effects on staff, residents and families.

Acknowledgments

I would like to take this opportunity to sincerely thank the following people for their assistance and encouragement:

Professor Sharon Taylor-Henley of the Faculty of Social Work, my thesis chairperson and advisor. Without her assistance and guidance this thesis would not have been possible.

Dr. Brad McKenzie of the Faculty of Social Work and Professor Evelyn Shapiro of the Department of Community Health Sciences for their time and valuable input as thesis committee members.

To my friends and colleagues at the Sharon Home for encouraging me in the pursuit of my degree and allowing me the time away from work to complete my course requirements.

A special thank you to my husband Steve for his patience, love and support and to my long time friends who tolerated my neglect of them over the past months.

To the University of Manitoba Statistical Advisory Service for their technical support.

Table of Contents

| | Page |
|---|-------------|
| Abstract | i |
| Acknowledgments | iii |
| List of Tables | vi |
| Chapter 1 Overview | 1 |
| 1.1 Introduction | 1 |
| 1.2 Definition and incidence of Alzheimer's Disease | 1 |
| 1.3 Historical Perspective | 3 |
| 1.4 Models of Care | 4 |
| 1.5 Components of Special Care Units | 10 |
| Chapter 2 Review of the Literature | 15 |
| 2.1 Impact of Special Care Units on residents | 15 |
| 2.2 Impact of Special Care Units on staff | 20 |
| 2.3 Impact of Special Care Units family members | 22 |
| 2.4 The problem of bias in Special Care Unit Research | 25 |
| 2.5 Summary | 30 |
| Chapter 3 Research Design | 33 |
| 3.1 Research Site | 33 |
| 3.2 Purpose | 36 |

| | | |
|------------------|---|------------|
| 3.3 | Research Questions and Hypotheses | 37 |
| 3.4 | Research Design and Methodology | 38 |
| 3.5 | Data Collection and Analysis | 41 |
| 3.6 | Limitations | 46 |
| Chapter 4 | Results | 48 |
| 4.1 | Family Perception Survey results | 48 |
| 4.1.1 | Quantitative Analysis of Family Perception Survey results | 48 |
| 4.1.2 | Qualitative Analysis of Family Perception Survey results | 55 |
| 4.1.3 | Ranking of SCU features | 81 |
| 4.1.4 | Retrospective Baseline study results | 82 |
| Chapter 5 | Discussion | 106 |
| Chapter 6 | Implications | 113 |
| 6.1 | Implications for Sharon Home | 113 |
| 6.2 | Implications for further research | 116 |
| | References | 118 |
| | Appendices | 127 |
| Appendix A: | Consent | 127 |
| Appendix B: | Measurement Tools | 130 |
| Appendix C: | Family Perception Survey | 136 |
| Appendix D: | Data sheets | 145 |

| List of Tables | Page |
|---|-------------|
| Table 1: Family Perception Survey Responses- physical design | 49 |
| Table 2: Family Perception Survey Responses-recreation programming | 51 |
| Table 3: Family Perception Survey Responses- food service | 52 |
| Table 4: Family Perception Survey Responses-care provided | 53 |
| Table 5: Family Perception Survey Responses-impact on mental, physical and behavioral status | 54 |
| Table 6: Ranking of SCU features | 81 |
| Table 7: Baseline study scores for Moore’s functional dementia scale | 84 |
| Table 8: Baseline study scores for level of care | 85 |
| Table 9: Baseline study scores for weight | 87 |
| Table 10: Baseline study scores for episodes of sleep disturbance | 88 |
| Table 11: Baseline study scores for episodes of wandering/pacing/exit seeking | 90 |
| Table 12: Baseline study scores for number of falls | 91 |
| Table 13: Baseline study scores for number of injuries | 93 |
| Table 14: Baseline study scores for number of altercations | 94 |
| Table 15: Baseline study scores for episodes of agitated behavior | 95 |
| Table 16: Baseline study scores for episodes of aggressive behavior | 97 |
| Table 17: Baseline study scores for episodes of restraint use | 98 |

| | |
|--|------------|
| Table 18: Baseline study scores for psychotropic medication use | 99 |
| Table 19: Baseline study scores for participation in therapeutic recreation | 101 |
| Table 20: Baseline study scores for private companion service | 103 |
| Table 21: Baseline study scores for number of hospitalizations | 104 |
| Table 22: Changes in variables post SCU | 111 |

Chapter 1

Overview

1.1 Introduction

Alzheimer's disease (AD) is the fourth leading cause of death of older persons (McCracken, 1994). With an estimated course of eight years, beginning with the onset of symptoms, the disease exhausts physical and emotional resources of families as it progresses. Families frequently turn to nursing homes to provide the care that they are unable to provide during the later stages of the disease. Providing responsive institutional care for the increasing numbers of people with progressive dementia has become a challenge to service providers, families and politicians. Since the mid 1970's, the primary response to the challenge has been the proliferation of the Special Care Unit (SCU). While Special Care Units are becoming more prevalent, limited research has been done to evaluate the effects of the SCU environment and programming on residents, staff and family members.

1.2 Definition and Incidence of Alzheimer's Disease

Dementia is a syndrome characterized by cognitive changes including disturbances of memory, language use, perception, learning, problem solving, abstract thinking ability and judgment. In some victims, personality is affected as well. Some show paranoid symptoms and are delusional. Irritability, agitation, verbal and physical aggression

towards family members may be exhibited as the disease progresses and victims feel less and less in control of themselves and their environments.

Dementia is primarily a disorder of the elderly with prevalence increasing markedly with age. Population projections indicate the expected size of the population for Manitobans over the age of 65 to increase from 146,605 in 1991 to 231,200 by 2021. It is expected that there will be 29,900 persons aged 85 and over in Manitoba by 2021, nearly twice as many as in 1991. Between 1991 and 2001, the 85 and over age group is expected to be the fastest growing segment of the older population, with a 44.8% increase in the size of that group. Between 2001-2011, the 55 to 64 age group is expected to increase by 45.6% and the 65 to 74 age group is expected to increase by 46.9% (Statistics Canada, 1992; Manitoba Bureau of Statistics, 1994).

According to the 1991-92 Manitoba Study of Health and Aging, in Manitoba, the total number of individuals affected by dementia of all types is 82/1,000 of those 65 years of age and over. Broken down into age groups, the 65 - 74 group rate is 27/1,000, those 75 - 84 have a rate of 86/1,000 and the 85 + group is at a rate of 370/1,000. As the elderly population continues to increase, so will the numbers of those suffering from dementia. The inability to perform self care functions and other activities of daily living seen in the later stages of dementia will probably precipitate the need for institutional care. In most reports, the cognitive and functional deficits characteristic of dementia emerge as strong predictors of placement. (Shapiro & Tate, 1985 and 1991) Given the role of dementia as a reason for institutional care, it is understandable that a high proportion of long term care facility residents have dementing disorders. While there are no projections for future

personal care home use, as of March 31, 1994, there were 1,292 Manitobans of all ages waiting placement in personal care homes. (Manitoba Health, 1994, p.16.) This number will no doubt project upward as the population ages and dementia sufferers increase.

The debate in the literature has been whether persons with Alzheimer's Disease should be located in a segregated unit or be integrated with the cognitively intact residents of the facility. Based on the growing belief that special units should be established for AD sufferers, the proliferation of special units has been enormous (Ohta & Ohta, 1988). As Dorothy Coons points out, in the United States, "Probably few developments in the health care arena have moved with the speed and unstructured abandon of the proliferation of new Alzheimer's or dementia care units around the country" (Coons, 1991).

1.3 Historical perspective

Prior to the psychiatric deinstitutionalization movement of the 1950's and 1960's, many persons with dementia were housed with the insane (Hall & Buckwalter, 1990). In the United States, with the emptying of the state mental hospitals, care of persons with dementia became an acute societal problem. The progressive functional and cognitive impairments of persons with AD, the lack of supportive and dementia-specific services at the time, and the burden placed on family caregivers often prohibited care in home or other community based settings. Persons with AD were frequently moved from asylums to nursing homes, where the majority of their care was custodial in nature.

Coons (1983), Danford (1982) and Lawton (1972 and 1980) pioneered the study of the effects of the environment on behavior in this population, and their work prompted a

series of investigations of rehabilitative interventions (e.g.) reality orientation, pet and music therapies, and behavioral and psychotherapies) designed to improve care for the institutionalized person with dementia. More recently, Hall, Kirschchling & Toss, (1986), Johnson, (1989) and Kane, (1987) suggested that integrating demented and nondemented residents may violate the rights of both parties, creating conflicts that potentially can compromise both quality of life and safety.

In 1974, the Philadelphia Geriatric Centre in Philadelphia, Pennsylvania created the first unit to meet the special needs of cognitively impaired persons. By 1987 there were 1,668 special care units and 1,444 additional units in the planning stages despite the lack of rigorous research on the outcome of the special care approach (Leon, 1991). The philosophy of care in these units shifted away from the medical model of care whereby care was custodial in nature toward one that is person centered, individualized and holistic in nature.

1.4 Models of Care

The Medical Model

The Medical Model in dementia care is based on three assumptions. First, the medical model is based on the Cartesian idea that the mind and the body are separate entities. Second, it reduces the understanding of the disease into measurable, biological variables which deviate from the norm. Third, the medical model defines dementia in terms of progressive cognitive impairment associated with corresponding stages of impairment (Bond, 1992).

In the Medical Model, the diagnosis of dementia leads to a prescription for basic custodial care often assisted with drugs for the treatment of behavioral symptoms such as agitation (Lyman, 1989). The focus of treatment is on the pathology, and behavior is interpreted according to disease stage attributions. This limits the therapeutic potential of caregiving because it assumes that behavior can be explained by the progression of stage specific symptoms which may or may not occur in the context of one's experience. There is considerable variability among people with dementia and there is often little conformity to any predetermined stage-like progression.

Many nursing homes have adopted the medical model to guide organizational structures, processes, and therapeutic programming. As a result, traditional nursing homes often resemble hospitals rather than homes with an emphasis on pathology, illness, and physical aspects of care rather than function, daily living and quality of life. Traditional nursing home care views residents with AD as "problem patients" who are the most difficult to manage. The emphasis of staff training is on the cognitive deficits of these patients and management strategies usually involve the use of medications and various types of restraints used to control AD patients. Most frequently selected drugs are tranquilizers to help with what are perceived as organically based behaviors of sleeplessness, agitation and paranoia (Johnson, 1989). Johnson suggests that these drugs may be given not so much for the AD resident as for the benefit of the staff and/or family in their attempts to control "negative" behaviors of the AD patient, not to cure AD.

Traditional nursing homes place the AD person on the same unit as the cognitively intact resident, however, the AD resident tends to invade the privacy of the non demented

resident. AD patients may wander the hallways leading to unlocked doors into other people's rooms or, more seriously dangerous, out into the street. Those residents not supervised closely enough may get hit by cars or get lost/ frozen or drowned. The cognitively intact resident often suffers from lost or damaged property, decreased socialization, interrupted sleep, and fear of physical harm by the AD patient. The continual hallway design of the nursing home invites uninterrupted pacing by the AD person because it gives no clues to stop and rest.

Other "problem" behaviors of AD patients in these settings may include: combative behavior; paranoid ideation, hallucinating, pacing or compulsively changing things about; using repetitive movements; a shift in gait where walking becomes more difficult; a change in sleep patterns (they sleep more or less, usually less); a shortened attention span; a change in speech, a decline in hygienic routines; an increase in visual-motor problems which are heightened by glossy floors and mirrors; and in later stages there is non-recognition of loved ones, incontinence, weight loss and becoming mute. All these behaviors are believed to be the result of organic decline in brain functions.

In order to maintain safety and to manage the behaviors of the AD resident, staff spend their time walking with the resident, simply medicating the resident, or restraining the resident to a bed or chair during the day. As a result, the resident socially withdraws. At night, the staff controls the "sundowning" of AD residents by a combination of sleep medications, physical restraints, or placing bed railing up so high as to discourage the resident from crawling out of bed. The end result of these traditional interventions may be: that the tranquilizers may become counter indicative, or decrease the AD resident's

mobility and/or appetite; AD residents are often excluded from planned activities (decreased socialization); family and friends feel negative about the physical restraints or drugged condition of a loved one (and may decrease visiting) and AD residents have increased fear and agitation leading to increased restraints or drugs (Johnson, 1989).

Because the medical model was developed mostly for short stay hospitalizations and most nursing home stays are long term, the model fails to adequately address many of the most troublesome problems associated with life in nursing homes. For persons with AD, the model often is not useful because there is no medical treatment other than some symptom-controlling medications.

Person-Environment Fit Model

With the opening of specialized treatment units for persons with AD in the 1970's came acceptance of the concept of person-environment fit as advocated by Lawton (1972 and 1980). This concept is derived from systems theory, which emphasizes the inter-relatedness of systems and their subsystems. Lawton theorizes that people with dementia are highly responsive to changes which reduce stressors in their environment. Therapeutic interventions thus focus on facilitating accommodation by modifying the environment to reduce demand on the AD resident's cognitive abilities. Within this model is the concept of the AD resident's need for increased environmental stimuli to correct cognitive and functional deficits. This remains a controversial issue as there is also evidence to suggest that AD residents spontaneously attempt to reduce environmental stimuli by isolating themselves from other persons (Maas, Buckwalter &

Swanson, 1993).

Being a sociological perspective, the model has also been used to explain the importance of interaction of caregivers, family members, and staff with AD residents and the significance of role changes in the ongoing care of residents with AD. The person-environment interaction framework provides rationale for the need for staff and family education, therapeutic communication, and attention to the family and staff role relationships in the care of residents in Special Care Units. (Maas et al. 1993). The model also points to institutional barriers, such as structures, policies, regulations and staff attitudes and behaviors that are not responsive to the family members' needs and to resources for maintaining involvement in the resident's care (Buckwalter, 1990). The model provides an orientation to the patient as a member of a family unit and highlights the importance of nurses' interactions with family members to provide clarity of role, facilitate role transitions, and reduce institutional barriers that often interfere with satisfying family member participation in the AD residents' care (Buckwalter, 1990).

Progressive Lowered Stress Threshold Model

From the notion of person-environment fit and interaction, Hall and Buckwalter (1987) proposed a Progressive Lowered Stress Threshold Model (PLST) which advocates for the modification of environmental demands on the AD residents. Stress from environmental and internal demands causes the AD resident to be anxious. If the stressful stimuli are allowed to continue or to increase, the resident's behavior becomes increasingly dysfunctional and often catastrophic (suddenly occurring emotional behavioral responses that are out of proportion to the stimulus). The PLST model

emphasizes reducing stress by modifying environmental demands, thereby promoting functional adaptive behavior on the part of persons with AD. This model, revised somewhat to include the notion of controlled or managed environmental stimuli, which are tailored more specifically to individual victims of AD, has provided the conceptual framework for the development of many SCUs and for research to evaluate the effects of SCUs on residents, families, and staff caregivers (Hall, Kirshchling & Todd, 1986; Maas & Buckwalter, 1991).

Rehabilitation Model

The Rehabilitation Model emphasizes strategies such as increased sensory input, reality orientation therapy, skills remediation, pet, art, music and exercise therapy, remotivation groups, reeducation in activities of daily living and individual or group psychotherapies. A number of programs for AD residents have been developed based on the notion that rehabilitative strategies can slow or reverse the progressive deterioration of cognitive, physical, and social function (Buckwalter, 1990).

Psychosocial Model

The Psychosocial Model of care, in contrast to the Medical Model, emphasizes the whole person and is more appropriate when dealing with person with chronic illnesses, especially when behavioral problems are a primary concern (Peppard, 1991). Although resident safety and treatment of disability remain important concerns, the Psychosocial Model focuses more on maximizing functional abilities so that individuals can continue to enjoy as much independence and social activities as possible. The associated risks are

considered necessary for individuals to maintain optimum functioning and quality of life. Using the Psychosocial Model, care is provided at the individual's pace, and activities are designed according to the individual's interests and abilities. All activities are guided by the goal of maintenance of dignity and quality of life (Maas, Buckwalter, Swanson & Specht, 1994).

1.5 Components of Special Care Units

While there are a number of theoretical frameworks being used to guide the development of Special Care units, there are also many differences in philosophy, staffing, admission criteria, physical environment and programming among nursing home Special Care Units. Debate also continues as to whether persons at all stages of the disease should be housed on a single unit or whether there should be separate units for persons with early to middle stage dementia and late stage dementia. There is general agreement however that a Special Care Unit does not mean just segregation and some agreement about the features that make a Special Care Unit special. Maas et al. (1994) summarized close to 100 journal articles and books written between 1977-1991 about Special Care Units and concluded that there are five generally accepted features of Special Care Units.

These five features include:

- 1) admission of residents with cognitive impairment, most often caused by AD;
- 2) special staff specification, selection and training;
- 3) activity programming for the cognitively impaired;
- 4) family programming and involvement;

5) segregated and modified physical and social environment.

Maas et al. (1994) summarized the literature including all aspects of the Special Care Unit including activities, nursing care, physical design, staffing, admission and discharge criteria, family programming and quality and cost assessment.

The goals of activity programming on a Special Care Unit include:

- 1) providing activities appropriate for the cognitive and functional abilities of AD residents;
- 2) emphasizing activities relative to interests, strengths, values and heritage of persons with AD; and
- 3) providing individual and group activities to promote socialization, exercise, reminiscing, and sensory enjoyment

Activities becomes one of the mainstays of Special Care Unit programming because it is through activities that residents are kept occupied and purposefully engaged. Activities provide the means for exercise other than wandering and pacing and a variety of enjoyable visual, auditory and tactile experiences. These activities prevent boredom and agitation that result from pacing, rummaging, and other disruptive behaviors.

The goals of Resident Care on a Special Care Unit include:

- 1) providing a consistent care routine based on individual needs, while remaining flexible to changes in the resident's condition and behavior;

- 2) flexibility in assisting with all activities of daily living and use of the concept of
- 3) unconditional positive regard whether the resident is cooperative and pleasant or disruptive and hostile;
- 4) providing care at a time when the patient can accept it or is most able to perform his or her own self care;
- 5) use of psychoactive medications is discouraged as chemical restraints and are used selectively to control behavioral symptoms that interfere with the resident's function or comfort;
- 6) management of catastrophic reactions by alteration of the stressful situations to fit the abilities of the resident; and
- 7) maintenance of the safety of the resident without unduly restricting their activity and behavior

Modification of the physical environment should include:

- 1) reduction of overwhelming and disturbing stimuli, for example, noise, glare, congestion;
- 2) provision for safe wandering;
- 3) access to outdoor when weather permits;
- 4) environmental cues to support memory;
- 5) visual, musical, tactile and other sensory stimulation; and
- 6) promote resident function and safety, to create a home-like atmosphere and enhance family visiting and involvement, and to provide a pleasant, functional workplace for staff who may not receive positive feedback from the residents and who must deal

with difficult resident behaviors on a daily basis

Staff Specification, Selection and Training for a Special Care Unit should include:

- 1) a team of staff including administrators, nurses, social workers, activity therapists, and in some settings, occupational therapists, rehabilitation therapists, dietitians, pastors, medical and psychiatric consultants, and family members;**
- 2) a staff to resident ratio of 1:4 to 1:6, reflecting heavy resident care needs;**
- 3) a ratio of registered professional nurses of no less than 1:15 for ongoing support, training and role modeling to nonprofessional staff caregivers;**
- 4) recruitment of staff with the expectation that specialized, skill care will be required;**
- 5) selection of staff based on their commitment to the unique care demands of the AD resident;**
- 6) training of staff including causes of dementia and resulting behaviors, effects of those behaviors on caregivers (staff and families) and the appropriate principles and techniques of providing care for the resident with AD; and**
- 7) incorporation of strategies to combat staff burnout.**

Admission and discharge criteria to the Special Care Unit should include:

- 1) a diagnosis of dementia made from a comprehensive diagnostic evaluation to rule out reversible dementia and depression that may be misdiagnoses as AD;**
- 2) a pre-admission assessment carried out by staff to determine whether the resident can be cared for on the Special Care Unit and to begin planning the program of care; and**

- 3) communication of the discharge policy to family members when admission to the Special Care Unit is sought.

Family programming on a Special Care Unit should include:

- 1) a program of support for families that begins when the first contact for admission of a relative with AD is made;
- 2) thorough orientation of the family to the physical environment and to policies that govern the resident care programming; and
- 3) participation of family caregivers in the care of the residents encouraged.

Quality and Cost Assessment of the Special Care Unit should include:

- 1) a comprehensive quality assurance program designed to assess critical indicators of quality; and
- 2) a system whereby cost effectiveness of Special Care Units can be assessed (to date there is little data available for assessing cost effectiveness).

Given the prevalence of Alzheimer's Disease and the aging of the population, there is clearly a need to meet the challenge of caring for residents with dementia in Nursing Homes. An evaluation of the Sharon Home SCU will attempt to determine if the unit is effective in improving or maintaining the residents' mental, physical and behavioral status as well as examining family members perceptions of the unit's effectiveness. It is hoped that the information and insight gained from the evaluation will advance the knowledge base of care for victims of Alzheimer's Disease and related disorders.

Chapter 2

Special Care Unit Research Literature Review

2.1 Impact of Special Care Units on demented residents

A review of the literature describing research done on the effectiveness of SCUs can be essentially summarized into three main categories:

- 1) The impact of SCUs on demented residents with the unit with outcome measures including cognitive impairment, functional impairment, affect/mood, behavior, comfort, freedom from restraint, incidence of falls and injuries, family visitation rates, social participation and service utilization.
- 2) The impact of SCUs on family members with outcome measures including burden, stress, uplift, psychological well being, involvement, satisfaction with care, perception of staff and evaluation of the unit.
- 3) The impact of SCUs on staff with outcome measures including level of training, level of knowledge of dementia, job satisfaction, stress, morale, absenteeism, turnover, attitude toward residents, staff/resident interaction, perception of administrative support and commitment to the unit.

Many of the studies of impact of the SCU on demented residents have used a pre-test post-test design. Kujawinski et al (1993) measured the effect of the therapeutic milieu on the cognitive and functional status of twenty one geropsychiatric patients over a six month period. The Mini Mental Status Exam (MMSE) was used to assess the cognitive function of the residents and was administered twenty four hours prior to

admission and again twenty four hours after discharge. The Geriatric Psychiatry Nursing Rating Scale (GPNRS) was used to assess functional status. It was administered three times, within the first five days of admission, within five days prior to discharge and within two weeks after discharge. "Data suggested that a positive change was seen in the geropsychiatric patient's cognitive and functional assessment scores."

Kovach and Stearns (1994) also measured resident behaviors using a pre-test post-test design. Data was collected using the BEHAVE-AD rating scale one month prior to admission and two months post admission. They also rated how troubling the residents' symptoms were to the caregiver and how dangerous the symptoms were to the resident using a Likert type scale. Restraint use, both physical and chemical, was also documented. Of the eight behaviors measured, seven showed improvement. For restraint use, five subjects decreased their need, six remained the same and four subjects increased their need for physical restraint. No subjects decreased their use of chemical restraints during the study period.

A 1987 study (Benson et al.) used a pre-test post-test design to examine SCU impact on thirty two subjects over a twelve month period. The rating scale used was adapted from a scale that consisted of seventy eight observational items to evaluate mental and emotional status, basic functions of daily living and sensory function. The researchers also used the State Health Long Term Care placement Form, a standardized assessment used to predict the level of functioning and nursing needs for placement purposes. Results showed an increased level of functioning in both mental and emotional status and basic functions of daily living at both four and twelve months. There was no change noted on

the New York State assessment.

Martichuski, Bell and Bradshaw (1996) studied the impact of small group activities in SCUs on resident behavior. Three groups of residents from three nursing homes were assessed on a weekly basis for sixteen consecutive weeks, four weeks prior to program implementation and twelve weeks after implementation. The thirty seven item Behavior Mapping Checklist was used. Residents were rated according to degree of dementia using the FAST version of the Global Deterioration Scale. Results showed no difference between the three facilities in the severity of dementia according to the FAST/Global Deterioration Scale. Expected behavior changes were not found in a number of cases. Staff response to residents showed a decrease in two of the facilities. Physical and chemical restraints were decreased.

McCracken and Fitzwater (1990) studied eleven persons on a SCU over a twelve month period. Scores were taken upon admission to the unit and monthly over the twelve months and changes to the scores examined. The Haycox Dementia Rating Scale was used to measure behavior. On admission, the eleven residents functioned best in motor coordination and worst in dressing/grooming. A year later, average scores had improved in all categories except motor coordination and dressing/grooming.

Another common study design being used in SCU research is the comparative outcome approach. Coleman et al. (1990) compared hospitalization rates between residents in SCUs, traditional nursing home units and non demented residents of the same 116 bed Home. The study population consisted of 105 residents residing in the nursing home for a one year period who were divided into the three groups. The Reisburg Global

Deterioration Scale was used to evaluate level of cognitive decline. Functional status was measured with the Katz Index of Activities of Daily Living based on written assessments of resident functional and cognitive status routinely completed by nursing staff. Further information was gathered from medical record extraction. Hospitalization records were examined for all residents who were hospitalized during the study period and results pointed to a trend of greater hospitalization for SCU residents rather than a decrease as was hypothesized.

A 1994 study (Volicer et al.) compared outcomes of residents on a SCU with those on a traditional unit in a two year study of separate sites. Data was collected regarding disease severity, resident discomfort, use of medical resources and mortality rate. Discomfort was measured with the Discomfort Scale for Patients with Advanced Dementia of the Alzheimer Type (DS-DAT) and was administered monthly to all subjects. Severity of DAT was measured with the Bedford Alzheimer Nursing Scale (BANS). Cognitive impairment was measured by the MMSE. Speech ability was measured with a modified Boston Aphasic Diagnostic Evaluation. Costs for medication, procedures and diagnostic tests were also measured as well as mortality rates. The results were favorable to SCUs in terms of resource utilization and patient discomfort but not mortality rates.

Holmes et al. (1990) did a longitudinal assessment of the characteristics of SCU residents compared with residents on a traditional unit. The study took place at four facilities and involved 199 subjects. Three instruments were used: the Patient Screening Instrument, the Patient Extended Interview and the Patient Informant Interview devised

directed from the INCARE (Institutional Comprehensive Assessment and Referral Evaluation). Embedded in the INCARE are items or scales from other instruments: ADL items, the Kahn-Goldfarb Mental Status Questionnaire, the Blessed and items from the Philadelphia Geriatric Centre mental status assessment instrument. An extended interview was used when appropriate and an informant interview was conducted with the staff person most familiar with the patient to obtain comparable data on functioning among all patients. Results were compared between groups using multivariate analysis and it was concluded that the impact of SCU in terms of all dimension was both nonsignificant and trivial.

Mathew and Sloane (1988) did a comparative analysis of thirteen residents of a SCU with residents in two comparison traditional units of the same facility and with a comparison facility. Data was collected by observation, chart review and examination. The Mini Mental State Exam measured mental status, Moore's Functional Dementia Scale (includes ADL, orientation and affect) measured functional status and behavior was assessed using the Haycox Dementia Behavioral Scale. Family member level of satisfaction and degree of anxiety over the nursing home placement was measured by four items designed for the purposes of the study, each using a Likert type scale. Additional information was documented including restraint use, psychotropic medication use, weight loss, sleep problems. Results were analyzed using chi-square test of significance and analysis of variance. The data identified few significant differences in patient outcomes for SCU residents compared to non SCU residents.

Kovach and Henschel (1996) compared resident behavior after the introduction of

five types of organized therapeutic activities. Twenty four SCU residents were observed during music, art, exercises, a cognitive activity and a functional household activity such as cooking, dishwashing or folding towels. Assessment tools were not addressed. An analysis of the content of the observations was done providing a partial and incomplete description of the therapeutic activity experience for people with dementia.

A retrospective study done by David Thomas (1996) described the characteristics of a SCU and measured the effects on resident outcomes using an ex-post facto design. Fifteen residents were evaluated on five variables: combativeness, falls, restraint use, weight and ADL skills before and after admission to the SCU. Medical records of the fifteen residents were reviewed over a three month period prior to the move to the unit, followed by a three month review after the move. All subjects had been residents of the centre for at least six months. The results were favorable to the SCU in ADL score and decrease in restraint use, while weight and combativeness remained the same and falls increased on the SCU.

2.2 Impact of Special Care Units on Staff

Studies evaluating impact of SCU on staff seem to be fewer in number. The rationale for studying staff is that if caregivers are adequately prepared to care for residents with AD, their job satisfaction as well as residents' lives can be greatly improved. Maas et al. (1994) studied a number of staff related variables including knowledge about AD, job satisfaction and absenteeism of staff working on SCUs compared to staff on traditional units. Knowledge of AD was measured by the revised knowledge of Alzheimer's Disease Test (KAT). Job satisfaction was measured by the Nursing Satisfaction

Questionnaire (NSQ) and absenteeism was measured from personnel records at the study site. Results showed that knowledge of AD was slightly higher among nursing staff working on the SCU. After the initiation of the SCU, the satisfaction of the RN's on the SCU with their preparation increased while the satisfaction of the RN's with their preparation on the traditional units decreased. The RNs in the SCU used significantly less sick time after the SCU was opened than the RNs in the traditional unit.

A study by Mistretta and Kee (1997) collected data through semi-structured interviews and analyzed it using content analysis to identify the major care giving strategies used by staff members: timing of resident care, reminding, being flexible, cueing, knowing, soothing, allowing control, preserving dignity, disconnecting and consulting. There was no comparison made to traditional units.

Another evaluation of staff training and turnover done by Grant, Kane, Potthoff and Ryden (1996) used interviews with education coordinators and supervisory nurses to determine differences in intensity of training, training content, staff categories trained, measures for staff stability and turnover between SCUs (60) and traditional units (64). Likert type scales were used to measure the variables. SCUs had significantly higher mean scores on training methods and staff ability while mean scores in all other measures were not statistically significant.

McCracken and Gilster (1992) used a "Work Attitudes and Performance Questionnaire" (no source provided) to assess the desires and perceptions of staff working in an eighty two bed facility dedicated exclusively to caring for AD residents. The effectiveness of current staff programs and support systems was measured. There

was no comparison to a traditional unit or facility. Respondents clearly indicated that caring for persons with AD is a task they perceive as significant and personally satisfying.

Lindesay et al. (1991) did a study in which three facilities were compared for level of staffing, levels of activities, level of expectation, absenteeism, job turnover and expressed levels of job satisfaction. Data was collected via interview and observation. Results showed that the SCU was characterized by greater expectations for residents' functioning, policy choice, resident control and availability of social and recreational activities. Level of staffing was also higher on the SCU. Level of care of the residents was similar at all facilities yet the SCU residents were rated by the staff as less disabled in self care, orientation and communication. The SCU showed higher levels of activities and staff-resident interaction but no differences in absenteeism, job turnover or psychological impairment. However, the SCU staff did express higher levels of job satisfaction.

2.3 Impact of Special Care Units on Family Members

There is also very little research on family members after the relative with AD has been placed in a SCU. Linsk et al.(1988) reported on a demonstration program to involve families in care of their institutionalized relatives with AD. Forty five family members participated in a structured program including an orientation session, formulation of contracts, educational sessions, participation in care, and an ongoing support group. Evaluation data was collected at baseline and again at nine months. At the follow-up, family members reported that they continued to feel close to their relatives. Many perceived that their relative's cognitive status has remained stable or had improved. In

addition, family members noted that the program helped them to feel more a part of the unit, although they did express the need for continued support and additional education if they were to maintain their involvement in care.

The Mathew and Sloane (1988) study referred to earlier also collected family satisfaction data with families expressing their satisfaction with the care being provided on a SCU.

McConnell (1994) reported on surveys done by the American Alzheimer's Association on both professionals and family members who have a relative in a SCU for their perceptions of differences between the SCU and traditional units. Professional advocates reported little difference in SCUs compared to traditional nursing units. Most did not report widespread or serious problems, but a majority said that SCUs were no better or worse than other nursing homes/units. Family members were satisfied with the care their loved ones received, and the overwhelming majority would place their loved ones in the same SCU again.

Dupuis, Dobbelsteyn and Ericson (1996) also examined family members and staff perceptions of SCU. This was a Canadian study and data was collected by interviewing fourteen family members of SCU residents and fourteen staff members. Both family members and staff consistently described the major benefit of the SCU as the residents' freedom to wander in a supervised environment. Some family members thought the SCU had positively influenced residents' social behaviors. Providing opportunities for residents to engage in meaningful, enjoyable activities that reflect prior interests was also strongly endorsed by both families and staff. Families also noted the frequent physical

demonstration of caring of staff toward residents as being beneficial. Both staff and family members described the need to further develop a more home-like atmosphere and identified problems with the physical design of the unit that hampered optimal functioning.

Another Canadian study by Sudbury and Mayhew (1994) described the contents of both formal staff meetings and staff journal entries to determine the benefits of SCU. Teamwork and staff rapport was reported to have improved over time based on the staff entries in the journal and comments at the staff meetings. Family satisfaction was measured by the amount of gifts, compliments and donations made to the SCU.

The remaining studies reviewed were descriptive and exploratory in nature. Sand, Yeaworth and McCabe (1992) did a survey of 203 facilities to answer the following questions: what are the most problematic behaviors of AD residents in facilities with or without SCU, what characteristics make SCUs special, how do therapeutic approaches differ, does use of restraints differ, and what patient outcomes are associated with SCUs. Results showed that day time wandering was the only problematic behavior that was statistically different between groups, SCU less frequently identifying wandering as a problem. Staff ratio was cited as the characteristic most often associated with SCUs as well as special staff characteristics, admission criteria, physical environment changes, activity programs, average size of SCU being 19.5 beds. Therapeutic approaches differ in that SCUs use distraction, redirection and reminiscing while traditional units use reality orientation and explaining as a management technique. Frequency and use of restraints was reported to be decreased on SCUs. Patient outcomes as a result of placement in a SCU included: more calm behavior, less disruptive, decrease in agitation, and less need

for restraint.

Irene Coulson (1993) also used multiple methods including interviews, researcher observations, evaluation of the physical layout and caregiver feedback to examine the impact of the total environment on dementia care, and Cohen and Day (1994) reviewed twenty contemporary environments for people with AD and analyzed the data for trends in SCU design.

2.4 The Problem of Bias in Special Care Unit Research

One of the most controversial issues and perhaps the one most important to family members is whether and how much will SCU residents benefit from the special environment and programming. Some argue that because the most common causes of dementia are irreversible, no benefits can be expected while others believe that supportive environments can significantly improve some aspects of life for the resident or caregiver (Sloane et al.). To date, very few controlled studies of SCU effectiveness have been reported. Most published studies are quasi-experimental, are typically small and involve a single site.

When Sloane et al. (1995) reviewed the published studies, they found that

- a) three of the studies used a pre-post design in which subjects served as their own controls, and analyses compared pre-admission measures with those obtained a few months after admission;
- b) one study used a pre-post design with a comparison group;
- c) four studies were comparative outcome studies, in which subjects residing SCUs were

compared with controls who do not receive the treatment; and
d) one study was a randomized trial, which compared 12 subjects admitted to an SCU
with ten controls on a waiting list.

Sloane suggests that the results of these studies require critical examination to determine whether methodological problems undercut the validity of their conclusions.

One issue which has received considerable attention is the fact that SCUs vary in their form and function leading to a loose definition of SCU (Berg et al, 1991). An equally pervasive problem is that SCU research is vulnerable to many potential sources of bias which undermine comparability of SCUs to one another or to control units in facilities, thereby weakening the internal validity of evaluative studies.

The most important sources of bias are summarized below.

Sampling bias, which occurs when study subjects (SCU residents) differ systematically from those in a comparison group (traditional nursing unit), results in a distorted estimate of effect (Kleinbaum et al., 1982; Sackett, 1979). Since SCUs tend to be small, many evaluation studies gather data from multiple facilities, consequently enabling bias to occur at the resident level and at the facility level. At the facility level, differences can be seen in ownership of the facility, bed size, and in the USA, certification status (Leon et al., 1990). Another potential problem may arise if a study enrolls SCUs that are in “better” facilities than those from which comparison units are selected, the result being that SCU care would appear superior to non SCU care. Another type of facility-level bias is non recruitment bias which can arise if more facilities in one group refuse participation and those that refuse differ systematically from those that participate.

Unit size bias may also be a factor. If unit size is indeed a determinant of the effectiveness of SCU care, the size of the SCUs in a study could affect results. If only larger studies are included in the study, findings could be biased toward the null (i.e. no SCU effect). According to Sloan et al., (1995), this may have been the case in the largest outcome study published to date by Holmes et al., (1990).

Specific to SCU studies is the problem of nondifferential selection arising because SCU populations are likely to differ systematically from comparison units in terms of the prevalence of comorbid conditions, length of stay, and type of dementia represented. SCU populations tend to be younger and have fewer comorbid conditions than demented residents on traditional units partly because many SCUs refuse admission to persons with advanced dementia or major disabilities. (Wilden & Froese, 1991). These biases would tend to make the SCUs appear superior to traditional settings in relation to physical health outcomes.

Mathew and Sloane (1991) suggest that unit age bias may also be a factor as there may be differences between residents and staff of SCUs compared to traditional units as a result of the relative newness of most SCUs. The median age of SCUs, in a survey done by Mathew and Sloane (1991), was two years old, while Sand et al.,(1992) found the median age to be three years old. Weiner and Reingold (1987) found the median age of the SCUs surveyed to be six years old. Since AD and related dementias often progress slowly, the mean functional level of residents on a new unit will tend to be higher than that of residents at the same level of care in a long established unit. Staffing issues may also be affected by age. Most organizations experience high turnover among new staff,

thus new units are likely to have higher rates of staff turnover than an established unit.

Turnover and a limited number of experienced staff may lead to lower quality of services on newer units than more established settings. On the other hand, newer units often have more favorable staff to resident ratios.

The most obvious biases are those related to dementia diagnosis and disease process. Treatment and control groups may differ if there are unequal rates of AD and multi infarct dementia (the two most common types of dementia in nursing homes)in the groups. SCUs may discourage admission of persons with multi infarct dementia, possibly by preferring residents who are ambulatory and verbally fluent, and since multi infarct dementia tends to progress more rapidly than AD, dementia diagnosis bias is likely to favor SCUs.

Another factor is the tendency for SCU residents to be earlier in their disease process than traditional unit residents (Sloane & Mathew, 1991; Hartmaier, 1993), the bias thereby favoring SCUs.

Sloane et al. (1991) also noted that when SCU residents and traditional unit residents are drawn from the same facility, treatment diffusion is likely to reduce the SCU effect as commonly in homes with SCUs, staff who work on the SCU cross over onto traditional units and training and treatment techniques that are successful in the SCU become introduced elsewhere in the facility. When SCU or traditional unit residents are drawn from different facilities, not only are facility differences no longer controlled for, but differences between subject groups are accentuated, leading to “facility characteristic bias”.

A variety of sources of attrition also has the potential to bias results. These include

death, refusal to cooperate in later study phases, incapacity to respond, and discharge from the unit as per discharge criteria. SCUs often have a policy of discharging residents once they are “unable to respond to and benefit from” the SCU environment (Holmes et al, 1992; Weiner & Reingold, 1989). Discharge criteria typically include reduced functional status (e.g.) loss of ability to ambulate, transfer, eat, dress and/or groom independently, the development of complex medical problems, and unmanageable behaviors. Since the criteria for discharge from a SCU often represents the very outcomes that constitute research end points, this bias is likely to occur whenever discharged subjects are lost to follow up during data collection or removed from analysis. This selective discharge bias will make SCU care look superior to traditional nursing home care.

According to Sloane et al.(1995), the most bothersome problem facing longitudinal studies of dementia and SCUs is measurement bias, that is the reliability and stability of measures, sensitivity of measures to meaningful change, interviewer bias, fatigue effects, vision and hearing problems, use of proxy informants and changes in protocol over time.

In conclusion, given that SCUs are extremely varied milieus, effectiveness will differ depending on the subgroups to which the intervention is applied combined with the many sources of systematic bias. A quick answer to the question “are SCUs effective?” may not be possible.

As noted earlier, most SCU outcome studies are quasi-experimental. Such designs are appropriate for this stage of research; too little systematic information exists on SCU organization, function, residents and outcomes to successfully design and conduct valid

clinical trials. (Leventhal et al., 1991) However Sloane et al.(1995) have summarized some recommendations for furthering SCU research:

- 1) Improve basic definitions, create typologies of SCU care modalities and identify variability among SCUs. At the unit level, carefully describe the characteristics of the unit, staff training, staffing and program activities, and differences in subjects;
- 2) Review of research methods and instruments with the goal of being able to describe one subject over time, using measures that are appropriate, reliable and valid;
- 3) Conduct small studies within one facility rather than between facilities to judge the effects of one treatment element on the experience of one subgroup of subjects i.e. small scale trials; and
- 4) Increase sample size.

2.5 Summary

The Special Care Unit literature can be summarized into three main areas: studies involving the impact of SCUs on the resident, impact on the family and impact on the staff. The literature also describes the types of research designs which have been used to study SCUs, the measurement tools commonly used, the outcomes of the research and the problems of bias in SCU research.

The literature pertaining to the impact of SCUs on the resident is most useful as this is the primary area of interest in the proposed research. There were basically four types of research designs described in the literature which have been used to determine impact on the resident: pre-test post-test designs comparing SCU's with traditional units in the same facility, pre-test post-test designs comparing SCU's in separate facilities, pre-test post-

test designs comparing SCU's with traditional units and between separate facilities, and finally the retrospective pre-test post-test design which examined residents in one particular SCU.

The literature review pertaining to bias in SCU research suggested that studies which are done comparing SCUs in separate facilities are prone to bias as are those which compare SCUs to traditional units. For this reason, it appears that the simply designed pre-test post-test study of the SCU residents may be the best choice of design in this case.

There were several measurement tools used in the research to determine impact on the resident. Of these measurements, I reviewed the Functional Dementia Scale (Moore et al, 1983), the Mini-Mental State Examination (Folstein & Cockrell, 1988), the Global Deterioration Scale (Reisberg et al., 1982), the Haycox Behavioral Scale (Haycox, 1984), Functional Assessment Staging (Reisberg, 1988), the Global Deterioration Scale (Reisberg et al., 1982), the E-B Model (Zeisel, Hyde & Levkoff, 1994), and the Index of ADL (Katz et al., 1963).

Of the tools reviewed, the most suitable to the research are: The Folstein Mini-Mental State Examination for the measurement of mental status, the Moore's Functional Dementia Scale for the measurement of functional status, the Home Care Dependency Assessment for the measurement of functional status and some of the variables within the E-B Model for the measurement of behavioral status. The Folstein Mini-Mental State Exam is used in the Sharon Home to assess mental status and is one component of the assessment done by the facility Occupational Therapist upon admission to the facility as well as annually, when possible. The Moore's Functional

Dementia Scale appears to be a comprehensive measure of functional status and, while not used in the Home, seems to measure many of the variables associated with dementia and functional status. The Home Care Dependency Assessment is a tool that is used for all residents of the Home to assess for placement into the Home. Residents are also reassessed annually for their level of care using this tool. The combination of the Moore's Scale and the Home Care Dependency Assessment should adequately measure functional status. The behavioral status of residents is measured using several variables identified in the E-B Model such as episodes of agitation, episodes of sleep disturbance and episodes of restraint use. All of these tools, except Moore's Functional Dementia Scale, are currently used in the Home, simplifying data collection.

The Haycox Behavioral Scale was not ideal as it only very briefly, in an eight item scale, attempts to address all three areas of mental status, functional and behavioral status.

The FAST also measures functional and behavioral status in the same scale yet is incomplete, while the Global Deterioration Scale merely rates a dementia sufferer in a category of severity of dementia.

The Index of ADL was appropriate in identifying the basic dimensions of functional status, however, the E-B Model is more thorough and therefore more useful.

Chapter 3

Research Design

3.1 Research/Evaluation Site

The site of the study is a 229 bed Personal Care Home located in the north end of Winnipeg. The Sharon Home Inc., a non profit organization, has been serving the older Jewish population of Winnipeg and Manitoba for over seventy five years. The mission of the Home is “ to enhance the quality of life of the elderly in the Home and in the community setting. All programs and services offered to individuals in the Home or the community are developed to meet the unique requirements of the individual and the family, and are directed by the values, principles and traditions of Judaism.”

In 1995, planning commenced to renovate an existing unit within the facility and create a Special Care Unit for fourteen Alzheimer’s Disease (or related disorder) residents. The project was completed at a cost of \$215,000 and after twelve weeks of construction, was officially opened in the fall of 1997.

The project was undertaken after a needs assessment determined that the Jewish population, as a percentage of those over the age of sixty five (24%) is double that of the general population (12%). It was also determined that there were no other Special Needs Units in Manitoba to provide for the needs of the Jewish elderly specifically. An analysis of the Sharon Home population of 229 residents showed that approximately 183 had a diagnosis of dementia as either the primary or secondary diagnosis. Of those 183 with dementia, it was estimated that fifty five could directly

benefit from a Special Care Unit.

The range of services and programs offered within the Home include: medical services under the supervision of the facility Medical Director, professional nursing service on a twenty four hour basis, therapeutic services including Occupational Therapy, Pharmacy services, Social Work and Counseling, Pastoral Care, Nutritional Dietetics, Therapeutic Recreation, Dental and Podiatry service. The Sharon Home provides two community Outreach Programs: Adult Day Program and Respite Care.

The Sharon Home has a staff complement of close to two hundred employees, the majority of whom are represented by the Manitoba Nurses Union and the Manitoba Government Employee's Association. Funding is provided by Manitoba Health. The annual budget of the Home is approximately \$8,000,000.00. Private donations from both individuals and organizations have enabled the facility to excel in both services and physical amenities. The SCU was completed with both government funding and the help of significant community financial support.

The planning and implementation of the SCU project was accomplished with considerable staff and family input. The Implementation Team, which met regularly, consisted of the facility's Occupation Therapist, Social Worker, Director of Resident Care, Unit Nurse, Unit Coordinator, Therapeutic Recreationist, Housekeeping/Laundry Manager, Food Services Manager, C.E.O. and a family member whose mother suffers from Alzheimer's Disease. The Team also received input into the physical design of the Unit from Cynthia Karpan, interior designer and the Alzheimer's Society of Manitoba.

The Implementation Team was responsible for developing goals and objectives for the

Unit, admission and discharge criteria, staff hiring and cross training of staff. The duties of the cross trained staff were determined after a number of meetings between Nursing, Therapeutic Recreation and Housekeeping Services. These Services examined the roles of their respective staff members and arrived at a job description that encompassed all of their duties and combined them into one role, that of the cross trained worker. The cross trained worker is skilled in Housekeeping, Recreation and Health Care Aide duties. The team was also involved in making design/decorating decisions such as choosing the draperies, bedding, furniture and appliances.

The most difficult part of the project was the actual renovation of the existing unit. During the three months of construction, the residents living on the unit were transferred everyday from the fifth floor down to the second floor auditorium where they would have their meals and spend their day until bed time when they returned to the fifth floor to sleep. The auditorium had been retrofitted for the exclusive use of the SCU residents during this time with partitioned rest areas, dining areas and washroom facilities.

Upon completion of the Unit, the final admission of residents to the unit was also completed. The Implementation Team had determined that several of the residents did not meet the criteria for a Special Needs Unit and thus required transfer to a traditional care unit. (The criteria being that the resident must have a diagnosis of dementia, be ambulatory and be able to participate in and benefit from the programming provided). The Implementation Team recommended that the adjacent unit be referred to as the Step Down Unit from the SCU and that SCU residents who meet the discharge criteria be given priority for this unit.

Residents who met the criteria for admission into the SCU were transferred to the

Unit as places came available. This process required that the Unit Nurses complete an admission to SCU application form and submit it to the Facility Admissions Team for prioritization. These family members were generally agreeable to placement given the potential benefits the Unit could provide.

3.2 Purpose of Research/Evaluation

The first task of the evaluator was to choose a focus in order to guide and limit the scope of data collection. The evaluator may choose to focus on one of four areas:

- 1) the needs of the clients (needs assessment);
- 2) the program processes (process or systems evaluation);
- 3) the program outcomes (outcome evaluation); or
- 4) the program efficiency or costs (cost-effectiveness and benefit-cost evaluation)

(Rossi & Freeman, 1993).

The focus of the evaluation of the Sharon Home Special Care Unit was be on program outcome, the immediate and long-term results of the service or program. The purpose of the evaluation was to determine the impact of the unit on those residents currently living in the unit and to determine the family member's perception of the impact of the unit on their relative. The evaluation was for the benefit of the Sharon Home in so far as it may provide information to the Home's staff and administration for the purposes of improving the care and service provided in the Home. The evaluation was not designed so that results could be generalized to the population. Evaluation outcomes will be shared with

staff, families, and administration and may also be shared with other interested persons or organizations in the field of geriatrics.

3.3 Research Questions and Hypotheses

Research/Evaluation questions may be addressed either quantitatively and/or qualitatively. In this evaluation, both methods were used. Pecora, Fraser, Nelson, McCrosky and Meezan, (1995) argue that a mix of both approaches (not necessarily in the same study) produces the strongest information for documenting program development and effectiveness.

The research/evaluation questions to be addressed in the study are:

1. Has the Special Care Unit been effective in improving resident behavior/functional status and mental status? (quantitative evaluation)

Of primary concern are those behaviors and functional deficits commonly associated with Alzheimer's Disease such as confusion, agitation, wandering, lack of ability to complete simple tasks such as bathing and dressing. These were measured using the Moore's Functional Dementia Scale and outcome measures from the Environment-Behavior Model. Mental status was be measured using the Mini-Mental State Examination which measures orientation, registration, attention and calculation, recall and language.

Hypothesis:

- 1.1 It is expected that resident mental status may be maintained at the same level as upon admission to the unit or may have deteriorated slightly as it would with progression of the disease.

1.2 It is expected that the resident's functional abilities such as the ability to dress, wash, groom, ambulate, feed oneself and remain continent of bowel and bladder would be maintained and perhaps improved slightly given the increased staff focus on assisting the resident in doing more for themselves.

1.3 It is expected that there be an improvement in behaviors such as wandering, interpersonal conflict, agitation and aggressive behavior as the unit is designed in a home like manner to reduce over stimulation and improve orientation and staff are specially trained to work with residents who exhibit these behaviors.

2. Do the family members of the Special Care Unit residents perceive the unit to be effective in improving or maintaining the resident's behavioral, functional status and mental status? (qualitative evaluation)

This question will be addressed using a researcher designed survey which will require the respondent to report his/her perception of the effectiveness of the unit.

Hypothesis:

It is expected that family members will perceive the unit to be effective based on the physical design, food service, recreation programming and care provided but lacking in access to outdoors.

3.4 Research Design and Methodology

The next task of the evaluator is to determine the design of the evaluation. One way to do this, at either the practice or program level, is to use single-system research designs, also referred to as single-case designs, N=1 research, intra subject-replication designs,

time-series designs, and idiographic research (Barlow & Herson, 1984). Single-system designs are aimed at assessing the results or effects of change with one client, one couple, one family, one group, one community, or one program.

In the last two decades, clinical practitioners and researchers who previously employed the case study method have promoted the use of single-system designs because they enable them to utilize standardized objective measures and more sophisticated procedures. This has resulted in better individualized treatment plans, more efficient modification of interventions, clearer definitions of which interventions were successful with which clients - all serving to promote better client outcomes (Thomlison, Sieppert & Grinnel, 1992).

The requirements for the use of the single-system designs are these:

- 1) clearly stated measurable objectives;
- 2) valid and reliable outcome measures used to measure the objectives; and
- 3) appropriately displayed data.

The first requirement in the use of the single-system design is that the dependent variable (i.e. program objective) must be measurable. In the proposed research/evaluation, the clinical objective involves reducing the frequency of behaviors associated with Alzheimer's Disease, maintaining mental status and maintaining or improving physical functioning.

The second requirement is that the measurement of the program's objective (dependent variable) must be valid and reliable. In the proposed research/evaluation, measurement tools have been chosen for their reliability and validity.

The third requirement is that the data must be displayed properly. Most commonly, data is presented in a graphic format.

The quantitative portion of the evaluation will include the 14 current residents of the unit. Subjects are both male and female who have met the admission criteria to the Unit (they are ambulatory, have a diagnosis of dementia and are able to participate in and benefit from the programs offered within the Unit). The majority of the subjects have been residents of one of the traditional care units in the Sharon Home, while one was admitted directly from hospital and the other from another Winnipeg nursing home.

These fourteen subjects ($n = 14$) will be studied using a Retrospective Baseline Single-System Design. Other designs have been considered, however given the limitations within the field, they have not been the design of choice for the following reasons:

1. The subjects have not been randomly assigned into the SCU thereby negating the use of a true experimental design.
2. A comparison of SCU residents with a control group of residents in a traditional unit is a possibility however, it would not be possible to choose sixteen residents who met the same criteria as the SCU subjects on just one of the units in the Home. If sixteen control subjects were chosen from the entire facility, the problem of controlling for differences between the units would be a considerable factor in biasing the results.
3. A comparison of Sharon Home SCU with SCUs in other facilities was also possible, however, sampling bias again comes into play. Subjects will differ between facilities

due to the differences in the facilities themselves. These differences may include the size of the units, the staffing components and the admission criteria. There may also be differences between facilities if they are for profit or not for profit, and some facilities may be better than others in the care and service provided.

4. The pre-test post-test design would be appropriate except that the subjects to be studied were already in the “treatment”, that is, they had already been placed in the SCU. The solution to this problem was the retrospective baseline single system design in which the pre test is taken based on the information documented in the residents chart at the time of admission to the Unit. In order to increase the validity of the results, repeated measures were taken at three months, six months, nine months and 12 months after admission.

The research/evaluation question “Do family members perceive the SCU to be effective in improving resident behavior/functional status and mental status?” was addressed using qualitative methods. A family member perception survey was conducted to determine their perceptions of effectiveness. The researcher met with those family members who lived in Winnipeg and who consented to being interviewed while out of town family members were mailed the survey. Survey results were analyzed using content analysis and descriptive statistics.

3.5 Data Collection and Analysis

In order to measure mental status, functional status and behavioral status, four tools were chosen:

1. The Folstein “Mini Mental State Examination” (MMSE)

This is a widely used measurement tool for the assessment of mental state. It includes eleven questions, requires only 5-10 minutes to administer and is practical to use repeatedly and routinely. It is widely used for the preliminary screening, diagnosis, and serial assessment of psychogeriatric patients, providing a very brief but formal and relatively thorough measure of cognition. It is most suitable for detecting the cognitive deficits seen in syndromes of dementia and delirium and for measuring these cognitive changes over time. It has been shown to be both reliable and valid. The limitations of the MMSE are that, alone, it is unable to yield a final diagnosis of any individual patient. As well, because of the reading and writing involved in part two of the exam, patients with severely impaired vision may have some extra difficulty as may those with arthritis or other physical disabilities which may affect ability to write.

2. Moore’s Functional Dementia Scale

This scale is designed to provide a method of quantifying the severity of functional disabilities in demented residents. It was designed to be reliable and valid, simple enough to be completed by family members, short enough to be practical, capable of distinguishing degrees of severity and quantifiable. Reliability of the tool has been established, however, validity was difficult to evaluate because of the lack of standardized measures assessing the same problems addressed by the functional dementia scale. Further work is necessary to determine whether the instrument is sufficiently sensitive to measure changes associated with either the progression of the disease or results of intervention. The Moore’s Functional Dementia Scale does have

face validity as it addresses the major problems associated with dementia which are experienced by the Home's SCU residents: wandering, aggressive behavior and agitation as well as overlapping into behaviors such as eating, bowel and bladder continence, bathing and dressing which are also addressed in the E-B Model.

3. A modified Environmental-Behavior (E-B) Model

Twelve outcome measures out of a total of over 25 potential resident outcome measures were selected for evaluation as defined by the E-B Model. These measures are: episodes of sleep disturbance, episodes of wandering/exit seeking/ pacing, episodes of falls and injuries, number of altercations with other residents, episodes of agitated behavior, episodes of aggressive behavior, restraint use, use of psychotropic medications, participation in recreation programming and number of hospitalizations as well as total scores on ADL (activities of daily living) self performance which comprised seven specific ADL skills: ambulation, toileting, bathing and dressing, eating. Resident weight was also measured. These measures are all well documented in resident charts and can be readily retrieved for scoring.

4. Dependency Assessment (level of care)

This is the tool used by Home Care to assess applicants for admission to Personal Care Home. Each resident's level of care is reassessed annually in February. The tool measures level of independence in bathing and dressing, assistance with meals (feeding), ambulation/transfers, elimination and professional intervention. A behavioral assessment supplement may also be included in the application. This tool along with the Moore's functional dementia will measure the functional abilities of the residents before

and after placement on the SCU.

Family perception

Family member perception of effectiveness will be measured using a researcher designed survey and will be administered in an in person interview with the family member by the researcher after an initial telephone contact. There were no examples of family perception surveys available in the literature review. However, the survey questions were designed based on the expected outcomes of SCUs as determined in the literature review.

Data was collected by the researcher and the survey designed and conducted by the researcher. A data sheet was completed on each subject. The first portion of the data functional information as provided in the resident's application to Nursing Home and admissions assessments. The second portion of the data sheet was used to document the scores achieved on the tests.

The tests were conducted as follows:

- Folstein Mini Mental Status:
1. pre test or baseline at time of admission to facility as done by facility Occupational Therapist
 2. post admission to be done by researcher

- Moore's Functional Dementia Scale:
1. pre test or baseline at time of admission to facility
 2. at six months pre admission to unit

3. at six months post admission
4. at 12 months post admission
5. at 22 months post admission

E-B (Environment-Behavior) Model (Modified): 1. Pre test or baseline at time of admission to the facility

2. at six months pre admission to unit
3. at 12 months post admission
4. at 18 months post admission
5. at 22 months post admission

Dependency Assessment: 1. Pre test or baseline at time of admission to the facility

2. at six months pre admission to unit
3. at 12 months post admission
4. at 18 months post admission
5. at 22 months post admission

Family Perception Survey:

The survey was done, in person in most cases, with family members, by the researcher. Those family members who do not live in Winnipeg were mailed the survey following telephone contact by the researcher. The family members surveyed were the primary contact persons listed in the resident's chart, a total of twenty family members. Results were analyzed using a content analysis and descriptive statistics. Content analysis refers to a method of transforming the symbolic content of a document, such as words or other images, from a qualitative, unsystematic form into a quantitative, systematic form

(Krippendorff, 1980; Weber, 1990; Gottschalk, 1995). It is a form of coding, a way of transforming data from surveys into a limited number of categories. Generally there are four units of analysis, a word, a theme, a major character, or a sentence of paragraph. In this study, the unit of analysis used was the theme which refers to the major subject matter contained in the document.

3.6 Limitations

Special Care Unit research is vulnerable to many potential problems which may weaken the accuracy of results. The retrospective base line single-system design is subject to the problem of reliance on medical records as the primary source of data. Accurate record keeping is dependent on the motivation and interpretation of staff members. If data is missing and a baseline measurement cannot be obtained then the variable cannot be measured in terms of change after introduction of the intervention. In the case of the Alzheimer Disease resident, maturation becomes a consideration. Over the time frame of the study, many physical and cognitive changes can take place that can interfere with the study results. Historical events, such as the introduction of a new charge nurse to the unit, would also confound the results. Because there is no control group and subjects are not randomly assigned, these issues become problematic for the retrospective base-line single system design. Because of the small sample size, $n = 14$, study results cannot be generalized to the larger population, limiting their value to the confines of the research site and the research subjects. Study results require careful interpretation given the limitations imposed by the study design.

Content analysis is also subject to limitations. One such limitations is the problem

with reactivity. The presence of an interviewer has an impact on the natural course of events no matter how unobtrusive he/she tries to be. In this study, the interviewer is also the facility Social Worker and therefore not entirely neutral. Family comments may have been influenced by the interviewer's status as facility representative. However, the nature of the data, its firm grounding in the real world of the respondents, is worth the risk of reactivity (Padgett, 1998).

Chapter 4

Results

4.1 Special Care Unit Family Perception Survey Results

Twenty family members were contacted to participate in the survey and eighteen surveys were completed. Three surveys were sent in the mail to family members and all were received back while the remaining fifteen family members were interviewed in person at the Sharon Home.

4.1.1 Quantitative Analysis of Family Perception Survey Results

The Family Perception Survey questions were divided into two types of questions, Likert Scale questions and open ended questions. The final question in the survey asked family members to rank the SCU features in order of importance. The Likert Scale questions were divided into 5 categories. These categories were physical design, recreational programming, food service, care provided and impact on mental, physical and behavioral status. Tables 1 - 5 illustrate family members responses to these questions. Mean scores and standard deviation are shown.

Table 1

Special Care Unit Family Perception Survey Results

Physical Design

| Question | mean | standard deviation |
|-------------------------|------|--------------------|
| Q1 Home like atmosphere | 3.19 | .46 |
| Q2 Family visiting | 2.89 | .47 |
| Q3 sensory stimulation | 2.94 | .24 |
| Q4 environmental clues | 2.66 | .60 |
| Q5 safe wandering | 3.41 | .62 |
| Q6 access to outdoors | 2.0 | .97 |
| Q7 safety | 3.0 | .57 |
| Q8 privacy | 3.06 | .24 |
| Q9 functional workplace | 3.18 | .39 |

notes: 1 = strongly disagree
2 = disagree
3 = agree
4 = strongly agree

Table 1 shows the responses to questions 1 - 9 pertaining to the design of the unit. The mean scores indicate that family members are in agreement that the physical design elements of the Unit are effective. Five of the nine questions had a mean score of 3.0 or more. However, family members were divided between agreement and disagreement on question 4, the Unit provides environmental clues to support the residents' memory. Question 6, access to outdoors when weather permits had a mean score of 2.0 which indicates disagreement with this question. Indeed, there is no immediate access to outdoors as the Unit is located on the fifth floor.

Table 2 illustrates responses to questions 10 - 16 pertaining to recreational programming. Question 15, recreation programming uses reminiscing as a means of building on the resident's strengths, had a mean score of 3.00 and question 16, recreation programming is appropriate for the resident's cognitive and functional abilities, had a mean score of 3.07, both indicating agreement. The remaining questions had mean scores under 3.00 but greater than 2.5 which also indicates that these family members were in agreement but less assuredly. Of special interest were the high number of responses to the recreation programming questions in the "I don't know" category compared to the other areas. This may have been due to the design of the question or families may in fact be unaware of recreation programming content or objectives.

Table 2

Special Care Unit Family Perception Survey Results

Recreational Programming

| Question | mean | standard deviation |
|--|-------------|-------------------------------|
| Q10 offers individual and group rec. | 2.79 | .58 |
| Q11 offers physical exercise | 2.93 | .70 |
| Q12 enhances sensory enjoyment | 2.88 | 2.0 |
| Q13 relates to interests, values, heritage | 2.93 | .34 |
| Q14 build on resident strength | 2.67 | .47 |
| Q15 uses reminiscing | 3.00 | .60 |
| Q16 appropriate for cognitive and functional status | 3.07 | 3.0 |

notes: 1 = strongly disagree
2 = disagree
3 = agree
4 = strongly agree

Table 3

Special Care Unit Family Perception Survey

Food Services

| Question | mean | standard deviation |
|--------------------------------|-------------|---------------------------|
| Q17 style of meals familiar | 3.00 | .43 |
| Q18 served in home-like manner | 3.24 | .44 |
| Q19 enough time is allowed | 3.17 | .51 |

notes: 1 = strongly disagree
2 = disagree
3 = agree
4 = strongly agree

Table 3 shows the three questions relating to food service and the mean scores of 3.00, 3.24 and 3.17 indicating definite agreement with this area of service.

Table 4

Special Care Unit Family Perception Survey

Care Provided

| Question | mean | standard deviation |
|------------------------------------|-------------|---------------------------|
| Q20 provided in consistent manner | 3.06 | .43 |
| Q21 provided in flexible manner | 3.18 | .39 |
| Q22 provided at flexible time | 3.08 | .28 |
| Q23 manage conflict | 3.07 | .46 |
| Q24 professional staff role models | 3.25 | .45 |

notes: 1 = strongly disagree
2 = disagree
3 = agree
4 = strongly agree

Table 4 shows the responses to questions 20 - 24 pertaining to the care provided. These scores also indicate agreement based on mean scores of 3.06 and over on all questions.

Table 5

Special Care Unit Family Perception Survey

Impact on Mental, Physical and Behavioral Status

| Question | mean | standard deviation |
|-------------------------------------|------|--------------------|
| Q 25 cognitive status maintained | 2.69 | .95 |
| Q26 maintained or gained weight | 3.22 | .55 |
| Q27 maintained physical function | 2.63 | .96 |
| Q28 decreased medications | 2.46 | .66 |
| Q29 decreased wandering | 2.50 | .71 |
| Q30 decreased agitation | 2.71 | .69 |
| Q31 satisfied with care and service | 3.06 | .51 |
| Q32 SCU has met expectations | 2.94 | .59 |

notes: 1 = strongly disagree
2 = disagree
3 = agree
4 = strongly agree

Table 5 shows the responses to questions 25 - 32 which pertain to impact on mental, physical and behavioral status showed somewhat varied responses. The mean score for maintained or gained weight indicates agreement as does satisfaction with care and service, however, cognitive status maintained, physical status maintained, agitation decreased and expectations met all scored between 2.63 and 2.94.

Mean scores for question 28, use of psychotropic medication and question 29, incidence of wandering were 2.46 and 2.50 which would imply that family members were divided between agreement and disagreement in this area.

4.1.2 Qualitative Analysis of Family Perception Survey Results

Family members made comments along with their responses to the Likert Scale questions. Those comments which recurred were categorized into themes and are highlighted throughout the analysis.

1. The design of the unit creates a home like atmosphere.

Total Comments: 7

- Family members commented that they felt the unit was indeed more home-like than it was prior to the renovations to the unit.
- One family member stated that, although the unit was very nice, it was over the heads of the residents on the unit. It was felt that the residents currently on the first or second floor of the Home would benefit from the unit more than

those on the unit now. First and second floor residents are at a lighter level of care, level 2, 2y, and 3 while data retrieved from the retrospective baseline study showed that the range of level of care of the SCU residents is 3, 3y, 4 and 4y. This comment will emerge as a recurrent theme throughout the survey.

Some additional comments made by family members include

- The feeling that the SCU is much better than what is provided on the first floor.
- An appreciation for the private rooms.
- Different colors could have been used to better delineate each resident's room.
- Cluster design would have been better than the traditional L shape hall ways.

2. The design of the unit enhances family visiting.

Total Comments: 3

- Family members had few comments but noted that there are few private areas, due both to the type of residents on the unit who can, at anytime, wander into others personal space and also due to the open design.

3. There is provision for visual, musical, tactile and other sensory stimulation.

Total Comments: 2

- Family members noted that these features are provided but questioned whether residents benefit from it.

4. The design of the unit provided environmental clues to support the resident's memory.

Total Comments: 4

Theme: residents too advanced in disease process

- Family members commented on the memory boards located outside each resident's door which are designed to hold photographs of family members and meaningful events in resident's lives. A number of family members felt that their relative didn't recognize the pictures of the people in the memory boards, that the memory boards were of no value, that they are too small and the resident never looks at them. It was felt that at a certain point, the resident doesn't recognize the pictures and can even become afraid of them. These comments support the theme that emerged in question one, that the residents may be too advanced in their disease process to benefit from, in this case, the memory boards.

5. There is provision for safe wandering on the Special Care Unit.

Total Comments: 1

- One family member commented that there is not enough space for wandering,

that the unit is very enclosed.

6. There is access to outdoors when weather permits.

Total Comments: 5

- Family members commented that there is no direct access to outdoors because the unit is on the fifth floor and that a closer exit to outside is required as the resident cannot walk the distance required to get outside.
- Other family members noted that their private companion takes them outside so the lack of access is not an issue.

7. The safety of the resident is maintained without unduly restricting behavior and activity.

Total Comments: 3

- One family member noted that his/her relative has to be strapped into a wheelchair frequently in order to maintain his/her safety which is contrary to the philosophy of the unit.
- Another family member felt that there is not enough staff, especially in the evening and night and as a result the resident fell.
- A third family member did not agree that safety is maintained and observed that there have been a lot of accidents on the unit, falls where no one has been a witness.

8. The unit is designed such that the resident's privacy is respected.

Total Comments: 3

- Family members appreciate the private rooms and agree that privacy is respected.
- One family member noted that she/he has observed residents in their bathrooms with the door open.

9. The design provides a pleasant, functional workplace for staff.

Total Comments: 2

- Staff seem to be satisfied and that the staff must be satisfied because there is little staff turnover.

10. The SCU offers individual and group recreation to promote socialization.

Total Comments: 10

Theme: residents too advanced in disease process

- Families did not feel that their relative was benefiting from the efforts to promote socialization, that although staff try hard, the resident doesn't participate or is past the stage in their disease to participate in socialization.
- "Mother never was a social person".

Theme: not enough recreation programming

- Family members felt that more individual programs, more exercise programs and more programs in general need to be provided for the SCU and the whole

facility. "The Recreation Worker is spread too thin".

Other general comments:

- Programs are better in the auditorium and the SCU residents should be going there
- Movies are not good for socialization
- There are more programs now than in the past but that there is still room for improvement.

11. Recreation programming includes the opportunity for physical exercise.

Total Comments: 3

Theme: not enough recreation programming

- Programming is severely limited due to the disabilities of the residents.

12. Recreation programming is designed to enhance sensory stimulation.

Total Comments: 3

- Family members noted that music therapy, cooking and baking are provided and they enhance sensory stimulation

13. Recreation programming relates to my relative's interests, values and heritage.

Total Comments: 3

Theme: residents too advanced in disease process

- One family member commented that programs did relate to values and heritage

14. Recreation programming is designed to build on the resident's strengths.

Total Comments: 3

Theme: not enough programming

- None of the programs relate to the past except baking.

15. Recreation programming uses reminiscing as a means of building on the resident's strengths.

Total Comments: 4

Theme: residents too advanced in disease process

16. Recreation programming is appropriate for the resident's cognitive and functional abilities.

Total Comments: 3

Theme: residents too advanced in disease process

- An additional comment offered by a family members commended the provision of music therapy on the unit and strongly agreed with the value of music in programming for SCU residents.

17. The menu provides for the style of meals that are familiar to the resident.

Total Comments: 2

- "I know my relative eats everything now, more than ever."
- "We never kept Kosher and I feel it is wrong to be told what to eat."

18. The meals are served in a home like manner.

Total Comments: 1

- One family member observed that the meals are served better now with the new bulk food system.

19. Enough time is allowed for meal service to be a pleasant, sociable experience.

Total Comments: 5

Theme: families appreciate the flexibility in meal service

- Family members appreciated that the staff were able to be flexible with the meal service
- The food could be put away and reheated when the resident wanted it
- Second helpings were available
- Staff don't force the resident to eat when the resident wants to walk and they wait until the resident finishes the meal before taking away the plates.

Other comments:

- There is too much time between courses, the soup comes too early so the residents get up and leaves
- An alternate is not always available for those on a soft diet.

20. I feel the care is provided in a consistent manner based on individual needs.

Total Comments: 5

Theme: not enough staff

- A number of family members responded that there's not enough help at night that the unit is short staffed but the staff try to do the best they can.
- Families provide private help for their relative
- " If I did not provide the help my mother might be in a wheelchair by now"
- Another commented that while regular staff are consistent in providing care, the weekend or casual staff are not.

21. I feel the care is provided in a flexible manner and is responsive to the changes in the resident's condition and behavior.

Total Comments: 3

Theme: families appreciate the flexibility in care

- Family members again commented that they felt the staff were flexible in providing care, they ask what the resident wants and they get it for them.
- Another family member commented that staff tried to get relative up early, but now they go with her habit.
- there is not enough staff at night.

22. I feel that care is provided at a time when the resident can accept it or is most able to perform his/her own self care.

Total Comments: 4

Theme: not enough staff

- The residents could do more for themselves but time is limited and staff don't pay as much attention to those residents who have companions.
- It is more difficult to provide the care as the resident has increased care needs.

23. I feel that the staff use appropriate skills to manage conflict that occurs between residents.

Total Comments: 3

- Staff member(s) respond inappropriately to a resident, overly harsh
- Have not observed any conflicts
- The staff are good at managing conflict.

24. The professional nursing staff provide ongoing support and role modeling to the non professional staff caregivers.

Total Comments: 7

- There were many comments made relating to role of the professional nurse on the SCU. Family members feel that this aspect of the care is excellent, that
- The nurse is very good, that the staff seem to get along well.
- One family member noted that there should be more supervision

and instruction and that role modeling may not be followed by non professional staff, that indeed, staff will pick up more from the more senior Health Care Aides than from the nurse.

25. I feel that my relative's cognitive status/orientation has been maintained.

Total Comments: 6

- Three responses were to the point that cognitive status of the resident(s) has declined due to the nature of the disease, not the unit.
- One family member responded that his/her relative has improved but more so through medical intervention. Since being on medication, she has been better.
- "In her case, the environment is irrelevant".

26. I feel that my relative has maintained or gained weight:

Total Comments: 6

- Four responses that relative has maintained or gained weight
- Two family members noted that there has been weight loss.

27. I feel that my relative has maintained his/her level of physical functioning.

Total Comments: 6

- Five families responded that their relative has declined in physical functioning

felt it was due to the disease process

- One family member felt that the decline may have been because the resident was put in a wheelchair when short staffed on the unit.

28. I feel that the use of medication to reduce agitation has been decreased.

Total Comments: 4

- Family members were consistent in their comments that medications stayed the same or were increased while on the SCU.

29. I feel that the incidence of wandering behavior has decreased.

Total Comments: 8

- Five family members responded that they did not feel that wandering was an issue for their relative
- Three family members responded that their relative's wandering behavior has remained the same, however, they are now free to wander on the SCU.

30. I feel that the episodes of agitated behavior have decreased.

Total Comments: 9

- Most family members commented that agitated behavior has not decreased but generally remained consistent over time and they attributed this to the use of medications to moderate the behavior.

31. I am satisfied with the care and service received on the SCU.

Total Comments: 4

Theme: not enough staff

- The evening and night shift as being especially short staffed.
- Residents are put to bed too early and that there is a rush between snack time and bed time.

Other comments:

- Staff are very good people
- Deciding to provide companion service for a relative is one big guilt trip.

32. The Special Care Unit has met my expectations.

Total Comments: 3

Theme: not enough staff

- The recurring comment that staff are great but too few again appears. A family member was disappointed that there wasn't more one to one attention and that the resident would be stimulated more.

Other comments:

- Staff are doing the best they can with the physical limitations of the building, residents should be integrated more into the facility functions and taken out of the building more often
- Residents make use of the lounge and kitchen areas and this is better than it was before the renovations.

- One family member expressed a feeling that she doesn't worry about her relative now because she knows she is looked after.

4.1.4. Quantitative analysis of open ended questions

33. Do you feel that the SCU has had an impact on your relative's quality of life?

Total Comments: 20

Theme: families feel positive about the unit

- There is a generally positive feeling that the quality of life of the resident has been maintained.
- There is still agitation but it is much easier to calm the resident down.
- Residents get very supportive care and thus appears more relaxed and free to wander and do as he/she wants on his/her own schedule.
- Since the unit has been redone, there is more care. Prior to the change, staff time was used up on residents with heavy physical care needs. Staff consistency has also been a good thing/it is quieter, not as busy.
- That staff are much better, they have a better feel for some of the resident's problems, they are better trained.

General comments:

- Having a private room is good as roommates can be incompatible
- Medical care and prescription management, personal hygiene and safety have improved,

- There is more interaction with others,
- The higher staff ratio has had an impact, other units have fewer staff.
- One family member commented that her mother has twelve hours of care of private care.
- “She never uses the amenities, she doesn’t sit in the lounge or pace or wander. Her private companion will take her outside. I wonder if there is any impact on mother?”

34. What changes have you seen in your relative’s behavior, physical functioning or mental status that you attribute to the SCU?

Total Comments: 15

Theme: the SCU has improved resident comfort level

- The residents seem more relaxed, the home like atmosphere is more comfortable, the dining room atmosphere is better, its calmer, and looks better.
- The residents are able to walk freely on the unit and the residents feel safe and familiar on the unit. It’s a small more structured unit so residents are not so lost.

Other comments:

- The resident gets better care and attention than before, eating better, more effort being made to improve diet, exercise, self image (hair and nails) and

behavior using consistent behavior modification techniques.

- Mother had two falls after admission to the unit and she has declined since then. With a fractured hip and the progression of the disease, it is hard to assess impact of the unit. Mental and physical and behavioral status have deteriorated but not due to the care.

35. What would you change in order to improve the SCU?

Total Comments: 16

Several comments were made regarding changes to the physical design of the unit:

- It's better to have unit on the main floor
- The hallways are too long,
- Some residents have a fear of heights so unit should be on the main floor
- The renovation process was hard on mother, the design is very pleasing, the unit
- Should be designed in a circular fashion so there are no dead ends or doors
- Hand rails in open living areas are needed
- Use color variations from room to room
- Do not use a combination bathroom and bedroom door as this does not promote independent toileting
- Mirrors in rooms and bathroom should be removed, use curtains, toss pillows, carpeted areas, home-like wallpaper and plants in design
- Chairs do not fit short people

- Vinyl flooring is institutional
- Water proofing of chairs is needed
- The unit needs to be bigger with a separate closed off room for visiting.

Theme: not enough staff

- More staff are needed on weekends, staff are run ragged
- Have had to have private companion for mom
- More staff needed especially in the summer
- Hire more staff and pay them more
- Staff do an excellent job given the work and that the patient's can't get better, more staff would allow residents to stay up longer after supper.

Theme: not enough recreation programming

- Develop more individual programs,
- A Sunday program would be enjoyable, music could be playing in the background
- No one watches T.V.
- Exercise and more activity in the afternoon and after supper would be good, puzzles, balls and games should be set up in a place where they can be done informally when families are visiting.

Some general comments:

- The private rooms are very good
- Mild dementia sufferers should not be mixed with the more severe, mother has been hit and this is terrible
- Reduce the quantity of food, there is too much wastage.

36.1 Please comment on how you feel the home - like design of the unit has affected your relative.

Total Comments: 18

Theme: the SCU has improved resident comfort level

- The home like design is important, it's more comfortable, has a calming effect
- The kitchen makes it more familiar and the small environment feels more comfortable.
- It feels like home.
- It's easier to accept being here.
- It doesn't feel cooped up, it's great with the chesterfield, t.v. and fireplace.

One additional comment:

- It is beyond mother's enjoyment/benefit but I as a family member really like it for me it's nice, but for her, I don't know.

36.2 How do you feel the multi-skilled care givers has affected your relative?

Total Comments: 18

Theme: multi-skilling is a positive feature of SCU

- This is excellent, very positive, an advantage and very helpful. It's good because it is a better use of time, the residents get more attention.
- Why not adopt this for the whole facility?
- The housekeeper is more involved, they take more of an interest in the resident and can walk with those who need it.
- The companion can call on someone else besides the Health Care Aide to help her.

Some general comments:

- The Recreation worker should not be included as her talents are wasted on toileting residents and not everyone wants to do cleaning so this area is neglected
- Staff are more accepting of mother's limitations
- They're wonderful but not enough of them.
- I just wonder if the housekeeping staff is really qualified to be doing care.

36.3 How do you feel staff skills in working with residents with dementia have affected your relative?

Total Comments: 15

Theme: families have high regard for staff skills

- That staff skills are important,
- The staff at all levels are impressive, they staff never raise their voices and are kind and patient.
- The staff skills have improved, training has increased.
- The resident responds well to their skills and they are more accepting of the resident's limitations.

Some general comments:

- Staff address resident by the first name but resident may respond better to more formal address
- Staff are not trained in dealing with sexual behavior
- Casual and weekend staff not as good as they do not have the patience or individual resident knowledge,
- Some staff have personality traits that aren't conducive to what they are doing, not a proper distance between the resident and a certain staff member.

36.4 How do you feel the staff to resident ratio has affected your relative?

Total Comments: **18**

Theme: the staff to resident ratio is good/excellent

Theme: enough staff despite being more than other units, evenings and nights are staffed poorly as are weekends

One additional comment:

- Staff should toilet mother more often then they wouldn't have to spend the time to clean her up after an accident.

36.5 How do you feel the involvement of families has impacted on your relative?

Total Comments: **15**

- Family members commented that family involvement has been good on the unit. Staff respond to the requests made and are very polite and answer all questions.
- Staff make the family members feel comfortable. The environment is conducive to family involvement and there are no family restrictions.

Some general comments:

- Keeping families more involved/informed could be improved.
- Not much has been done in regard to family involvement. Sunday would be

a good day to do a family event. However, it is awkward with the type of residents on the unit,

- 'It's too noisy and chaotic for visiting so we go off the unit'.
- Staff do a nice job on birthday parties
- We were encouraged to have a family dinner on the unit but it didn't work out.

36.6 How do you feel the provision for safe wandering has impacted on your relative?

Total Comments: 16

- Family members commented that this has been good/ excellent for those who need it, it's great because nothing can happen. The locked doors made them feel extremely comfortable as they know their relative can wander as she likes.

Additional comments:

- The unit is too small, too closed in
- Safety was compromised when the hooyer lift was left in the hall and a resident fell over it. (Mechanical lift for transferring residents who are none weight bearing)

36.7 How do you feel access to outdoors has impacted your relative?

Total Comments: 12

Theme: access to outdoors would be a welcome feature

- **It would have been nice to have better access to outdoors. Fresh air is good for everyone including staff.**

Additional comment:

- **One family member felt that their relative doesn't like the outdoors and last time they went out they had a hard time getting the resident back in.**
- **Another noted that the resident used to enjoy the park but always wanted to go back home right away- maybe it doesn't matter anymore.**
- **"Mother loves the outdoors but it is hard to say if she would use it now".**

Additional comments:

- **"She is in the right place. In retrospect, I wish she had been placed there sooner".**
- **I appreciate the work of the professional nurse on the unit.**
- **The practice of restraint has been suspended.**
- **There is privacy but residents do wander into mother's room.**
- **She's really gone downhill. In a confusing environment, you get confused.**
- **She needs stimulation.**
- **Success depends on who is at the helm. The nurse is very much in charge and this filters down.**
- **Since the nurse has come on board, things have improved. The staff seem**

happy in what they are doing.

- The nurse manager is very good. She is receptive to family ideas, possible medical/psychiatric interventions.
- Staff are telling families inappropriate events that are happening to the resident. Staff need to know how to talk to families.

Summary

While there is little research into family members perceptions of effectiveness of Special Care Units, Stephen McConnell (1994) reported on an Alzheimer's Association Study done in the USA which studied the perceptions of 453 family members who had a family member in an SCU. Results shows that family members were satisfied with the care their loved one was receiving and the overwhelming majority would place their loved ones in the same SCU again. Despite their satisfaction with the units, more than 20% reported specific problems (however these were not provided in the report).

Dupuis, Dobbelsteyn and Ericson (1996) also interviewed family members of SCU residents and identified the major benefits of the SCU as perceived by family members. These were the freedom to wander, improved social behaviors, the provision for opportunities for meaningful activities that reflect prior interest yet remain sensitive to current abilities and the frequent physical demonstration of caring by staff.

Mathew, Sloan, Kilby and Flood (1988) also measured family satisfaction and concluded that families were satisfied with the physical surrounding, medical and nursing care and a feeling that the patient was better off in the nursing home as compared to his own home.

The Sharon Home family members were also satisfied with the care and physical surroundings the SCU but they identified a number of concerns:

1. The unit is perceived to be short staffed, especially on evenings and nights.
2. Family members feel there is not enough recreation programming and the programming may not be appropriate for the cognitive status of residents on the unit.
3. Environmental clues such as memory boards are perceived to be ineffectual due to the cognitive deficits of the SCU residents.
4. Family members feel that design features such as the height of the chairs, the lack of water proofing on the chairs, the use of vinyl instead of carpet, the dual purpose bathroom/bedroom doors, the color of the resident rooms could be addressed to improve the unit.
5. Access to outdoors is lacking but family members acknowledge that this was unavoidable due to the limitations imposed by the existing building.

Sharon Home family members also identified the major benefits of the SCU as

they perceived them:

1. The meal service is provided in a flexible, resident focused manner. Residents meals are reheated if they would rather not sit at meal time, extra portions and alternates are available, staff take the time required for resident to finish the meal.
2. The professional nursing care is highly regarded by family members. The charge nurse is seen as responsive to family concerns and a positive role model to support staff.
3. The SCU has impacted positively on the quality of life of the residents, providing a more relaxed, comfortable, home-like environment with the freedom to wander safely.
4. The multi-skilled care giver is perceived as an excellent feature which families feel results in more attention being given to residents by more staff members.
5. Staff skills in working with residents with dementia are also perceived as very positive.
6. The staff to resident ratio is also perceived as a benefit, however, families also feel the unit could be even better staffed.
7. Family members perceive the multi-skilled worker, the staff to resident ratio and the staff skills in working with dementia to be the most important SCU features.

4.1.3 Ranking of SCU features

Table 6 Frequency distribution of ranks for SCU features

| Feature | Rank | | | | | | | not ranked | score |
|---------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|------------|------------|
| | 1 st | 2 nd | 3 rd | 4 th | 5 th | 6 th | 7 th | | |
| 37a | 3 | 3 | 0 | 5 | 7 | 0 | 0 | 0 | 80 |
| 37b | 3 | 6 | 1 | 4 | 1 | 0 | 2 | 1 | 83 |
| 37c | 7 | 7 | 2 | 2 | 0 | 0 | 0 | 0 | 109 |
| 37d | 4 | 2 | 9 | 2 | 1 | 0 | 0 | 0 | 96 |
| 37e | 1 | 0 | 1 | 0 | 0 | 7 | 8 | 1 | 34 |
| 37f | 0 | 0 | 5 | 2 | 5 | 4 | 0 | 2 | 56 |
| 37g | 0 | 0 | 0 | 2 | 3 | 5 | 6 | 2 | 33 |
| Sum | 18 | 18 | 18 | 17 | 17 | 16 | 16 | 6 | |

Notes

Score = 7 x (# of firsts) + 6 x (# of seconds) + 5 x (# of thirds) + 4 x (# of fourths) + 3 x (# of fifths) + 2 x (# of sixths) + 1 x (# of sevenths). Features with higher scores were perceived to be more important. Maximum possible score for a feature is 7 x 18 = 126.

In the final section of the survey, family members were asked to rank the SCU features in their order of importance in terms of impact on the residents. The data was scored by multiplying 7 by the number of times the feature was ranked first, multiplying 6 by the number of times it was ranked second, 5 by the number

of times it was ranked third, 4 by the number of times it was ranked fourth, 3 by the number of times it was ranked fifth, 2 by number of times ranked sixth and 1 by number of times ranked seventh with a maximum score being 126. Table 6 illustrates the results. Staff skills in working with residents with dementia ranked first, staff to resident ratio ranked second, the multi-skilled worker ranked third, the home-like design ranked fourth, the provision for safe wandering ranked fifth, the involvement of families ranked sixth and the access to outdoors ranked seventh. Clearly, those features pertaining to staffing were considered most important to family members.

4.1.4 Retrospective Baseline study results

Tables 7 to 21 display the results of the repeated measurements of the sixteen variables measured both prior to and after admission to the Special Care Unit. Measurement 1 is taken at admission to the Sharon Home, measurement 2 is taken at 6 months prior to admission to the SCU, measurement 3 is taken 6 months post admission to SCU, measurement 4 is taken at 12 months post admission, measurement 5 is taken 18 months post admission and measurement 6 is taken 21 months post admission.

The impact of the SCU on resident mental status was not able to be measured due to lack of baseline data. While all residents had the Folstein's Mini Mental Exam done upon admission to the facility and post SCU, only five residents had a pre SCU score. However, of the five residents who did have baseline scores, one

scored 8/30 and remained the same at the next measurement taken 12 months post SCU, one improved from 12/30 to 13/30 12 months post SCU, one improved from 11/30 to 13/30 six months post SCU, one scored 0/30 pre SCU and remained at 0/30 18 months post SCU and the fifth resident declined from 11/30 to 0/30 18 months post SCU.

Research done by Kujawinsky et al. (1993) indicated that 40% of the residents demonstrated a slight improvement in the Mini Mental Status Exam between admission and discharge from a SCU while 15% showed a marked improvement. McCracken and Fitzwater (1989) also studied mental status and functional status using a Dementia Behavior Scale and determined that after living on a SCU for a year, eight of the eleven residents had improved function. However, the research done by Holmes et al.(1990) indicated that relatively little change occurred among the residents and the general direction of almost all changes was in the deviant direction. This study included the measurements of mental status, behavior and physical status and the data suggested that the impact of SCU in terms of all of the dimensions studied was both nonsignificant and trivial. Greene (1985) also found that there was improvement in cognitive skills of the six residents he studied longitudinally.

**Table 7 Repeated measures of Moore's functional dementia scale score
Sorted by Moore value at time M1**

| Client | Age | Sex | Variable | M1 | M 2 | M3 | M4 | M5 | M6 |
|---------------|------------|------------|-----------------|-----------|------------|-----------|-----------|-----------|-----------|
| 9 | 62 | F | Moore | 23 | 23 | 23 | 23 | 23 | X |
| 1 | 86 | F | Moore | 29 | 41 | 37 | X | X | X |
| 10 | 87 | F | Moore | 31 | 31 | 31 | 31 | 31 | 31 |
| 11 | 90 | F | Moore | 35 | 35 | 35 | 35 | 39 | X |
| 4 | 85 | F | Moore | 36 | 36 | 39 | 42 | 44 | X |
| 5 | 86 | F | Moore | 39 | 46 | 44 | X | X | X |
| 7 | 89 | F | Moore | 39 | 37 | 37 | 37 | 37 | X |
| 14 | 87 | F | Moore | 40 | 53 | 53 | 55 | X | X |
| 6 | 91 | F | Moore | 45 | 45 | 47 | X | X | X |
| 8 | 84 | M | Moore | 45 | 45 | 43 | 43 | X | X |
| 13 | 92 | F | Moore | 45 | 41 | 41 | 41 | 41 | X |
| 3 | 68 | M | Moore | 50 | 50 | 56 | X | X | X |
| 12 | 91 | F | Moore | 59 | 59 | 59 | 59 | 59 | X |
| 2 | 87 | F | Moore | N | X | X | X | X | X |

Notes:

M1 = admission to facility

M2 = 6 months pre SCU

M3 = 6 months post SCU

M4 = 12 months post SCU

M5 = 18 months post SCU

M6 = 22 months post SCU

X = no measurement

Table 7 illustrates the repeated measures of Moore's functional dementia scale. Clients # 9, # 10 and # 12 remained the same over time while seven clients scores increased indicating a decline in functional dementia status. However, in most of these cases the score indicates a very slight decline. Three clients scored lower indicating a slight improvement over time.

**Table 8 Repeated measures of level of care
Sorted by care level at time M1**

| Client | Age | Sex | Variable | M1 | M 2 | M3 | M4 | M5 | M6 |
|---------------|------------|------------|-----------------|-----------|------------|-----------|-----------|-----------|-----------|
| 1 | 86 | F | Care | 2 | 3y | 3y | X | X | X |
| 2 | 87 | F | Care | 2 | 3y | 3y | 3y | 3y | 4y |
| 4 | 85 | F | Care | 2 | 2y | 3y | 3y | 4y | X |
| 5 | 86 | F | Care | 2 | 3y | 3y | X | X | X |
| 7 | 89 | F | Care | 2 | 3y | 3y | 3y | 3y | X |
| 8 | 84 | M | Care | 2 | 2 | 2 | 3y | X | X |
| 9 | 62 | F | Care | 2 | 3y | 3y | 3y | 3y | X |
| 6 | 91 | F | Care | 3 | 3y | 4y | X | X | X |
| 10 | 87 | F | Care | 3 | 3 | 3y | 3y | 3y | 3y |
| 11 | 90 | F | Care | 3 | 3 | 3y | 3y | 3y | X |
| 13 | 92 | F | Care | 3 | 3y | 3y | 3y | 3y | X |
| 14 | 87 | F | Care | 3 | X | 3y | 3y | X | X |
| 12 | 91 | F | Care | 3y | 3y | 3y | 3y | 3y | X |
| 3 | 68 | M | Care | 4y | X | 4y | X | X | X |

Notes:

M1 = admission to facility

M2 = 6 months pre SCU

M3 = 6 months post SCU

M4 = 12 months post SCU

M5 = 18 months post SCU

M6 = 22 months post SCU

X = no measurement

Table 8 illustrates repeated measures on the variable level of care. Level of care is measured as follows with 2 being the lightest care and 4y being the heaviest level: 2, 2y, 3, 3y, 4, 4y. There was virtually no missing data on this variable. Comparing measurement 2 with subsequent measures, eight clients remained at the same level of care post admission to the unit while the other six clients increased in care.

Both the Moore's functional dementia scale scores and the level of care scores represent what other studies have called the ADL scores, or Activities of Daily Living. David Thomas' (1996) research concluded that ADL scores improved for the fifteen SCU residents studied prior to and after SCU admission. Improved ADL scores suggested that competency based behaviors can be maintained or improved on a SCU. Benson et al. (1987) also found similar results in their research and concluded that improvement was highly significant in mental and emotional status as well as basic functions of daily living after four months on the SCU. Kujawinsky et al. (1993) also found that the largest percentage of their sample population of SCU residents showed a slight improvement in their GPNRS score, a scale to measure activities of daily living.

**Table 9 Repeated measures of weight
Sorted by weight at time M1**

| Client | Age | Sex | Variable | M1 | M 2 | M3 | M4 | M5 | M6 |
|---------------|------------|------------|-----------------|-----------|------------|-----------|-----------|-----------|-----------|
| 1 | 86 | F | Weight | 78.0 | 71.4 | 78.0 | X | X | X |
| 11 | 90 | F | Weight | 94.0 | 96.2 | 109.6 | 114.0 | 112.0 | X |
| 7 | 89 | F | Weight | 98.0 | 100.0 | 105.0 | 105.0 | 104.0 | X |
| 12 | 91 | F | Weight | 108.0 | 102.4 | 101.0 | 99.0 | 108.5 | X |
| 13 | 92 | F | Weight | 110.0 | 118.0 | 110.0 | 125.0 | 127.0 | X |
| 9 | 62 | F | Weight | 113.0 | 143.0 | 143.0 | 152.0 | 162.0 | X |
| 2 | 87 | F | Weight | 118.5 | 103.0 | 100.7 | 108.1 | 117.0 | 111.0 |
| 10 | 87 | F | Weight | 120.0 | 111.0 | 115.0 | 116.4 | 126.0 | 126.0 |
| 4 | 85 | F | Weight | 121.0 | 144.0 | 142.0 | 145.0 | 156.0 | X |
| 14 | 87 | F | Weight | 121.0 | X | 122.0 | 124.0 | X | X |
| 5 | 86 | F | Weight | 125.0 | 161.0 | 151.0 | X | X | X |
| 6 | 91 | F | Weight | 126.6 | 120.0 | 129.0 | X | X | X |
| 3 | 68 | M | Weight | 137.0 | X | 139.0 | X | X | X |
| 8 | 84 | M | Weight | 149.0 | 149.0 | 142.0 | 160.0 | X | X |

Notes:

M1 = admission to facility

M2 = 6 months pre SCU

M3 = 6 months post SCU

M4 = 12 months post SCU

M5 = 18 months post SCU

M6 = 22 months post SCU

X = no measurement

Table 9 displays the repeated measures of weight in pounds. For this variable there was also very little missing data. In all cases except one, clients increased in weight post admission to the SCU. For client # 5, weight upon admission to the facility increased from 125 pounds upon admission to the facility to 161 upon admission to the SCU and then decreased to 151 pounds.

A number of researchers have studied weight of SCU residents and traditional

unit residents and have found that SCU residents have improved in weight. Cleary et al. 1988; Hall et al.1986; Schwab et al.1985; McGrowder-Lin et al. 1988). However, David Thomas' (1996) study indicated that weight was shown not to differ significantly between the traditional units and the SCU in a Philadelphia Nursing Home. The Mathew et al. (1988) study also showed no significant difference in weight loss between the SCU and traditional units.

**Table 10 Repeated measures of episodes of sleep disturbance
Sorted by number of episodes at time M3**

| Client | Age | Sex | Variable | M1 | M 2 | M3 | M4 | M5 | M6 |
|---------------|------------|------------|-----------------|-----------|------------|-----------|-----------|-----------|-----------|
| 4 | 85 | F | Sleep | 0 | 0 | 0 | 0 | 0 | X |
| 7 | 89 | F | Sleep | N | 1 | 0 | 1 | 1 | X |
| 9 | 62 | F | Sleep | N | 14 | 0 | 6 | 3 | X |
| 11 | 90 | F | Sleep | N | 3 | 0 | 3 | 4 | X |
| 1 | 86 | F | Sleep | N | 8 | 1 | X | X | X |
| 5 | 86 | F | Sleep | N | 1 | 2 | X | X | X |
| 6 | 91 | F | Sleep | N | 1 | 3 | X | X | X |
| 13 | 92 | F | Sleep | N | 1 | 4 | 1 | 1 | X |
| 10 | 87 | F | Sleep | N | 4 | 5 | 7 | 0 | 0 |
| 12 | 91 | F | Sleep | N | 17 | 27 | 14 | 9 | X |
| 8 | 84 | M | Sleep | N | 2 | 32 | 7 | X | X |
| 14 | 87 | F | Sleep | N | X | 33 | 12 | X | X |
| 2 | 87 | F | Sleep | N | 18 | 36 | 55 | 30 | 17 |
| 3 | 68 | M | Sleep | N | X | 48 | X | X | X |

Notes:
M1 = admission to facility
M2 = 6 months pre SCU
M3 = 6 months post SCU
M4 = 12 months post SCU
M5 = 18 months post SCU
M6 = 22 months post SCU
X = no measurement

Table 10 displays the repeated measures of episodes of sleep disturbance. At

measurement 1, admission to the facility, there is no data available regarding previous sleep pattern. Measurement of this variable begins 6 months prior to admission to the SCU. It is clear that sleep disturbance does not affect all clients of the SCU. Six of the clients had no or few episodes of sleep disturbance and incidence remained the same over time. Clients # 9, # 1 and # 10 had moderate occurrence of sleep disturbance and over time these occurrences decreased. Of interest are the five clients who did exhibit consistent sleep disturbance. Client # 12 showed an increase in sleep disturbance post admission to SCU then a gradual decline in occurrence. Client # 8 showed a large increase in sleep disturbance post admission to SCU however, this client's pre SCU measurement was for a one month period, not a six month period. Episodes of sleep disturbance have decreased at the six months post SCU measurement. Client # 14 showed a decreased in sleep disturbance post SCU while client # 2 showed an initial increase and then a decrease to the pre SCU level.

Kovach and Stearns (1994) studied SCU residents before and after admission and found that on the variable diurnal rhythm disturbances, there was insignificant difference between before and after measures.

**Table 11 Repeated measures of episodes of wandering/pacing/exit seeking
Sorted by number of episodes at time M3**

| Client | Age | Sex | Variable | M1 | M 2 | M3 | M4 | M5 | M6 |
|---------------|------------|------------|-----------------|-----------|------------|-----------|-----------|-----------|-----------|
| 1 | 86 | F | Wander | N | 0 | 0 | X | X | X |
| 6 | 91 | F | Wander | N | 0 | 0 | X | X | X |
| 7 | 89 | F | Wander | N | 2 | 0 | 0 | 0 | X |
| 9 | 62 | F | Wander | N | 0 | 0 | 0 | 0 | X |
| 10 | 87 | F | Wander | N | 0 | 0 | 0 | 0 | 0 |
| 11 | 90 | F | Wander | N | 2 | 0 | 0 | 0 | X |
| 12 | 91 | F | Wander | N | 1 | 0 | 0 | 0 | X |
| 5 | 86 | F | Wander | N | 3 | 1 | X | X | X |
| 13 | 92 | F | Wander | N | 1 | 1 | 0 | 0 | X |
| 14 | 87 | F | Wander | N | X | 1 | 0 | X | X |
| 3 | 68 | M | Wander | N | X | 2 | X | X | X |
| 4 | 85 | F | Wander | N | 17 | 2 | 0 | 0 | X |
| 8 | 84 | M | Wander | N | 16 | 32 | 17 | X | X |
| 2 | 87 | F | Wander | N | daily | daily | daily | daily | daily |

Notes:

M1 = admission to facility

M2 = 6 months pre SCU

M3 = 6 months post SCU

M4 = 12 months post SCU

M5 = 18 months post SCU

M6 = 22 months post SCU

X = no measurement

Table 11 displays the data for episodes of wandering/pacing or exit seeking behavior. Four of the SCU clients did not display any of these behaviors while seven clients experienced 3 or less episodes of these behaviors and all of these clients experienced a decrease in episodes post SCU. The three clients who experience these behaviors on a consistent basis showed varying results. Client # 4 showed a dramatic decrease in behavior post SCU to the point where the behavior no longer manifests itself. Client # 8 also showed a decrease in

behavior, however, the behavior continues to be problematic for this resident.

Client # 2 has pacing behavior which occurs on a daily basis and has shown no increase or decrease over time.

The Kovach and Stearns (1994) study also measured wandering behavior and concluded that four of the twenty four residents on the unit showed a dramatic decrease in wandering, preservation, rummaging and other seemingly purposeless activity.

**Table 12 Repeated measures of number of falls
Sorted by number of falls at time M3**

| Client | Age | Sex | Variable | M1 | M 2 | M3 | M4 | M5 | M6 |
|--------|-----|-----|----------|----|-----|----|----|----|----|
| 1 | 86 | F | Falls | N | 0 | 0 | X | X | X |
| 7 | 89 | F | Falls | N | 1 | 0 | 1 | 2 | X |
| 9 | 62 | F | Falls | N | 5 | 0 | 0 | 0 | X |
| 13 | 92 | F | Falls | N | 0 | 0 | 0 | 0 | X |
| 6 | 91 | F | Falls | N | 2 | 1 | X | X | X |
| 10 | 87 | F | Falls | N | 1 | 1 | 1 | 0 | 1 |
| 11 | 90 | F | Falls | N | 0 | 1 | 0 | 0 | X |
| 4 | 85 | F | Falls | N | 0 | 2 | 0 | 2 | X |
| 5 | 86 | F | Falls | N | 4 | 2 | X | X | X |
| 8 | 84 | M | Falls | N | 0 | 2 | 0 | X | X |
| 2 | 87 | F | Falls | N | 5 | 3 | 12 | 4 | 3 |
| 14 | 87 | F | Falls | N | X | 4 | 2 | X | X |
| 12 | 91 | F | Falls | N | 3 | 5 | 1 | 3 | X |
| 3 | 68 | M | Falls | N | X | 14 | X | X | X |

Notes:

M1 = admission to facility

M2 = 6 months pre SCU

M3 = 6 months post SCU

M4 = 12 months post SCU

M5 = 18 months post SCU

M6 = 22 months post SCU

X = no measurement

Table 12 displays the data for number of falls. Two clients have experienced

no falls either pre or post SCU while the remaining 12 have all had falls while on the unit. However, three clients have seen a decrease in their number of falls from 5 to 0, from 2 to 1 and from 4 to 2 falls. For two clients who were admitted directly onto the SCU and therefore had no pre SCU measurement, one has had 14 falls and the other had 4 falls in the first six months post SCU and then 2 in the next six month period. The remaining six clients showed an increase in the number of falls post SCU. Five of these were slight increases except client # 2 who had 12 falls at measurement # 4 before returning to a consistent fall rate of 3 or 4 per six month period.

The Mathew et al.(1988) study did not find any statistically significant difference between the percentage of falls on the SCU and the comparison traditional units whereas David Thomas (1996) did find a near significant increase in falls on the SCU.

**Table 13 Repeated measures of number of injuries
Sorted by number of injuries at time M3**

| Client | Age | Sex | Variable | M1 | M 2 | M3 | M4 | M5 | M6 |
|--------|-----|-----|----------|----|-----|----|----|----|----|
| 1 | 86 | F | Injuries | N | 0 | 0 | X | X | X |
| 3 | 68 | M | Injuries | N | X | 0 | X | X | X |
| 4 | 85 | F | Injuries | N | 0 | 0 | 0 | 0 | X |
| 6 | 91 | F | Injuries | N | 0 | 0 | X | X | X |
| 7 | 89 | F | Injuries | N | 0 | 0 | 0 | 0 | X |
| 8 | 84 | M | Injuries | N | 0 | 0 | 0 | X | X |
| 9 | 62 | F | Injuries | N | 0 | 0 | 0 | 0 | X |
| 11 | 90 | F | Injuries | N | 0 | 0 | 0 | 0 | X |
| 13 | 92 | F | Injuries | N | 0 | 0 | 2 | 2 | X |
| 14 | 87 | F | Injuries | N | X | 1 | 0 | X | X |
| 5 | 86 | F | Injuries | N | 0 | 2 | X | X | X |
| 10 | 87 | F | Injuries | N | 0 | 2 | 0 | 0 | 0 |
| 2 | 87 | F | Injuries | N | 2 | 3 | 6 | 15 | 0 |
| 12 | 91 | F | Injuries | N | 7 | 4 | 1 | 4 | X |

Notes:

M1 = admission to facility

M2 = 6 months pre SCU

M3 = 6 months post SCU

M4 = 12 months post SCU

M5 = 18 months post SCU

M6 = 22 months post SCU

X = no measurement

Table 13 indicates number of injuries including bruises, cuts, scratches of known and unknown cause. Eight of the SCU clients experienced no injuries either before or after admission to the unit. Four clients did experience injuries post SCU while having none prior to admission to the unit. Two clients, # 2 and # 12 experienced injuries both pre and post admission to SCU however, client # 2 showed a dramatic increase in injuries at measurement 5 (15 injuries) and then a dramatic decline in injures to 0 at measurement # 6. Client # 12 experienced 7

injuries prior to SCU and has experienced injuries post SCU but not as many.

Again, the Mathew et al. (1988) study indicated that there were no significant differences between the SCU and traditional units in terms of percentages of injuries.

**Table 14 Repeated measures of number of altercations
Sorted by number of altercations at time M3**

| Client | Age | Sex | Variable | M1 | M 2 | M3 | M4 | M5 | M6 |
|--------|-----|-----|--------------|----|-----|----|----|----|----|
| 3 | 68 | M | Altercations | N | X | 0 | X | X | X |
| 5 | 86 | F | Altercations | N | 2 | 1 | X | X | X |
| 6 | 91 | F | Altercations | N | 0 | 1 | X | X | X |
| 8 | 84 | M | Altercations | N | 0 | 1 | 3 | X | X |
| 9 | 62 | F | Altercations | N | 6 | 1 | 3 | 1 | X |
| 11 | 90 | F | Altercations | N | 0 | 1 | 0 | 1 | X |
| 13 | 92 | F | Altercations | N | 2 | 1 | 1 | 0 | X |
| 14 | 87 | F | Altercations | N | X | 1 | 0 | X | X |
| 1 | 86 | F | Altercations | N | 0 | 2 | X | X | X |
| 2 | 87 | F | Altercations | N | 7 | 2 | 4 | 3 | 3 |
| 4 | 85 | F | Altercations | N | 0 | 2 | 0 | 0 | X |
| 7 | 89 | F | Altercations | N | 1 | 2 | 1 | 3 | X |
| 12 | 91 | F | Altercations | N | 2 | 3 | 0 | 0 | X |
| 10 | 87 | F | Altercations | N | X | X | X | X | X |

Notes:

M1 = admission to facility

M2 = 6 months pre SCU

M3 = 6 months post SCU

M4 = 12 months post SCU

M5 = 18 months post SCU

M6 = 22 months post SCU

X = no measurement

Table 14 displays the number of altercations each resident has been involved in with another resident. This variable was measured based on staff observations and reports of altercations by unit staff and is therefore reliant on staff motivation to document the behavior and interpretation of the behavior. Only one client has not been involved in an altercation while the remaining 12 clients have had at

least one altercation. For client # 10 this data was not available. Four clients showed a decrease in the number of altercations post SCU while seven clients showed an increase although only slight. Client # 2 shows an interesting pattern of consistent participation in altercations from seven incidents pre SCU to a fewer but nevertheless continual number of 2, 3 or 4 per six month period.

These findings would support Donat's (1986) study findings which describe an increase in altercations among geriatric residents in institutions.

**Table 15 Repeated measures of number of episodes of agitated behavior
Sorted by number of episodes at time M3**

| Client | Age | Sex | Variable | M1 | M 2 | M3 | M4 | M5 | M6 |
|--------|-----|-----|----------|----|-------|-------|-------|-------|----|
| 4 | 85 | F | Agitated | N | 1 | 0 | 0 | 1 | X |
| 7 | 89 | F | Agitated | N | 0 | 0 | 1 | 1 | X |
| 1 | 86 | F | Agitated | N | 2 | 1 | X | X | X |
| 2 | 87 | F | Agitated | N | 23 | 1 | 0 | 0 | 0 |
| 13 | 92 | F | Agitated | N | 2 | 1 | 4 | 0 | X |
| 11 | 90 | F | Agitated | N | 1 | 2 | 3 | 6 | X |
| 3 | 68 | M | Agitated | N | X | 4 | X | X | X |
| 5 | 86 | F | Agitated | N | 17 | 4 | X | X | X |
| 10 | 87 | F | Agitated | N | 5 | 6 | 9 | 11 | 4 |
| 8 | 84 | M | Agitated | N | 13 | 10 | 4 | X | X |
| 9 | 62 | F | Agitated | N | 8 | 14 | 14 | 7 | X |
| 14 | 87 | F | Agitated | N | X | 45 | 31 | X | X |
| 6 | 91 | F | Agitated | N | daily | daily | X | X | X |
| 12 | 91 | F | Agitated | N | daily | daily | daily | daily | X |

Notes:

M1 = admission to facility

M2 = 6 months pre SCU

M3 = 6 months post SCU

M4 = 12 months post SCU

M5 = 18 months post SCU

M6 = 22 months post SCU

X = no measurement

Table 15 shows the episodes of agitated behavior. Four of the residents

experience minimal if any agitation either pre or post SCU and they remained the same over time. Four clients appear to have increased slightly in their episodes of agitation while four have decreased. (Client # 2 decreased dramatically from 23 episodes pre SCU to 1 episode post SCU as did client # 5). Two clients, # 6 and # 12 experience agitation on a daily basis with neither an appreciable decrease or increase in behavior pre or post SCU. Agitated behavior is also a variable which relies on the interpretation of staff members and their motivation to report the behavior.

Kovach and Stearn's (1994) results indicated that there was a decrease in agitated behavior. In their study, behaviors included activity disturbances, aggression, affective disturbances and social interactions and they all showed improvement after the SCU opened.

**Table 16 Repeated measures of number of episodes of aggressive behavior
Sorted by number of episodes at time M3**

| Client | Age | Sex | Variable | M1 | M 2 | M3 | M4 | M5 | M6 |
|---------------|------------|------------|-----------------|-----------|------------|-----------|-----------|-----------|-----------|
| 1 | 86 | F | Aggressive | N | 0 | 0 | X | X | X |
| 4 | 85 | F | Aggressive | N | 0 | 0 | 0 | 0 | X |
| 6 | 91 | F | Aggressive | N | 0 | 0 | X | X | X |
| 10 | 87 | F | Aggressive | N | 0 | 0 | 0 | 1 | 0 |
| 11 | 90 | F | Aggressive | N | 0 | 0 | 0 | 0 | X |
| 12 | 91 | F | Aggressive | N | 2 | 0 | 0 | 0 | X |
| 2 | 87 | F | Aggressive | N | 5 | 1 | 5 | 0 | 1 |
| 7 | 89 | F | Aggressive | N | 2 | 1 | 1 | 2 | X |
| 5 | 86 | F | Aggressive | N | 7 | 2 | X | X | X |
| 9 | 62 | F | Aggressive | N | 8 | 2 | 3 | 0 | X |
| 13 | 92 | F | Aggressive | N | 1 | 2 | 4 | 6 | X |
| 14 | 87 | F | Aggressive | N | X | 4 | 3 | X | X |
| 8 | 84 | M | Aggressive | N | 4 | 6 | 2 | X | X |
| 3 | 68 | M | Aggressive | N | X | 9 | X | X | X |

Notes:

M1 = admission to facility

M2 = 6 months pre SCU

M3 = 6 months post SCU

M4 = 12 months post SCU

M5 = 18 months post SCU

M6 = 22 months post SCU

X = no measurement

Table 16 illustrates the episodes of aggressive behavior experienced by the SCU clients. Five of the SCU residents had either no aggressive behavior or only one episode. Four of the clients experienced a consistent pattern of intermittent and minimal aggressive episodes both pre and post SCU while two clients, # 9 and # 5 showed a more dramatic decrease in aggressive behavior post SCU. Client # 13 has shown a gradual increase in aggressive behavior over time. While client # 3 has no pre SCU score, this resident does experience aggressive behavior

as does client # 14. Again, aggressive behavior is a subjective measurement based on reports by staff members.

In kovach and Stearn's (1994) study, aggressive behavior was shown to decrease on the SCU while David Thomas' (1996) study showed there was no significant change in frequency of combative behavior between the SCU and traditional units.

**Table 17 Repeated measures of number of episodes of restraint use
Sorted by number of episodes at time M3**

| Client | Age | Sex | Variable | M1 | M 2 | M3 | M4 | M5 | M6 |
|--------|-----|-----|-----------|----|-----|----|----|----|----|
| 1 | 86 | F | Restraint | N | 0 | 0 | X | X | X |
| 4 | 85 | F | Restraint | N | 0 | 0 | 0 | 0 | X |
| 5 | 86 | F | Restraint | N | 1 | 0 | X | X | X |
| 7 | 89 | F | Restraint | N | 0 | 0 | 0 | 0 | X |
| 8 | 84 | M | Restraint | N | 0 | 0 | 0 | X | X |
| 9 | 62 | F | Restraint | N | 0 | 0 | 0 | 0 | X |
| 10 | 87 | F | Restraint | N | 0 | 0 | 0 | 0 | 0 |
| 11 | 90 | F | Restraint | N | 0 | 0 | 0 | 0 | X |
| 13 | 92 | F | Restraint | N | 0 | 0 | 0 | 0 | X |
| 6 | 91 | F | Restraint | N | 0 | 1 | X | X | X |
| 2 | 87 | F | Restraint | N | 2 | 2 | 2 | 2 | 2 |
| 12 | 91 | F | Restraint | N | 2 | 2 | 2 | 2 | X |
| 14 | 87 | F | Restraint | N | X | 2 | 2 | X | X |
| 3 | 68 | M | Restraint | N | X | 3 | X | X | X |

Notes:

M1 = admission to facility

M2 = 6 months pre SCU

M3 = 6 months post SCU

M4 = 12 months post SCU

M5 = 18 months post SCU

M6 = 22 months post SCU

X = no measurement

Table 17 displays the data for number of episodes of restraint use. While the data does not indicate an increase or decrease in restraint use, it does indicate that

restraint is used for five of the SCU clients. However, for two of these clients, restraint was also used pre SCU while the other two clients do not have a pre SCU score so restraint use is unknown pre SCU.

Other researchers have found a decrease in restraint use (Thomas, 1996; Mathew et al., 1988) while Kovach and Stearns (1994) study results concluded that, of the 15 residents studied, 4 increased their need for restraint, five decreased their need and six remained at the same level.

**Table 18 Repeated measures of medication use
Sorted by medication use at time M1**

| Client | Age | Sex | Variable | M1 | M 2 | M3 | M4 | M5 | M6 |
|---------------|------------|------------|-----------------|-----------|------------|-----------|-----------|-----------|-----------|
| 4 | 85 | F | Medication | 0 | 1 | 0 | -1 | 0 | X |
| 5 | 86 | F | Medication | 0 | 1 | 0 | X | X | X |
| 13 | 92 | F | Medication | 0 | 1 | 0 | 0 | 0 | X |
| 7 | 89 | F | Medication | 0 | 0 | 0 | 0 | 0 | X |
| 1 | 86 | F | Medication | 1 | 1 | 0 | X | X | X |
| 2 | 87 | F | Medication | 1 | 0 | 0 | 0 | 1 | 0 |
| 6 | 91 | F | Medication | 1 | 1 | 0 | X | X | X |
| 12 | 91 | F | Medication | 1 | 1 | 0 | 0 | 1 | X |
| 14 | 87 | F | Medication | 1 | X | 0 | 1 | X | X |
| 3 | 68 | M | Medication | 1 | X | 1 | X | X | X |
| 8 | 84 | M | Medication | 1 | 1 | 1 | 0 | X | X |
| 9 | 62 | F | Medication | 1 | 0 | 1 | 0 | 0 | X |
| 10 | 87 | F | Medication | 1 | 1 | 1 | 0 | 1 | 0 |
| 11 | 90 | F | Medication | 1 | 0 | 1 | -1 | 0 | X |

Codes: At time M1, 0 = no, 1 = yes

At other times, -1 = decreased, 0 = same, 1 = increased

Notes:

M1 = admission to facility

M2 = 6 months pre SCU

M3 = 6 months post SCU

M4 = 12 months post SCU

M5 = 18 months post SCU

M6 = 22 months post SCU

X = no measurement

Table 18 indicates psychotropic medication use. Psychotropic medication

refers to medications prescribed for the treatment of psychiatric disorders such as depression, agitation and anxiety. Measurement # 1 shows that upon admission to the facility, 10 of the 14 SCU clients were being prescribed some type of psychotropic medication. One resident continues to require no psychotropic medications while the remaining 13 have been prescribed some type of psychotropic medication. Four clients have remained on the same dosage or equivalent post SCU, five clients' medications have been increased and two have been decreased.

Kovach and Stearn (1994) found that only 6 of 15 SCU residents were receiving some type of psychotropic medication and at the end of the study, 2 residents had increased their dosage while the other 4 remained on the same dosage. No subjects reduced their medication use during the study period. Mathew et al. (1988) also found that SCU residents were prescribed more psychotropic medications than traditional unit residents.

**Table 19 Repeated measures of participation in therapeutic recreation
Sorted by level of participation at time M3**

| Client | Age | Sex | Variable | M1 | M 2 | M3 | M4 | M5 | M6 |
|---------------|------------|------------|-----------------|-----------|------------|-----------|-----------|-----------|-----------|
| 2 | 87 | F | Recreation | N | 1 | 1 | 1 | 1 | 1 |
| 9 | 62 | F | Recreation | N | 1 | 1 | 1 | 2 | X |
| 3 | 68 | M | Recreation | N | X | 2 | X | X | X |
| 6 | 91 | F | Recreation | N | 2 | 2 | X | X | X |
| 8 | 84 | M | Recreation | N | 2 | 2 | 2 | X | X |
| 4 | 85 | F | Recreation | N | 4 | 3 | 3 | 3 | X |
| 10 | 87 | F | Recreation | N | 3 | 3 | 3 | 3 | 3 |
| 12 | 91 | F | Recreation | N | 3 | 3 | 3 | 3 | X |
| 13 | 92 | F | Recreation | N | 3 | 3 | 3 | 3 | X |
| 14 | 87 | F | Recreation | N | X | 3 | 3 | X | X |
| 1 | 86 | F | Recreation | N | 0 | 4 | X | X | X |
| 5 | 86 | F | Recreation | N | 4 | 4 | X | X | X |
| 7 | 89 | F | Recreation | N | 4 | 4 | 4 | 4 | X |
| 11 | 90 | F | Recreation | N | 4 | 4 | 4 | 4 | X |

Codes: 0 = none
 1 = few
 2 = some
 3 = most
 4 = all

Notes:
 M1 = admission to facility
 M2 = 6 months pre SCU
 M3 = 6 months post SCU
 M4 = 12 months post SCU
 M5 = 18 months post SCU
 M6 = 22 months post SCU
 X = no measurement

Table 19 indicates resident participation in recreational programming. Nine of the SCU residents have remained at the same level of involvement in programs pre and post SCU. It is clear that most of the residents are involved in programming most of the time or all of the time. Client # 2 is rarely involved in programs because she is continually pacing and unable to focus her attention. Client # 9 has improved in her participation in programming post SCU as her attention seeking behavior is better managed. Client # 1 improved dramatically in participation. Prior to placement on the SCU, this resident had deteriorated

mentally such that she was unable to leave the security of her room and nursing station. Since her adjustment to the SCU she has been able to participate in all programming offered. Client # 4 declined slightly only because she is often sleepy in the mornings and falls asleep during program. This data was collected from staff documentation of resident participation.

These results seem to support Peppard's (1985-1986, p. 77) view that "when activity is appropriate for a group and encourages the group to attain its highest level of functioning, the group members should interact more, should have better dispositions, and might maintain their levels of functioning for a longer period of time."

**Table 20 Repeated measures of level of private companion service
Sorted by level of service at time M3**

| Client | Age | Sex | Variable | M1 | M 2 | M3 | M4 | M5 | M6 |
|--------|-----|-----|-----------|----|-----|----|----|----|----|
| 1 | 86 | F | Companion | N | 0 | 0 | X | X | X |
| 2 | 87 | F | Companion | N | 0 | 0 | 0 | 0 | 0 |
| 4 | 85 | F | Companion | N | 0 | 0 | 0 | 2 | X |
| 5 | 86 | F | Companion | N | 0 | 0 | X | X | X |
| 7 | 89 | F | Companion | N | 0 | 0 | 0 | 2 | X |
| 8 | 84 | M | Companion | N | 0 | 0 | 2 | X | X |
| 9 | 62 | F | Companion | N | 0 | 0 | 0 | 0 | X |
| 10 | 87 | F | Companion | N | 0 | 0 | 0 | 4 | 0 |
| 11 | 90 | F | Companion | N | 0 | 0 | 0 | 1 | X |
| 12 | 91 | F | Companion | N | 0 | 0 | 0 | 3 | X |
| 13 | 92 | F | Companion | N | 0 | 0 | 0 | 4 | X |
| 14 | 87 | F | Companion | N | X | 0 | 2 | X | X |
| 6 | 91 | F | Companion | N | 0 | 1 | X | X | X |
| 3 | 68 | M | Companion | N | X | 3 | X | X | X |

Codes: 0 = none

1 = 0 to 7 hours per week

2 = 8 to 12 hrs per week

3 = 6 to 8 hours per day

4 = 12 hours per day

Notes:

M1 = admission to facility

M2 = 6 months pre SCU

M3 = 6 months post SCU

M4 = 12 months post SCU

M5 = 18 months post SCU

M6 = 22 months post SCU

X = no measurement

Table 20 shows the number of hours of private companion service SCU residents have been using. Private companion service is an optional service provided at the resident/family expense. Four of the SCU clients do not have any private companion service, while the remaining eight SCU clients have some private companion service. Two residents have between 1 to 7 hours per week of service. Four clients have 8 to 12 hours per week while two clients have 6 - 8 hours per day and two clients have 12 hours of private companion service per

day. While there is no provision for measurement of the impact of private companion care on the SCU resident's mental, physical or functional status, one could assume that while the resident is in the attendance of a private companion, the incidence of wandering, agitation, aggression, falls, injuries, hospitalizations, altercations should be decreased.

**Table 21 Repeated measures of level of treatment in hospital
Sorted by level of treatment at time M3**

| Client | Age | Sex | Variable | M1 | M 2 | M3 | M4 | M5 | M6 |
|--------|-----|-----|----------|----|-----|----|----|----|----|
| 1 | 86 | F | Hospital | N | 0 | 0 | X | X | X |
| 2 | 87 | F | Hospital | N | 2 | 0 | 1 | 0 | 0 |
| 3 | 68 | M | Hospital | N | X | 0 | X | X | X |
| 4 | 85 | F | Hospital | N | 0 | 0 | 0 | 0 | X |
| 5 | 86 | F | Hospital | N | 0 | 0 | X | X | X |
| 6 | 91 | F | Hospital | N | 0 | 0 | X | X | X |
| 7 | 89 | F | Hospital | N | 0 | 0 | 0 | 0 | X |
| 8 | 84 | M | Hospital | N | 0 | 0 | 0 | X | X |
| 10 | 87 | F | Hospital | N | 0 | 0 | 0 | 0 | 1 |
| 11 | 90 | F | Hospital | 0 | 0 | 0 | 0 | 0 | X |
| 12 | 91 | F | Hospital | N | 0 | 0 | 0 | 0 | X |
| 13 | 92 | F | Hospital | 0 | 0 | 0 | 0 | 0 | X |
| 14 | 87 | F | Hospital | 0 | 0 | 0 | 0 | X | X |
| 9 | 62 | F | Hospital | N | 0 | 1 | 0 | 0 | X |

Notes:

M1 = admission to facility

M2 = 6 months pre SCU

M3 = 6 months post SCU

M4 = 12 months post SCU

M5 = 18 months post SCU

M6 = 22 months post SCU

Table 21 is the number of times each resident was transferred to hospital, either in or outpatient, for treatment. Only three residents have required hospital treatment. Client # 2 required two hospital treatments prior to SCU and one

treatment post SCU, a decrease in hospitalization post SCU, while the other two clients were hospitalized post SCU (an increase in hospitalizations). Transfers to hospital were for stitches in two cases, repair of fractured hip in one case and in the third case, behavior modification.

Mathew et al. (1988) found that there were no hospitalizations among 13 SCU residents they observed for 4 months while Coleman et al. (1990) did find a trend for increased hospitalization for SCU patients.

Chapter 5

Discussion

In response to Research Question # 1, has the SCU been effective in improving resident mental, physical and behavioral status, based on the retrospective baseline study results, mental status changes were not able to be determined, while physical status remained the same, weight improved and some of the behavioral status variables also improved.

The flexibility in meal service and the home-like style of meal service have been possible with the introduction of a bulk food delivery system which was implemented in the facility at about the same time that the SCU was opened. The system replaced the hospital-like insulated trays which were portioned in the central kitchen and delivered to the units. The food was often cold by the time it was served. With the bulk food system, the food arrives on the unit in heated carts, in bulk, and is served to the residents as it would in their home. Staff may serve larger or smaller portions and second helpings as each resident prefers.

Because the staff are multi-skilled, all unit staff are involved in the meal service, providing assistance as needed. The SCU kitchen contains a refrigerator, oven and microwave oven which allows the staff and families to reheat food when the resident wants to eat. Baking programs are frequent events. All of these features, as well as the small unit size and relatively calm atmosphere, have

contributed to improving dietary intake.

The two behavioral variables that showed improvement were episodes of sleep disturbance and episodes of wandering/pacing/exit seeking. Of these two results, the most important to Personal Care Home staff, administrators and family members is the prevention of residents wandering out of the building, getting lost, being seriously injured or dying. There were no incidents of SCU residents wandering out of the building. Improvement in episodes of sleep disturbance was a positive finding however this may have been due to increase in psychotropic medication prescription.

The behavioral variables that worsened post SCU include incidence of injuries, incidence of altercations with other residents, hospitalizations and psychotropic medication usage. Incidence of injuries and altercations with other residents would be expected on a unit which tries to foster independent functioning. The incidence of these two variables is also high because most of the residents on the SCU have been placed there because they are agitated and have difficulty coping with environmental demands. Traditional units would have fewer incidents because the AD residents are not concentrated in one area and many of the residents are wheelchair bound and unable to physically invade another resident's personal space. The increase in psychotropic medications is indicative of the efforts of the nursing/medical/psychiatric team to improve the comfort level of those residents who experience persistent, daily agitation, aggression, sleeplessness and pacing behavior. However, the increased

use of these medications may also attribute to the decrease in sleep disturbance and the decrease in wandering/exit seeking/pacing behavior and the decrease in agitated behavior experienced by half of the SCU residents.

Restraint use remained the same as did aggressive behavior, number of falls, participation in recreation programming and physical status. The use of restraints appears to be indicative of the high level of care of those residents who require restraint rather than failure to adhere to the SCU philosophy of restraint free.

Admission criteria to the unit requires that residents be independent in ambulation, however, restraint is being used for residents who are requiring one to two staff persons to assist them with ambulation and as a result require the restraint when unsupervised.). The maintenance of physical status is a very positive outcome of the study which would indicate that the staff and companion efforts to maintain the residents remaining independence in self care and ambulation has been effective.

Although the number of falls appears to be high, the rate of falls has not increased since admission to SCU. The residents on the unit are ambulatory, often agitated, sometimes aggressive, often pacing continually and many of them experienced these behaviors prior to placement on the unit. A high fall rate may be indicative of the unit's philosophy of least restraint but it may also be worthwhile to try to determine when the falls are happening. Falls in the evening and night may be related to the decrease in staffing at these times and the inability to provide the continual supervision that would be required to prevent falls. Of

interest are those residents who had as many as 14 falls in a six month period. Despite this seemingly alarming number, there have been few serious injuries (one fractured arm and one fractured hip).

Private companion service is widely used throughout the facility. On the SCU, ten residents have some amount of private companion service. There is no doubt that this service has helped maintain the resident's status and is therefore worthy of note in the evaluation of the unit.

Over all results are inconclusive as to the effectiveness of the SCU. One finding, however, is conclusive and that is the improvement in resident weight. Physical status remained stable, however, a number of the residents were at their maximum dependency level and therefore could not get worse. Some of the behavioral variables showed improvement, however, this may have been due to the increase in psychotropic medication usage.

Research Question # 2

Do family members of the SCU residents perceive the unit to be effective in improving or maintaining the resident's behavioral, functional and mental status?

Family members perceptions of the Special Care Unit were favorable and several themes emerged from their comments and responses to the open ended questions.

The most prominent theme was the importance placed by family members on

the issues relating to the staffing of the unit. Families felt that the multi-skilling of the staff, the staff training in working with residents with dementia and most of all, the staff to resident ratio were of primary importance to the unit. The provision for safe wandering, the flexibility in the food service, the relationship with the professional nursing staff and the support staff were also highly rated. Families perceived that their relative's weight had increased, as the retrospective study confirmed, and disagreed that cognitive status had been maintained. Families also disagreed that wandering behavior had decreased however the retrospective study did show a decrease.

Families also felt that there should be more recreation programming and that programming may not be appropriate for the SCU residents due to their advanced stages of the disease process. Other SCU features such as the memory boards were also thought to be beyond the comprehension of the SCU residents. Some improvements to the physical design were recommended including the lack of access to outdoors.

Family members were especially pleased with the music therapy however several families felt that programs were not reaching the SCU residents and were too few. The challenge is in providing programming for residents who are continually pacing and agitated.

Table 22 illustrates the variables that have improved, remained the same and worsened post SCU:

Table 22

Change Status of Retrospective Baseline Study Variables

| Improved | Remained the Same | Worsened |
|-------------------------|---------------------------|------------------|
| weight | physical status | injuries |
| sleep disturbance | number of falls | medication use |
| wandering/exit seeking/ | participation in programs | altercations |
| pacing behavior | restraint use | hospitalizations |
| | aggressive behavior | |

note: * equal numbers of residents increased in agitation as decreased*

Mace (1987) and Rabins (1986) identified the advantages and disadvantages of SCUs. The “pros” include specially designed environments, trained and recruited staff, concentrated resources, alleviation of families’ anxiety and separation of the cognitively impaired residents from the mentally intact. “Cons” include higher financial costs, difficulty in determining admission criteria, resistance to placement by residents or families due to a variety of concerns, difficulty in recruitment of staff, negative effect of labeling the unit, higher staff turnover rates and lowered expectations. Based on the Sharon Home evaluation of the SCU, the

following pros and cons of the Special Care Unit have been identified:

“Pros”:

- **improvement in resident weight**
- **maintenance of physical status**
- **favorable family perception of the value of the unit**
- **elimination of risk of wandering out of the building**
- **trained and recruited multi-skilled staff**
- **improved medical/psychiatric management of symptoms of dementia**

“Cons”:

- **increased program cost due to renovations and higher staffing level**
- **difficulty in determining admission criteria**
- **difficulty for families in accepting the need to discharge off the unit when the resident no longer meets the criteria for the unit**
- **high number of falls, injuries and altercations with other residents**
- **lack of access to outdoors**

Chapter 6

Implications

Implications for Sharon Home

Based on the information provided by family members and the data gathered in the retrospective baseline study, further consideration should be given to the following areas:

- Family members considered staff skills, staff ratio and multi-skilling of staff to be of primary importance to the effectiveness of the SCU. Emphasis should continue to be placed on recruitment of staff, ongoing training of staff in working with residents with dementia, supervision and evaluation of staff. Consideration may also be given to further evaluation of the multi-skilled worker concept on the SCU with the goal of expanding this model to the traditional units in the facility.
- The overall level of care of the residents on the SCU was high, level 3y and 4y. Reevaluation of the discharge criteria from the unit may be justified given that the philosophy of the unit is to help the residents maintain their independence in self care. Residents at level 3y and 4y implies that these residents are at a maximum level dependence on staff for care. Mental status scores were also indicating the prevalence of more advanced stages of dementia

which begs the question of the ability of the resident to benefit from the specialized SCU program. The care team may wish to revisit the admission and discharge criteria in order to ensure that the unit is serving the most appropriate residents.

- The staff to resident ratio was an issue for family members who felt the unit was short staffed despite being better staffed than the traditional units within the facility. Funding for staffing falls within the responsibility of Manitoba Health, the efforts of the facility's administration to lobby the Government for increased staffing is noted.

- The number of falls and injuries appear to be high and a comparison with other units in the Home as well as other SCUs would be warranted. An analysis of the time of day that most of the falls occur would be of interest.

An increased fall rate in the evening and night may be due to the decrease in staffing on those shifts and therefore the decrease in supervision. However, an increase in number of falls and injuries is in keeping with a unit whose philosophy is to allow the resident as much freedom and independence as possible. Altercations with other residents may also be inevitable given the nature of the disease and the frequency of agitated behavior.

- While it was not the intention of this report to evaluate staff performance, family members did note that they felt the SCU nurse was very good, responsive to family members, and attentive to the resident's medical and psychiatric needs. While medication prescription has increased, this was a

reflection of the concerted effort made to improve resident comfort, relieve persistent agitation and provide some degree of quality of life to those who suffer greatly from the symptoms of dementia. The Health Care Aides and Recreation worker also received very positive comments. Consistency in staffing was also noted by family members as a key component in the provision of good care. This is strong basis from which to continue to provide quality care to the SCU residents.

- Family members appreciated the private rooms and decor of the unit but question the residents' appreciation of these physical features. A small sized unit with ample space to wander, a private visiting room and immediate access to outdoors are desirable features. Way finding features such as memory boards have not been helpful but perhaps the use of color to differentiate resident rooms would be more effective. Furniture should be appropriate for all heights of residents and waterproofed and more efforts to improve the home like atmosphere could be implemented such as carpeting instead of vinyl flooring.
- Families are concerned that recreation programming could be enhanced. It may be that families are not aware of the programming that is provided or can more programming indeed be incorporated into the care plan? Music therapy, however, was seen to be a very beneficial program and should continue to be provided. Further evaluation of recreation programming would be helpful to determine if the needs of the residents are being met.
- Flexible food delivery, small unit size and home like atmosphere appear to

enhance dietary intake. Future renovations to the traditional units in the facility to incorporate small sized dining rooms on each unit rather than the one large dining room on the main floor would be consistent with the impressive results achieved on the SCU.

Implications for SCU research

While the results of the study offer some encouragement that SCUs can impact residents in some positive ways, the interpretation of the results are limited by the small sample size ($n = 14$) and by the use of the retrospective design which relied on medical records as the primary source of data.

Future SCU research should focus on small studies within one facility identifying the effects of one element of the SCU on the experiences of subgroups of subjects. This study found that the features pertaining to staffing are the most important features of the Unit as perceived by family members. A number of research questions present themselves based on these findings:

- What are the most salient skills required of SCU staff and how can staff training be improved to meet resident needs?
- At what staff to resident ratio can quality SCU care be provided?
- Is multi-skilling of staff an effective model for provision of care? Is multi-skilling effective from the perception of the multi-skilled worker?
- Which skills can be multi-skilled effectively?

- Can SCUs be cost effective?

SCU research should focus on defining admission criteria:

- At what level of cognitive impairment, physical disability and severity of behavior does the unit have the most benefit? At what level do environmental conditions cease to impact on resident quality of life?

Future SCU research should also focus on SCU design features. If memory boards are not effective, what features can help residents identify their rooms and stimulate memory? In the area of recreational programming, how can programming be improved and increased within the staffing limits? Many areas for further research are apparent.

While the Sharon Home SCU evaluation showed that the Unit can have an impact on improving some aspects of resident function and behavior, the study should act as an impetus for further research and evaluation. As the population ages and the incidence of Alzheimer's Disease increases, care providers must continue to meet the challenge in providing quality care to the elderly.

References

- Barlow, D.H., Hayes, S.C. and Nelson, R.O. (1984). The Scientific Practitioner: Research and Accountability in Clinical and Educational Settings. New York: Pergamon Press.
- Benson, D., Cameron, D., Humbach, E., Servino, L. and Gambert, S. Establishment and Impact of a Dementia Unit Within the Nursing Home. The American Geriatrics Society. 1987; (35):3199-323.
- Berg, L. Buckwalter, K.C., Chafetz, P.K. Gwyther, L.P. Holmes, D., Koepke, K.M., Lawton, M.P., Lindeman, D.A., Magaziner, J., Maslow, K., Ory, M.G., Rabins, P.V. Radebaugh, R.S., Sloane, P.D. Teresi, J., and Morley, J.E. Special Care Units for Persons with Dementia. Journal of the American Geriatrics Society. 1991;(39):1229-1236.
- Bond, J. The Medicalization of Dementia. Journal of Aging Studies, 1992; 6(4): 397-403.
- Buckwalter, K.C. Psychosocial Needs and Care of the Elderly. In McFarland, G., Thomas, M.D. (eds): Psychiatric Mental Health: Application of the Nursing Process. Philadelphia J.B.Lippincott, 1990:625-641
- Canadian Study of Health and Aging Working Group. (1994). Canadian Study of Health and Aging: Study methods and prevalence of dementia. Canadian Medical Association Journal, 150(6), 899-913
- Campbell, Donald., Stanley, Julian C. Experimental and Quasi-Experimental Designs for Research. Chicago, Rand McNally and Company, 1963.

- Chafetz, P.K., West, H.C. Longitudinal control group evaluation of a special care unit for dementia patients: Initial findings. Gerontologist 40th Annual Scientific Needing Program 1987; 27:278A.
- Cohen, U and Day, K. Emerging Trends in Environment for People with Dementia. The American Journal of Alzheimer's Care and Related Disorders Research. 1994; Jan/Feb:3-11.
- Coleman, E., Barbaccia, J., Croughan-Minihane, M. Hospitalization Rate in Nursing Home Residents with Dementia. The American Geriatrics Society. 1990; (38):108-112.
- Coons, D.H. Specialized Dementia Care Units. Baltimore, The Johns Hopkins University Press, 1991
- Coons, D.H. The Therapeutic Milieu. In Reichel W (ed): Clinical Aspects of Aging Baltimore, Williams and Wilkins,1983, 137-159.
- Coulson, Irene. The Impact of the Total Environment in the Care and Management of Dementia. The American Journal of Alzheimer's Care and Related Disorders Research. 1993; May/June:18-25.
- Danford, S. Therapeutic Design for Aging. In Horton A.M. (ed): Mental Health Interventions for Aging. South Hadley, MS, JF Bergin Publishers, 1982, 163-169.
- Donat, D.C. Altercations among institutionalized psychogeriatric patients. Gerontologist. 1986; 26:227-228.
- Dupuis, M., Dobbelsteyn, J., Ericson, P. Special Care Units for Residents with Alzheimer's. Canadian Nursing Home.1996; 7(3):4-9.

- Folstein, M.F., Folstein, S.E., McHugh, P.R. Mini Mental State: A Practical Method for Grading the Cognitive Status of Patients for Clinicians. Journal of Psychiatric Residents. 1975;(12):189-198.
- Gingerich, Wallace. Rethinking Single-Case Evaluation. In Videka-Sherman, L and Reid, W.J.(ed): Advances in Clinical Social Work Research. Silver Springs, MD., National Association of Social Workers Press, 1990, 11-24.
- Gottschalk, L.A. Content Analysis of Verbal Behavior: New Findings and Clinical Applications. New Jersey: Lawrence Erlbaum, 1995.
- Grant, L., Kane, R., Potthoff, J., and Ryden, M. Staff Training and Turnover in Alzheimer Special Care Units: Comparison with Non-Special Care Units. Geriatric Nursing. 1996; Nov/Dec: 278-282.
- Green, G.R. and Wright, J.E. The Retrospective Approach to Collecting Baseline Data. Social Work Research and Abstracts, 15, 25-30.
- Green, J.A. et al. Specialized management of the Alzheimer's disease patient: does it make a difference? A preliminary progress report. Journal of Tennessee Medical Association 1985;78:559-563.
- Hall, G., Buckwalter, K. Progressively Lowered Stress Threshold: A conceptual Model for Care of Adults with Alzheimer's Disease. Archives of Psychiatric Nursing. 1987; (1): 309-312.
- Hall, G., Buckwalter, K. From Almshouse to Dedicated: Care for the Institutionalized Elderly with Behavioral Problems. Archives of Psychiatric Nursing 1990; 4(3) 11.
- Hall, G.R., Kirschchling, M.V., Toss, S. Sheltered Freedom: An Alzheimer's Unit in

an ICF. Geriatric Nursing 1986; (7) 132-137.

Hartmaier, S.C. Validation of the Minimum Data Set as a Measure of Cognitive

Impairment. Doctoral Dissertation. University of North Carolina at Chapel Hill, 1993.

Haycox, James. A. A Simple, Reliable Clinical Behavioral Scale for Assessing Demented Patients. Journal of Clinical Psychiatry 1984, 45:1, 23-24.

Holmes, D., Teresi, J., Weiner, A., Monaco, D. Ronch, J. and Vickers, R. Impacts

Associated with Special Care Units in Long Term Care Facilities. The Gerontologist 1990;(30):178-183.

Johnson, C.J. Sociological Intervention through Developing Low Stimulus Alzheimer's

Wings in Nursing Homes. The American Journal of Alzheimer's Care and Related Disorders Research, 989;(4)33-41.

Kane, R. Considerations before Developing a Special Care Unit for Alzheimer's

Patients. Beyond Folklore III: Standards of Care in Managing Alzheimer's patients.

Symposium conducted by the University of Minnesota and the Veterans Administration, Minneapolis, MN, 1987

Katzman, R. Alzheimer's Disease. The New England Journal of Medicine 1986; 314(15): 964-973.

Kazdin, Alan E. Drawing Valid Inferences From Case Studies. Journal of Consulting

and Clinical Psychology, 1981; vol 49 (2), 183-192.

Kiesler, D.J. Experimental Designs in Psychotherapy Research. In (ed) Bergin, A.E.

and Garfield, S.L. Handbook of Psychotherapy and Behavior Change: An Empirical Analysis. New York. Wiley, 1971. 36-74.

Kleinbaum, D. Kupper, L. and Morgenstern, H. Epidemiologic Research: Principles and Qualitative Methods. New York: Van Nostrand Reinhold, 1982.

Kovach, C. and Henschel, H. Behavior and participation During Therapeutic Activities on Special Care Units. Activities, Adaptation and Aging. 1996;20(4):35-45.

Kovach, C. and Stearns, S. DSCUs A Study of Behavior Before and After Residence. Journal of Gerontological Nursing. 1994; Dec. 33-39.

Krippendorff, K. Content Analysis: An Introduction to Its Methodology. Beverly Hills, California: Sage Publications Inc., 1980.

Kujawinsky, J., Bigelow, P., Diedrich, D., Kikkebusch, P., Korpan, P., Walczak, J., Maxson, E., Ropski, S., and Farran, C. Research Considerations - Geropsychiatry Unit Evaluation. Journal of Gerontological Nursing. 1993; January:5-10.

Lawton, M. "Assessing Competence of Older People", in Kent, D. Kastenbaum, P., Sherwood, S. (eds): Research Planning and Action for the Elderly. New York Behavioral Publications, 1972, 145-190

Lawton, M. The Lifespan of Housing Environments for the Aging. Gerontologist 1980; (20):56-64.

Lazarus, A.A and Davison, G.C. Clinical Innovation in Research and Practice. In (ed) Bergin, A. and Garfield, S. Psychotherapy and Behavior Change. New York. John Wiley and Sons, 1971. 196-213.

Leon, J. Potter, D., Cunningham, P. Current and Projected Availability of Special Nursing Home Programs for Alzheimer's Disease Patients. Rockville, Maryland: Public Health Service, (DHHS Publication NO. (PHS)90-3463, 1990.

Leventhal, H., Nerenz, D.R., Leventhal, E.A., Love, R.R., and Bendena, L.M. The

- Behavioral Dynamics of Clinical Trials. Preventive Medicine. 1991; (20): 132-146.
- Lindesay, J. Briggs, K., Lawes, M, Macdonald, A. and Herzberg, J. The Domus
Philosophy: A Comparative Evaluation of a New Approach to Residential Care
for the Demented Elderly. International Journal of Geriatric Psychiatry. 1991;
(6): 727-736.
- Linsk, N, Miller, B., Pflaum, R. et al. Families, Alzheimer's Disease and Nursing
Homes. The Journal of Applied Gerontology, 1988; (7):331-349.
- Lyman, K.A. Bringing the Social Back in: A Critique of the Biomedicalization of
Dementia. The Gerontologist, 1989; (29):597-605.
- MSHA Research Group. (1995). Manitoba Study on Health and Aging - Final Report
(Technical Section)(Tables CL4A and CL7). Winnipeg, MB: Centre on Aging,
University of Manitoba.
- Maas, M.L., Buckwalter, K.C., Swanson, E. et al. The Caring Partnership: Staff and
Families of Persons Institutionalized with Alzheimer's Disease (unpublished
manuscript). 1993
- Maas, M.L., Buckwalter, K.C., Swanson, E., Specht, J. Alzheimer's Special Care Units.
Nursing Clinics of North America 1994; 29(1):173-195.
- Manitoba Health. (1994). Annual Statistics 1993-94. Winnipeg, MB: Manitoba Health.
- Martichuski, D., Bell, P., Bradshaw, B. Including Small Group Activities in Large
Special Care Units. The Journal of Applied Gerontology. 1996; 15(2):224-237.
- Mathew, L., Sloan, P., Kilby, M., Flood, R. What's Different About a Special Care
Unit for Dementia Patients? A Comparative Study. The American Journal of

Alzheimer's Care and Related Disorders and Research. 1988; March/April:16-23.

Mathew, L., Sloane, P and Desai, J."The Background, Objectives and Methods of the Study." In: P.D. Sloane and L.J. Mathew (Eds.), Dementia Units in Long Term Care. Baltimore: Johns Hopkins University Press.1991

McConnell, Stephen. Policy Issues Surrounding Special Care Units. Caring Magazine. 1994; Aug:30-33.

McCracken, Ann. Special Care Units - Meeting the Needs of Cognitively Impaired Persons. Journal of Gerontological Nursing 1994; 20(4):41-46.

McCracken, A. and Fitzwater, E. The Right Environment for Alzheimer's. Geriatric Nursing. 1989; Nov/Dec: 293-294.

McCracken, A. and Gilster, S. Desires and Perceptions of Staff Concerning Work Performance in a Dedicated Alzheimer's Facility. The American Journal of Alzheimer's Care and Related Disorders. 1992; July/Aug:16-22.

McEwan, K., Donnelly, M., Robertson, D. Mental Health Disorders Among Canada's Elderly: Demographic and Epidemiologic Considerations- Mental Health Services B.C. Ministry of Health 1989.

Mistretta, E. and Kee, C. Caring for Alzheimer's Residents in Dedicated Units. Journal of Gerontological Nursing. 1997; Feb:41-46.

Moore, J., Bobula, J., Short, T. and Mischel, M. A Functional Dementia Scale. The Journal of Family Practice,1983, vol. 16, no. 3: 499-503.

Padgett, Deborah. Qualitative Methods In Social Work Research. Thousand Oaks: Sage Publications Inc., 1998.

- Pecora, P., Fraser, M. Nelson, K., McCroskey, J., Meezan, W. Evaluating Family Based Services. New York, Aldine de Gruyter, 1995.
- Peppard, N.R. Special Needs Dementia Units: Design, Development, and Operation. New York, Springer, 1991.
- Sackett, D.L. Bias in Analytic Research. Journal of Chronic Disease. 1979;(32):51-63.
- Sand, B.J., Yeaworth, R.C., and McCabe, B.W. Alzheimer's Disease Special Care Units in Long Term Care Facilities. Journal of Gerontological Nursing. 1992;(18):28-34.
- Shapiro, E., Tate, R.B. Predictors of Long Term Care Facility Use Among the Elderly. Canadian Journal of Aging 1985; 4(1): 11-19.
- Shapiro, E. Tate, R.B. The Impact of a Mental Status Score and a Dementia Diagnosis on Mortality and Institutionalization. Journal of Health and Aging 1991; 3(1): 28-46.
- Sloane, P.D., Lindeman, D.A.,Phillips, C., Moritz, D. and Koch, G. Evaluating Alzheimer's Special Care Units: Reviewing the Evidence and Identifying Potential Sources of Study Bias. The Gerontologist. 1995;35(1):103-111.
- Sudbury, F. and Mayhew, P. Improving Dementia Care Through Teamwork. Canadian Nursing Home. 1994; 5(4):4-7.
- Thomas, D. A Case Study on the Effects of a Retrofitted Dementia Special Care Unit on Resident Behaviors. American Journal of Alzheimer's Disease. 1996; May/June: 8-14.
- Thomlison, R., Sieppert, J., Grinnel, R. Single-System Designs in Program Evaluations. In Hudson, J., Mayne, J. Thomlison, R. (eds.), Action Oriented Evaluation in

Organizations: Canadian practices. Toronto: Wall and Emerson, 1992

Tindale, J., Ancill, R.J. A Geriatric Psychiatry Nurse Rating Scale: Preliminary Findings. Gerontion. 1987;2(1):11-13.

Volicer, L., Collard, A., Hurley, A., Bishop, C. Kern, D., and Karon, S. Impact of Special Care Unit for Patients with Advanced Alzheimer's Disease on Patients' Discomfort and Costs. The American Geriatrics Society. 1994; (42)aaaa;597-603.

Weber, R.P. Basic Content Analysis, 2nd edition. Beverly Hills, California: Sage Publications Inc., 1990.

Weiner, A.S. and Reingold, J. Special Care Units for Dementia: Current Practice Models. Journal of Long Term Care Administration. 1989; Spring: 14-23.

Wilden, B. and Froese, K. Admission Criteria for a Special Care Unit for Residents with Dementia. Canadian Journal of Nursing Administration. 1991; Sept./Oct.:17-23.

Appendix A

Consent

To participate in the Evaluation of the Sharon Home Special Care Unit

Dear family member:

Most of you know me in my role of Manager of Social Services at the Sharon Home. Over the past three years I have been studying to obtain my Masters Degree in Social Work. In fulfillment of the requirements of the Masters Degree program, I will be doing an evaluation of the effectiveness of the Sharon Home Special Care Unit. This letter is to inform you about the evaluation and to ask for your consent to allow your relative to participate in the evaluation.

The evaluation has two components. The first component involves trying to determine if the unit has had an impact on the resident in terms of their mental status, their physical status and their behavioral status. This will involve searching through each resident's chart from the time just prior to admission to the unit up until the present time, retrieving information and comparing it. In order to determine if there has been a change in the mental status of the resident, I will be conducting the Folstein Mini Mental Status Exam with each resident. This is a short, simple test of the resident's orientation, attention, calculation, recall and language skills and is currently being used in the Sharon Home by our Occupational Therapist for assessment purposes.

The second component of the evaluation is the Family Perception Survey. For those family members living in Winnipeg, I will be contacting you to arrange an interview with you at your convenience. For those family members not living in Winnipeg, you will receive the survey in the mail. The survey is designed to elicit your perceptions of the impact of the Special Care Unit on your relative living on the unit.

The purpose of the evaluation is to generate information that will be useful to the Home in improving the care and service it provides to the residents. There is no risk to your relative as a result of participating in the evaluation and no immediate benefit. The benefit of the evaluation is in the advancement of knowledge about the care of Alzheimer's disease victims.

The anticipated start date for the evaluation is March 1 with completion expected by June 1, 1999. You will receive a summary of the evaluation results by mail by the end of June. While it is common knowledge throughout the facility which residents reside in the

Special Care Unit, survey responses will remain anonymous and family and resident's identities will be kept confidential. The findings of the evaluation will be shared with Administration, staff, family members and residents of the Home. It may also be shared with other organizations who may be planning to open their own Special Care Unit or other individuals doing research on Special Care Units or dementia. Again, the residents and families participating in the evaluation will not be named, thereby protecting their anonymity.

Should you choose not to participate in the evaluation, you may do so without penalty. Participation in the evaluation is strictly voluntary. Your participation or non participation will have no influence on and will not jeopardize the professional relationship that I maintain with you and your relative as the Sharon Home Social Worker. Neither will your participation or non participation have any bearing on the quality of care and service your relative receives at the Sharon Home.

Prior to commencing my evaluation, your consent, as the legal representative of your parent/relative, to participate in the evaluation is required. Please complete the following consent form and return to me in the envelope provided or drop it off at my office at your earliest convenience.

If you have any further questions or concerns, please do not hesitate to call me at work at 204-586-9781 or at home at 204-254-5607.

Sincerely,

Susan Ross B.S.W.

Consent

I, _____, consent to the involvement of
substitute decision maker

_____ in the Sharon Home Special Care Unit evaluation.
Resident

My relationship to _____ is _____.
Resident e.g. son, daughter.

Date

Signature

APPLICATION/ASSESSMENT FOR LONG TERM CARE
DEPENDENCY ASSESSMENT SUPPLEMENT



APPLICANT'S NAME

| | |
|-----------|---------------|
| (Surname) | (Given names) |
|-----------|---------------|

MH Registration No.

(check and underline appropriate descriptors and circle level of dependency in each category)

I: BATHING & DRESSING**X: Independent**

- Requires no assistance/supervision

A: Minimum Dependence

- Requires minimal assistance with dressing e.g. buttons, zippers
- Requires change of clothing to be laid out, soiled ones removed
- Requires assistance in and out of tub

B: Partial Dependence

- Requires partial assistance and/or supervision on a daily basis
- Requires intermittent supervision, assistance and/or coaching with personal care e.g. peri-care in a.m. and h.s.
- Requires assistance with more than one item of clothing on a daily basis

C: Maximum Dependence

- Completely dependent
- Requires constant coaching, supervision or assistance with personal care and dressing on a daily basis
- Requires more than one person for assistance with bathing and some personal care
- Requires daily re-dressing because of inappropriate dressing

D: CHRONIC CARE INDICATOR: Maximum dependency above and consistently requires three or more persons to carry out daily tasks related to bathing and dressing.

II: ASSISTANCE WITH MEALS (FEEDING)**X: Independent**

- Requires no assistance once food is served and uncovered

A: Minimum Dependence

- Can feed self once meat is cut, bread buttered, beverage poured
- Requires encouragement to stay at table

B: Partial Dependence

- Requires partial assistance with eating and/or some encouragement to consume food
- Food must be served one item at a time
- Requires intermittent attention throughout meal

C: Maximum Dependence

- Requires complete assistance with eating
- Requires continual coaching or supervision because of confusion, dysphagia or other condition

D: CHRONIC CARE INDICATOR: Maximum dependency above and requires professional expertise to carry out feeding procedure e.g. syringe, nasogastric tube, gastrostomy, parenteral – I.V. or hypodermoclysis.

DEPENDENCY ASSESSMENT — SUPPLEMENT

III: AMBULATION/MOBILITY/TRANSFERS

X: Independent

- Requires no assistive devices

A: Minimum Dependence

- Independently mobile with aid e.g. wheelchair, walker, cane
- Ambulates independently within own room or for short distances

B: Partial Dependence

- Requires assistance of one person to get in/out of bed and/or on/off toilet but is otherwise purposely mobile with wheelchair or other aid.
- Requires assistance with walking or wheelchair movement but can transfer independently

C: Maximum Dependence

- Requires mechanical lift for all transfers
- Confined to bed or chair and requires positioning every two hours (includes skin care at this time)
- Requires assistance for all transferring, transporting and walking
- Uses electric wheelchair and otherwise requires assistance for all mobility
- Propels wheelchair without purposeful direction

D: CHRONIC CARE INDICATOR: Maximum dependency above and consistently requires two or more persons to carry out all tasks related to ambulation, positioning and transferring. Intense intervention required totalling 2 hours or more over a 24 hour period.

IV: ELIMINATION

X: Independent

- Independent in toileting including management of occasional incontinence, ostomy or catheter

A: Minimal Dependence

- Requires reminding to go to bathroom
- Requires assistance for incontinence/dribbling less than daily but more than once a week

B: Partial Dependence

Requires one or more of the following:

- Condom application at h.s.
- Assistance with urinal/bedpan at night
- Change once or twice in 24 hours for incontinence

C: Maximum Dependence

Requires one or more of the following:

- Toileting routine every two hours
- Change more than four times in 24 hours
- Bowel routine/disimpaction, minimum of every 2 days
- Ostomy care (simple)
- Catheter care (simple)
- Peri-care more than a.m. and h.s.

D: CHRONIC CARE INDICATOR: Maximum dependency above and professional nurse is required to carry out related procedures: e.g. intermittent catheterizations, continuous bladder irrigations, specialized ostomy care.

DEPENDENCY ASSESSMENT – SUPPLEMENT

APPLICANT'S NAME:

(Surname)

(Given Name)

MH Registration No.

V: PROFESSIONAL INTERVENTION (Treatment/Medication)

Interventions must be based on written orders. Some may be performed by nonprofessional caregivers under professional direction or supervision but in the institutional setting, unless otherwise specified, these tasks are carried out by a professional.

Examples: medication distribution and recording, vital signs, special skin care, application of ointments, instillation of eye drops, suctioning, oxygen therapy, range of motion exercises, walking as an exercise, behaviour modification interventions or retraining.

X: Independent

- May be on a self-administered medication program

A: Minimal Dependence

- Requires intervention every four hours or less i.e. up to six interventions in a 24 hour period

B: Partial Dependence

- Requires intervention more often than every four hours but less often than hourly i.e. every two to three hours or more than six interventions in 24 hours

C: Maximum Dependence

- Requires intervention constantly to hourly
- May require terminal care
- May require oxygen which can be delivered by a concentrator

D: CHRONIC CARE INDICATOR: Professional intervention is also required for one or more of the following procedures/treatments:

- suctioning more than once daily
- tracheotomy care on a daily basis
- medications by I.V or infusion pump
- complicated skin or ulcer care
- dialysis
- respiratory/treatments in addition to continuous oxygen (at least 18 hr/day)
- Frequent lab testing and treatment due to a severe chronic medical condition e.g. blood gases or blood sugars one or more times a day; anticoagulant monitoring
- Access to medical supervision and treatment for advanced progressive disease or multiple pathologies e.g. ALS, seizure disorder, MS, brittle diabetic, severe respiratory disease
- other (specify)

DEPENDENCY ASSESSMENT — SUPPLEMENT

VI: BEHAVIOUR MANAGEMENT/SUPPORT SUPERVISION

These interventions are in addition to those required to meet physical care needs and are usually in response to frequent or continual behaviours. There must be documentation describing the behaviour, the intervention that is required and the frequency required.

Examples: counselling of individual and/or family, listening to individual and/or family, redirection of behaviour, personal guidance and orientation

X: Independent

A: Minimum Support/Supervision

- Can be supported with brief instruction or informational conversation. Family is not demanding of time.
Examples: providing information about time and location, reminders about meals, routines

B: Partial Support/Supervision

Requires one or more of the following interventions as a result of depression, lack of motivation, confusion or anxiety:

- Requires coaxing to get up and to leave room
- Requires to be pointed in right direction for any movement within the unit
- Requires intervention for a specific routine e.g. smoking
- Family places demands on staff time on a daily basis
- Requires pass-by supervision throughout day to ensure safety
- Requires frequent reassurance e.g. related to anxiety

C: Maximum Support/Supervision

Requires a high degree of staff supervision or guidance for disorientation and confusion or uncontrolled behaviours*. One or more of the following may apply:

- Behaviour is disruptive
- Behaviour affects safety of self or others
- Would wander out of building
- Lack of ability to deal with people or routine living situations and requires constant guidance for any activity
- Requires supervision for restraints (Documentation must indicate reason, specific time intervals, specific intervention)

D: CHRONIC CARE INDICATOR: Partial or maximum dependency above and professional intervention is required in one or more of the following situations:

- Receives at least 30 minutes of therapy per day e.g. sensory stimulation due to comatose or semicomatose condition
- Direct interventions to manage behaviour totalling more than two hours per 24 hour day
- Professional supervision for dangerous or erratic behaviour
- Requires psychiatric intervention

* Indicate if Behaviour Assessment Supplement has been completed

Yes
No

If yes, date completed

Dependency Level:

The number of categories assessed at each of the three levels are totalled i.e. number of A's, B's C's and D's. (Disregard any X's when adding). The dependency level is arrived at using the following criteria:

- At least one A and no B's C's or D'sLevel 1
 - Four or more C'sLevel 4
 - Two or three C's and the rest A's and B's, or one C under "Support or Supervision" and at least two B'sLevel 3
 - Any other combination of A, B and CLevel 2
- If one or more D's, check Chronic Care.

Enter Total Number Circled

A _____ B _____ C _____ D _____

Personal Care Level _____
or (Enter dependency level, if applicable)

Chronic Care _____
(✓ if applicable)

COMPLETED BY _____ AGENCY _____
(PRINT NAME IN FULL AND POSITION)

DATE _____ SIGNATURE _____

"MINI-MENTAL STATE"

Maximum
Score Score

ORIENTATION

- 5 () What is the (year) (season) (date) (day) (month)?
5 () Where are we: (state) (county) (town) (hospital) (floor).

REGISTRATION

- 3 () Name 3 objects: 1 second to say each. Then ask the patient all 3 after you have said them. Give 1 point for each correct answer. Then repeat them until he learns all 3. Count trials and record.

Trials

ATTENTION AND CALCULATION

- 5 () Serial 7's. 1 point for each correct. Stop after 5 answers. Alternatively spell "world" backwards.

RECALL

- 3 () Ask for the 3 objects repeated above. Give 1 point for each correct.

LANGUAGE

- 9 () Name a pencil, and watch (2 points)
Repeat the following "No ifs, ands or buts." (1 point)
Follow a 3-stage command:

"Take a paper in your right hand, fold it in half, and put it on the floor"
(3 points)

Read and obey the following:

CLOSE YOUR EYES (1 point)

Write a sentence (1 point)

Copy design (1 point)

Total score

ASSESS level of consciousness along a continuum

Alert Drowsy Stupor Coma

**INSTRUCTIONS FOR ADMINISTRATION OF
MINI-MENTAL STATE EXAMINATION****ORIENTATION**

(1) Ask for the date. Then ask specifically for parts omitted, e.g., "Can you also tell me what season it is?" One point for each correct.

(2) Ask in turn "Can you tell me the name of this hospital?" (town, county, etc.). One point for each correct.

REGISTRATION

Ask the patient if you may test his memory. Then say the names of 3 unrelated objects, clearly and slowly, about one second for each. After you have said all 3, ask him to repeat them. This first repetition determines his score (0-3) but keep saying them until he can repeat all 3, up to 6 trials. If he does not eventually learn all 3, recall cannot be meaningfully tested.

ATTENTION AND CALCULATION

Ask the patient to begin with 100 and count backwards by 7. Stop after 5 subtractions (93, 86, 79, 72, 65). Score the total number of correct answers.

If the patient cannot or will not perform this task, ask him to spell the word "world" backwards. The score is the number of letters in correct order. E.g. dlrow = 5, dlrow = 3.

RECALL

Ask the patient if he can recall the 3 words you previously asked him to remember. Score 0-3.

LANGUAGE

Naming: Show the patient a wrist watch and ask him what it is. Repeat for pencil. Score 0-2.

Repetition: Ask the patient to repeat the sentence after you. Allow only one trial. Score 0 or 1.

3-Stage command: Give the patient a piece of plain blank paper and repeat the command. Score 1 point for each part correctly executed.

Reading: On a blank piece of paper print the sentence "Close your eyes", in letters large enough for the patient to see clearly. Ask him to read it and do what it says. Score 1 point only if he actually closes his eyes.

U *Writing:* Give the patient a blank piece of paper and ask him to write a sentence for you. Do not dictate a sentence, it is to be written spontaneously. It must contain a subject and verb and be sensible. Correct grammar and punctuation are not necessary.

Copying: On a clean piece of paper, draw intersecting pentagons, each side about 1 in., and ask him to copy it exactly as it is. All 10 angles must be present and 2 must intersect to score 1 point. Tremor and rotation are ignored.

Estimate the patient's level of sensorium along a continuum, from alert on the left to coma on the right.

Functional Dementia Scale

Patient _____

Circle one rating for each item:

Observer _____

1 None or little of the time

2 Some of the time

3 Good part of the time

4 Most or all of the time

Position or relation to patient _____

Facility _____ Date _____

- 1 2 3 4 [01] Has difficulty in completing simple tasks on own, eg, dressing, bathing, doing arithmetic
- 1 2 3 4 [02] Spends time either sitting or in apparently purposeless activity
- 1 2 3 4 [03] Wanders at night or needs to be restrained to prevent wandering
- 1 2 3 4 [04] Hears things that are not there
- 1 2 3 4 [05] Requires supervision or assistance in eating
- 1 2 3 4 [06] Loses things
- 1 2 3 4 [07] Appearance is disorderly if left to own devices
- 1 2 3 4 [08] Moans
- 1 2 3 4 [09] Cannot control bowel function
- 1 2 3 4 [10] Threatens to harm others
- 1 2 3 4 [11] Cannot control bladder function
- 1 2 3 4 [12] Needs to be watched so doesn't injure self, eg, by careless smoking, leaving the stove on, falling
- 1 2 3 4 [13] Destructive of materials around him, eg, breaks furniture, throws food trays, tears up magazines
- 1 2 3 4 [14] Shouts or yells
- 1 2 3 4 [15] Accuses others of doing him bodily harm or stealing his possessions when you are sure the accusations are not true
- 1 2 3 4 [16] Is unaware of limitations imposed by illness
- 1 2 3 4 [17] Becomes confused and does not know where he/she is
- 1 2 3 4 [18] Has trouble remembering
- 1 2 3 4 [19] Has sudden changes of mood, eg, gets upset, angered, or cries easily
- 1 2 3 4 [20] If left alone, wanders aimlessly during the day or needs to be restrained to prevent wandering

Appendix C

SPECIAL CARE UNIT FAMILY PERCEPTION SURVEY

Please answer each question based on your own feelings and experience. Circle the number that best represents how much you disagree or agree with the statement.

The following questions relate to the physical design of the unit.

1. The design of the unit creates a home like atmosphere.

1 strongly disagree 2 disagree 3 agree 4 strongly agree

2. The design of the unit enhances family visiting.

1 strongly disagree 2 disagree 3 agree 4 strongly agree

3. There is provision for visual, musical, tactile and other sensory stimulation.

1 strongly disagree 2 disagree 3 agree 4 strongly agree

4. The design of the unit provides environmental clues to support the residents memory.

1 strongly disagree 2 disagree 3 agree 4 strongly agree

5. There is provision for safe wandering on the Special Care Unit.

1 strongly disagree 2 disagree 3 agree 4 strongly agree

6. There is access to outdoors when weather permits.

1 strongly disagree 2 disagree 3 agree 4 strongly agree

7. The safety of the resident is maintained without unduly restricting behavior and activity

1 strongly disagree 2 disagree 3 agree 4 strongly agree

8. The unit is designed such that the resident's privacy is respected.

1 strongly disagree 2 disagree 3 agree 4 strongly agree

9. The design provides a pleasant, functional workplace for staff

1 strongly disagree 2 disagree 3 agree 4 strongly agree

The following questions relate to recreational programming

10. The Special Care Unit offers individual and group recreation to promote socialization.

1 strongly disagree 2 disagree 3 agree 4 strongly agree

11. Recreation programming includes the opportunity for physical exercise.

1 strongly disagree 2 disagree 3 agree 4 strongly agree

12. Recreation programming is designed to enhance sensory enjoyment.

1 strongly disagree 2 disagree 3 agree 4 strongly agree

13. Recreation programming relates to my relatives interests, values and heritage.

1 strongly disagree 2 disagree 3 agree 4 strongly agree

14. Recreation programming is designed to build on the resident's strengths.

1 strongly disagree 2 disagree 3 agree 4 strongly agree

15. Recreation programming uses reminiscing as a means of building on the resident's strengths.

1 strongly disagree 2 disagree 3 agree 4 strongly agree

16. Recreation programming is appropriate for the resident's cognitive and functional abilities.

1 strongly disagree 2 disagree 3 agree 4 strongly agree

The following questions relate to food service:

17. The menu provides for the style of meals that are familiar to the resident.

1 strongly disagree 2 disagree 3 agree 4 strongly agree

18. The meals are served in a home like manner.

1 strongly disagree 2 disagree 3 agree 4 strongly agree

19. Enough time is allowed for meal service to be a pleasant, sociable experience.

1 strongly disagree 2 disagree 3 agree 4 strongly agree

The following questions relate to the care provided on the unit:

20.. I feel that care is provided in a consistent manner based on individual needs.

1 strongly disagree 2 disagree 3 agree 4 strongly agree

21. I feel that care is provided in a flexible manner and is responsive to the changes in the resident's condition and behavior.

1 strongly disagree 2 disagree 3 agree 4 strongly agree

22. I feel that care is provided at a time when the resident can accept it or is most able to perform his/her own self care.

1 strongly disagree 2 disagree 3 agree 4 strongly agree

23. I feel that the staff use appropriate skills to manage conflict that occurs between resident.

1 strongly disagree 2 disagree 3 agree 4 strongly agree

24. The professional nursing staff provide ongoing support and role modeling to the non professional staff caregivers.

1 strongly disagree 2 disagree 3 agree 4 strongly agree

The following questions relate to your perception of the impact of the unit on your relative's mental status, physical status and behavioral status.

25. I feel that my relative's cognitive status/ orientation has been maintained.

1 strongly disagree 2 disagree 3 agree 4 strongly agree

26. I feel that my relative has maintained or gained weight.

1 strongly disagree 2 disagree 3 agree 4 strongly agree

27. I feel that my relative has maintained his/her level of physical functioning.

1 strongly disagree 2 disagree 3 agree 4 strongly agree

28. I feel that the use of medications to reduce agitation has been decreased

1 strongly disagree 2 disagree 3 agree 4 strongly agree

29. I feel that the incidence of wandering behavior has decreased

1 strongly disagree 2 disagree 3 agree 4 strongly agree

30. I feel that the episodes of agitated behavior have decreased

1 strongly disagree 2 disagree 3 agree 4 strongly agree

31. I am satisfied with the care and service received on the Special Care Unit

1 strongly disagree

2 disagree

3 agree

4 strongly agree

32. The Special Care Unit has met my expectations

1 strongly disagree

2 disagree

3 agree

4 strongly agree

Please use the space provided to answer the following questions:

33. Do you feel that the Special Care Unit has had an impact on your relative's quality of life?

34. What changes have you seen in your relative's behavior, physical functioning or mental status that you attribute to the Special Care Unit?

35. What would you change in order to improve the Special Care Unit?

36. Please comment on how you feel each of these Special Care Unit features has affected your relative.

36.1 The home - like design of the unit

36.2 The multi-skilled care givers

36.3 The staff skills in working with residents with dementia

36.4 The staff to resident ratio

36.5 The involvement of families on the unit

36.6 The provision for safe wandering

36.7 Access to outdoors

Additional comments

Appendix D

Data Sheet

Resident _____
Date of Birth _____
Date of admission to Sharon Home _____
Date of admission to SCU _____

Diagnosis _____

Medical History: _____

Admission Source (i.e. home, hospital, ...) _____

A/A form information

| | |
|-----------------------------------|--------------|
| Level of care: | weight: |
| bathing and dressing: | medications: |
| assistance with meals/feeding: | |
| ambulation/mobility/transfers: | |
| elimination: | |
| professional intervention: | |
| behavior management/supervision: | |
| behavioral assessment supplement: | |

Background/social information:

Place of birth _____
Education _____
Employment History _____
Marital Status _____
Children _____
Degree of emotional support _____

Financial Status/diem rate _____
Private Companion Service _____

client:

m # 1 m # 2 m # 3 m # 4 m # 5 m # 5 m # 6
date: date: date: date: date: date: date:
admit sh admit scu

| | | | | | | |
|-----------------------------------|--|--|--|--|--|--|
| folstein | | | | | | |
| moore | | | | | | |
| level of care | | | | | | |
| weight | | | | | | |
| sleep dis. | | | | | | |
| wandering/pacing/ exit seeking | | | | | | |
| aggressive | | | | | | |
| agitated | | | | | | |
| altercations | | | | | | |
| hospital | | | | | | |
| restraint use | | | | | | |
| meds. | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| ther. rec. | | | | | | |
| | | | | | | |
| | | | | | | |
| companion | | | | | | |