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The Knowledge of Dementia Among Nursing Staff Working in Special Care Units

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**THE KNOWLEDGE OF DEMENTIA AMONG NURSING STAFF
WORKING IN SPECIAL CARE UNITS**

Julia M. Gray

**An Abstract Presented to the Faculty of the Graduate
School of Lindenwood University in Partial
Fulfillment of the Requirement for the
Degree of Master of Art**

1999

ABSTRACT

Dementia is a growing concern among the elder population. Special Care Units in long-term settings are becoming common placements for elders with dementia. The nursing staff within Special Care Units ideally have additional training in dementia. The purpose of this thesis is to examine the knowledge of dementia among nursing staff working in Special Care Units.

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COMMITTEE IN CHARGE OF CANDIDACY

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DEDICATION

Katie Kohlbrecker
Sarah Watkins
Amy Jenne
Stephanie Orlikowski
and my husband, John Gray
who have all given me the
strength to focus on my education.
For my parents who have made
my dreams possible and attainable.

I dedicate this work to all of these special people and many others along with all of the elders and their family members that have touched my life and given me the wisdom to achieve the impossible.

A special thank you to my parents who have went beyond any duty or obligation.

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Chapter One

Introduction

Dementia is a major growing issue affecting the older population.

Dementia, which can be reversible or irreversible, comes in various forms and affects all types of people. While Alzheimer's Disease is the most known and recognized form of dementia, other forms such as Binswanger Disease, Crutzfeldt-Jakob Disease, Huntington's Disease, Lewy Body Disease, Multi-Infarct Disease, Normal Pressure Hydrocephalus, and Pick's Disease are also becoming part of the recognized dementia family. In addition, conditions related to dementia such as AIDS, depression, drug interactions, nutritional imbalances, and Parkinson's Disease are being examined in relation to the process of ruling out causes of dementia. All the various forms of dementia are associated with specific behaviors, symptoms, and prognoses, which can have similarities among them. With dementia and its increased prevalence, long-term care facilities have designed programs or units to aid in the care of the demented resident.

Special Care Units (SCUs) have been bursting into the long-term care delivery system. SCUs are designed to provide effective methods in meeting the special needs of a dementia patient. Along with its unique structure, staff are to be educated on types of dementia as a whole. This education comes from a variety of sources such as in-services, workshops, and seminars, whose topics should include all known forms of dementia and the behavior associated with each dementia, in addition to behavioral management skills.

Research on SCUs is becoming more commonplace. Early studies, continuing into today, have been striving to define the SCU. Recent research has explored the stress of the unit on staff, and the effectiveness of the unit on the demented and non-dementia resident. The author has found studies that have explored training techniques and the knowledge of dementia for the most part have failed to include all types of dementia. This study is designed to examine the amount of knowledge of the multifaceted dementia across nursing staff working on Special Care Units.

Chapter Two

Literature Review

What is dementia? Dementia is a multifaceted disorder that primarily affects older populations. Its prevalence will increase as more and more people live to advanced ages (Cummings, 1995). By basic definition, dementia is a syndrome characterized by a significant deterioration of cognition in an alert person that results in impaired performances of daily activities (Small, Rabins, Barry, and Buckholtz, 1997) Dementia is seen in impaired short and long term memory and at least one of the following: (a) impairment of abstract thinking such as defining words and concepts (b) impaired judgement such as inability to make reasonable plans to deal with problems (c) other disturbances of higher cognitive functioning such as language disturbances (aphasic), failure to perform orderly functions (apraxia), and failure to recognize or identify objects despite intact sensory function (agnosia) (d) personality changes (Gintner, 1995). Dementia also can produce behavioral disturbances of combativeness, insomnia, irritability, restlessness, and wandering. Emotional disturbances are also seen such as psychosis, agitation, anxiety, irritability, apathy, lability, and depression (Cummings, 1995). Dementia is not a normal part of aging and comes in many forms, reversible and irreversible. The onset of dementia can occur at any age, usually mid to late stage of life, with a gradual progression; however, depending on the type, dementia can have a rapid onset. With mild dementia, an individual can live alone with minimal risk; however, social

activities and working may prove to be troublesome. Moderate dementia makes living alone dangerous, although the individual may fool his or her physician and family. Severe dementia results in great impairment where constant supervision is needed (Ham, 1995). For people under age fifty, the most common causes of dementia are alcoholism and Acquired Immune Deficiency Syndrome (AIDS). After the age of fifty, 60% of cases are due to Alzheimer Disease and related disorders and 20% result from strokes. The remaining 20% of older persons have dementia caused by physical disorders such as metabolic and toxic disturbances (Gintner, 1995).

Types of Dementia

Degenerative Types Alzheimer's Disease (AD) is the most common form of dementia, accounting for more than half of all cases of late onset cognitive deterioration. AD is a form of dementia that has a gradual onset with a progressive decline in memory, sparing the motor and sensory functions until the later stages. The average course of AD ranges from three to twenty years from diagnosis to death (Small et al., 1997). AD can have an onset between ages forty and ninety years old, with the majority of AD patients being over eighty-five (Gilman, 1997). Risk factors for AD, apart from increased age, are family history, head injury, and down syndrome (Cummings, 1995). AD is not a mental disorder or senility, but a progressive form of dementia that is currently not curable or even treatable, although prescribed medication can alleviate some behavioral and somatic symptoms. Various patterns of deficits

are seen in AD, but the disease begins most commonly with recent memory loss, followed by aphasia, apraxia, and agnosia (Saxon & Etten, 1994)

Today, four stages have been identified in AD. Stage 1, Forgetful Stage, begins with memory loss of recent events. Anger, lower energy, and personality changes are seen. AD patients are functional and may be working or living an everyday life; however, deficits are seen in forgetting to pay bills, phone numbers, driving a car, and losing things. This early stage presents a time of much frustration. Stage 2, Confusion Stage, signals a time when assistance managing affairs becomes necessary. The individual cannot calculate, understand, plan, or decide. The individual slows down, and is self absorbed, and cannot cope with failure. Bathing and cooking become very difficult. Stage 3, Disorientation Stage, begins the disabled period. The disease now produces lethargic effects, poor recent memory, restlessness, communication and motor problems, and possible behavioral problems. The individual now needs full-time supervision. Stage 4, Dependency Stage, is when total confusion occurs. The individual may not recognize themselves in the mirror, appears apathetic, has coordination difficulties, and little or no ability to care for self even in the simplest tasks (Alzheimer's Association, n.d.). These stages are not rigid but represent a pattern of progression that often overlaps (American Psychological Association, 1997).

Another degenerative disorder, Lewy Body Disease, is a form of dementia that is a combination of Alzheimer's Disease and Parkinson's Disease,

and co-exists with various forms of dementia. The disease may account for seven percent of dementia cases. This disease progresses more rapidly than Alzheimer's Disease but is similar in being a gradual process. Residents with Lewy Bodies will exhibit dementia along with at least one other symptom such as visual hallucinations, parkinsonian signs, or alterations in alertness or attention (Small et al, 1997).

Sometimes dementia results from preexisting conditions such as Parkinson's Disease. Dementia will follow the onset of Parkinson's Disease (Saxon and Etten, 1994). Parkinson's Disease is a slow progressive condition that destroys nerve cells and is characterized by tremors, inflexibility, slow movements, and postural instability. Dementia is more common among patients who exhibit early changes in gait and balance (Cummings, 1995). The dementia associated with Parkinson's Disease has an insidious onset and slow progression of cognitive and motor slowing, dysfunction, and memory impairment (American Psychological Association, 1997).

Pick's Disease (PD) accounts for five percent of dementia cases. The origin of the disease is unknown. Symptoms include disorientation, personality changes, and loss of social constraints (Saxon & Etten, 1994). As the disease progresses, patients become mute, immobile, and incontinent. PD is characterized by its slow progression of disorientation and its similarity to AD. The disease varies with each patient; however, the core symptoms are seen in every patient at different stages (American Psychological Association, 1997).

Creutzfeldt- Jakob Disease (CJD) is an extremely rare degenerative brain disorder characterized by the sudden onset of a transmitted or inherited virus leading to many symptoms. Patients have confusion, depression, behavioral changes, impaired vision, and/or lack of coordination. As the disease progresses, patients will experience muscular weakness, loss of muscle mass, muscle spasms, and involuntary writing movements. Later stages lead to coma and increased respiratory infections (Johnson & Gibbs, 1998). Fatality is seen within one year of symptom onset (Cummings, 1995).

Huntington's Disease (HD) is a degenerative disorder causing uncontrollable, jerky movements, loss of intellectual facilities, and emotional disturbances. The disease is inherited and is present at birth. Symptoms can appear from age four to as old as eighty-five. HD targets cells in the areas of the brain that control functioning and coordination. Symptoms are gradual and progress over fifteen to twenty years. The early symptoms include visual impairment, uncontrollable muscular movements, stumbling, and clumsiness. HD does not lead to fatality; an individual will die with the disease not from the disease (Saxon & Etten, 1994).

Vascular Dementia Vascular dementia is the second most common type of dementia. In vascular dementia, an individual declines in cognitive abilities as a result of a small stroke or series of strokes. Unlike AD, vascular dementia occurs more abruptly, from hours to days (Gintner, 1995).

Five major vascular dementia syndromes have been recognized:

Strategic Infarct Dementia, Angular Gyrus Dementia, Lacunar State, Binswager Disease, and Multi-Infarct Dementia. Strategic Infarct Dementia is caused by small infarctions uniquely positioned to affect several cognitive processes. Angular Gyrus Syndrome is a lesion on the left side of the brain resulting in apraxia, disorientation, and constructional impairment. Lacunar State and Binswager Disease result from small infarctions and ischemic injury to white matter in the brain resulting in psychomotor slowing, memory disturbances, and apathy (Cummings, 1995). Binswager's Disease appear to be less rare than once thought to be. Multi-Infarct Dementia (MID) is the most common alternative diagnosis of dementia, being the second leading cause. MID results from cumulative cerebral damage caused by little strokes that may go unnoticed (Ham, 1995). MID is characterized by an abrupt onset happening at any age but less common after age seventy-five (American Psychological Association, 1997). Probable risk factors are high blood pressure and advanced age. Symptoms occur in a stepwise deterioration course including confusion, short term memory loss, wandering, incontinence, emotional disturbances, and difficulties in following instructions (Saxon & Etten, 1994).

Other Progressing Dementias Another form of dementia is the ventricular disorder known as Normal Pressure Hydrocephalus (NPH). This neurological disorder results from excess fluid in the brain (Saxon & Etten, 1994). Surgery can be performed to reverse the excess fluid. The disease may

be caused by a birth defect, hemorrhage, viral infections, meningitis, tumors, or head injury. Symptoms include nausea, headaches, irritability, lethargy, sleep disorders, seizures, visual impairment, and tiredness. Behavioral changes are seen in memory loss, gait disturbances, incontinence, and general slowing in activity (Benzel, 1990).

Along with somatic conditions, mental conditions can also trigger dementia such as depression. Dementia and depression are commonly seen coexisting and can often be difficult to distinguish. Depression is the most common mental illness in the elderly; however, it is often underdiagnosed within this population as it is difficult to recognize. Depression is a mood disorder characterized by disturbances in emotional, cognitive, behavioral, and somatic regulation (“Diagnosis and Treatment of Depression in Late Life”, 1991). Common symptoms include: depressed mood, guilt, and becoming less observant with age; however, somatic symptoms such as sleep difficulties, appetite changes, and loss of energy are more evident (Gintner, 1995). Depression can result from dementia or depression can lead to dementia. Severe depression can result in cognitive deficits that may be reversible or irreversible. Residents with reversible dementia and depression will usually result in having irreversible dementia within five years (Small et al., 1997).

Besides the preceding forms of dementia, a number of reversible and irreversible conditions can also produce dementia. Down Syndrome and white matter disease are degenerative dementia disorders. In recent times AIDS has

been shown to cause dementia. Head trauma and strokes along with liver disease, kidney disease, lung disease, and diabetes can produce dementia. Medication interactions and infections can also lead to dementia as can toxic, metabolic, and systematic diseases such as alcoholism and vitamin deficiencies. (American Psychological Association, 1997).

There are nutritional deficiencies which can produce dementia-like symptoms. Specifically, Folate and Vitamin B 12 deficiencies are associated with dementia and cognitive impairment (Bottiglieri, 1996). Vitamin B 12 deficiencies can lead to gait disturbances, mental confusion, and delirium. Approximately 30% of all elderly suffer from B 12 deficiencies. Severe B 1 (thiamin) deficiencies show symptoms of mental confusion, loss of eye coordination, loss of motor control, and general weakness. General malnutrition of proteins, carbohydrates, and fats are also risk factors which can lead to mental impairment, confusion, and depression (Hunter, 1998).

SPECIAL CARE UNITS

Dementia is increasing in the elderly population. Appropriate and effective institutionalization is critical to the dementia affected population. Long-term care facilities have always cared for individuals with various forms of dementia even before dementia was a classified diagnosis. It is estimated that 80% of all nursing home placements have some form of dementia or a diagnosis that produces dementia symptoms (Weiner and Reingold, 1989). As a result of the increased number of people diagnosed with dementia and the

care needed to attend to such associated behaviors, Special Care Units (SCUs) were designed to meet critical needs of both the resident and nursing staff. Between 1987 and 1991 the number of SCUs in the United States doubled (Sloane, Lindeman, Phillips, Moritz, and Koch, 1995). With such an increase in units, researchers have looked to see the effectiveness of their structure. Also, concerns have arisen over using SCU as marketing tools for business. Regulations of SCUs are few and minimal studies have examined their effectiveness. "It seems premature to create regulations where there is very little knowledge" (Kovach, 1996, p. 52).

SCUs are defined as separate units, wings, or clusters within units that are separate sections in nursing homes designed for dementia residents. In the early 1980's SCUs were developed to experiment with alternative structures in order to handle distinctive behavioral problems associated with dementia (Mor, Banaszak-Holl, & Zinn, 1995). Within the SCU, programs and environment differ from the traditional nursing home setting. No criteria or standards for what constitutes a SCU exist; however, many SCUs share common features (Sloane et al., 1995). These features include but are not limited to separate units with controlled on or off access, admission criteria limited to patients with a diagnosis of dementia, extra staffing, special staff training, and special programming (Kovach, 1996). SCUs have various program objectives as defined in a study done by the Hebrew Home for Aged between 1985 and 1986. The objectives are:

- *to provide safe, secure, and supportive environment . . .

- *Improve the environment and community of mentally intact patients

- *Reduce feeling of anxiety and confusion . . .

- *Help patients reach or maintain their optimal levels of physical and cognitive functioning

- *Provide holistic patient care

- *Offer care providers understanding, training, and education . . .

- *Recognize that demented patients are entitled to experiences and activities that will enhance the quality of lives

- *Recognize that patients are autonomous and can expect that their special needs and those of their families will be met with sensitivity and appropriateness

- *Provide patients with opportunities to succeed, which will build dignity and hope (Weiner and Reingold 1989, p. 15).

The environment of SCU is designed to be separate from the traditional nursing home setting. In the SCU, safety and security become primary concerns. Some SCUs are closed or locked. The size of the units vary depending on available space; however, most units have under 50 bed capacities. The ideal layout would include a continuous area enabling residents to wander and nursing stations would be centrally located. Private rooms are rare due to their isolation effects (Ohta & Ohta 1998).

Staffing Staffing development and assignment in special care units are crucial. A hierarchy exists within an institution with the Administrator as the head and the nursing assistant, the primary care giver, at the bottom. The nursing staff is made up of a director of nursing (DON), registered nurse (RN), licensed practical nurse (LPN), certified nursing assistants (CNA), and/or nursing assistants (NA). Within the nursing staff, the CNA or NA is the only position that does not require a degree. To be certified, an NA must complete a state certified class along with supervision of their practices and passing a state certification exam. CNAs of NAs typically range from 16 years old to 40 years old, are female and hold high school diplomas (Aroskar, Wong, & Kane, 1990).

The job of a CNA or NA has high physical demands of bathing, lifting, pericare, and transferring. The turnover is high; an aide frequently will have worked in many different nursing homes. The skills required to be an NA are minimal. "Nursing aides are criticized for their lack of skills, the facilities for their weak training programs, and governments for their inadequate funding of nursing home care" (Aroskar, Wong, & Kane, 1990, p.272). Within a SCU, staffing ratios vary from one to three to one to twelve and will vary from shift to shift. Units with high staffing ratios tend to have little or no personal stress related to the job along with little turnover, while low staffing ratios show opposite results, leading to fewer opportunities for a trained staff (Ohta & Ohta, 1998). Research indicates that training nursing staff about dementia has

led to positive effects on residents and staff such as improving staff's attitude, perception of dementia and its behavior, communication abilities with demented residents, and ability to handle dementia resident in a holistic approach (Grant, Potthoff, Ryden, and Kane, 1998).

Training Training in nursing homes comes from a variety of sources such as written manuals, supervised one-on-one interaction, and audio-visual materials. The majority of training in nursing homes is taught through in-services and instructional manuals; however, follow-ups of on-the-job training is a key role in job performance. In-service training consists of classes that are usually taught by an In-Service Coordinator, preferably an RN (Stevens, Burgio, Bailey, & Burgio, 1998). Instructional manuals such as the "Care for Alzheimer's Patients; A Manual for Nursing Home Staff" are included in classes such as given in certified nurses aide training. On-the-job training is taught through observation and performance. Skills will be explained and demonstrated in great detail followed by the demonstrator observing the newly learned skills (Aroskar, Wong, & Kane, 1990). Licensed staff may also attend outside workshops or seminars or an outside consultant may come into the facility for an in-service (Grant, Potthoff, Ryden, & Kane, 1998). Supplements to in-service classes and observation are audio-visual materials, an easy and quick way of learning new skills. Not only is the staff given time to relax and watch videos, but new skills are presented and demonstrated in one setting (Grant, 1998).

Training Topics Well trained nursing staff provides not only adequate but quality care to dementia patients. Many topics should be included in their training. Staff should be aware of common organic forms of dementia, and the behaviors which coincide with them ("Is Your Risk Management Program," 1993). Each resident living in a SCU has different symptoms of dementia and will be at different stages. A tendency exists to classify dementia residents as "Alzheimer's", which underplays the likelihood of other possible causes of dementia ("Staff Training," 1994). Strategies for dealing with the behaviors exhibited by dementia patients should be a main training topic ("Is Your Risk Management Program," 1993). Behavioral management skills are crucial in dealing with dementia patients. Unlike the past, psychotropic drug usage is limited and the act of sedation for abnormal behavior is rarely seen other than in extreme circumstances. Knowledge of the behaviors leads to tracking their frequency, giving way to a plan of care for the resident. Within behavioral management, techniques such as: (a) reality orientation, (b) validation therapy, (c) redirection, and (d) activity should be crucial topics. A certain extent of usage for each technique does vary from each resident ("Staff Training," 1994).

Along with managing behaviors, communication techniques can be very successful ("Is Your Risk Management Program," 1993). "Often, it may take up to 30 seconds for a dementia patient to process information" ("Staff Training," 1994, p.2). There is a difference in communicating with an alert and oriented person. Utilizing poor skills when communicating with a resident may

result in agitation and combative behavior ("Staff Training," 1994).

Techniques such as talking slowly, using simple words, being positive, making eye contact, and watching body language should prove to be useful. Making staff aware of the influences of the physical environment on the physical condition and behavior of patients can also reduce the likelihood of agitation and combative behavior. Often, dementia patients do not like noise or disorganization. Being aware of demented resident's preferences will help to provide a safe and calm environment. Along with techniques to handle behavioral problems and reducing safety hazards, staff must be educated on keeping the resident free from exploitation and abuse, not only from other staff but from other residents ("Is Your Risk Management Training," 1993).

Besides training in the need to be knowledgeable about the different types of dementia, their unique behaviors, and providing safe environments, staff should also be educated on the families of dementia patients and their predicament and the strain and stress for caring for their loved ones ("Is Your Risk Management Program," 1993). As families make transitions from home placement to nursing home placement, they shift roles from caregiver to visitor. Such a transition often leads to guilt and grief. Staff should be able to console family members or refer them to the appropriate staff and available support group. In addition to supporting families, staff also need support. Caring for dementia patients has proven to be stressful. A resident may exhibit personality changes at any given time and may become combative. Along with repetitive

questioning and behaviors, behavioral management techniques may fail. Such experiences may grow tiresome and become stressful, leading to burnout. All staff need education of the signs of stress and available options in developing stress management techniques ("Staff Training," 1994).

Research on the Effectiveness of Staffing

Due to the enormous growth of SCUs, research has begun to look at program effectiveness; however, research on staff and dementia training is scanty. While little research has been conducted conclusively, some examples have led the way to future research. The National Institute on Aging (NIA) has attempted to answer to the lack of research by developing the SCU Initiative. The NIA looks to evaluate the effectiveness of the SCU and the costs of such care in respect to: (a) the impact on the demented resident, (b) the impact of the SCU on the non-demented resident, (c) the impact on the family, (d) the impact on the staff including the level of training and their knowledge of dementia. The study includes ten sites examined over five years and proposes a standardize definition of the SCU (Sloane, Lindeman, Phillips, Moritz, & Koch, 1995).

Another study compared SCUs versus traditional nursing home settings by using the Nursing Unit Rating Scale (NURS) which examined home settings across six influential factors: a) adaptation, b) separation, c) stimulation, d) complexity, e) control/tolerance, f) continuity. The NURS was given to staff in 390 units in the United States. The results showed that differences do exist between a SCU and traditional nursing home settings, and that SCUs appear to

offer settings more appropriate for a dementia patient to adapt to and allow for more appropriate care. Within this study the participants were nurses; nursing assistants were not interviewed (Grant, 1996). Also, staff training was a major factor included in this study. However, the instrument used to assess the training consisted of an eleven item questionnaire that assessed the extent of training techniques used to educate staff about dementia care; no questions probed the effectiveness of such techniques or the lack of knowledge of dementia (Grant, 1998).

Between 1985-1986, the Hebrew Home for Aged surveyed forty-two nursing homes in the United States that claimed to have a special unit or program for people with Alzheimer's Disease or related disorders and attempted to create models for SCUs. Results from the study included objectives for SCUs such as reasons for discharges, environmental factors, staffing, activities, and training summaries that could be used as models for future SCUs. In respect to staffing within the study, units that had moderate to severe dementia patients had higher staffing ratios, while staff working in the unit that primarily had residents with early stages of dementia and little nursing needs and were ambulatory reported a lower staffing ratio. As training was examined, twenty-one of the forty-two surveyed facilities provided information about techniques used in dealing with dementia patients, education about dementia, and staff support. Sixty-six percent of the twenty-one facilities had hired nursing staff with prior training in a SCU or trained staff to work in the

unit. 48% of the facilities offered continued in-service training (Weiner & Reingold, 1989).

A more recent study was conducted by the Alzheimer's Association which surveyed 112 state ombudsman's, sixty-one directors of state nursing home licensing agencies, and 453 family care givers on their experiences with a SCU. In the reports, family members were satisfied with the care received in the SCU; however, staff did not offer alternatives to nursing home placement. Also, the data suggested the differences between the care given in SCUs versus traditional nursing home settings is minimal as it relates to specialized activities, staffing, and extra training. In recommendations the Alzheimer's Association suggests that a full disclosure of the special services provided by the unit is needed along with a need to improve professional training and consumer education ("Special Care Units," 1995).

A study performed by Grant, Potthoff, Ryden, & Kane (1998) looked at staffing patterns and staff training in nursing homes within SCUs. The data collected for the study was done through face-to-face interviews with in-service coordinators and supervisory nursing personnel from 400 units in 124 Minnesota nursing facilities. Both facilities with SCUs and without SCUs were used for comparison purposes. In regards to training, the method, content, and type of staff were areas examined. The results showed that more dementia training was seen in a SCU facility versus a non-SCU facility. In SCU facilities, few differences were seen in the type of staff trained and the content taught,

possibly an appropriate method if staff rotated working on the unit. The study did emphasize the importance of using a variety of training tools, and the content of such training that was surveyed did cover various areas of dementia training care, behavioral management, behavioral changes related to dementia and Alzheimer Disease, and communicating with dementia patients. However, the study appeared to classify Alzheimer's Disease and dementia as if they were synonymous terms. While dementia care and the behavior associated with dementia were examined, the study did not look into the staff's knowledge of dementia and its various forms. (Grant, Potthoff, Ryden and Kane, 1998).

Chapter Three

Method

Participants

Five nursing homes the St. Louis area participated in this study. Four nursing homes were under the same corporation and one nursing home was independently owned. Each facility was required to have a Special Care Unit. Social workers in such facilities passed out the questionnaires to the nursing staff. The participants were nursing staff personnel that worked in the Special Care Unit directly with the residents.

Materials

After reviewing the literature, a questionnaire (see appendix A) was designed to identify the extent of knowledge of dementia and its various forms by the nursing staff. The questionnaire consisted of an introduction and appreciation statement followed by ten true and false questions. Another section was added where the surveyors circled items they believed to be related to dementia. Also, demographics of age, education, occupation, specialized training, place of training, and training offered by employer was asked.

Procedure

At least four nursing homes were identified that marketed having Special Care Units. A listing of area nursing homes with Special Care Units was obtained from the Alzheimer's Association. Four nursing homes of the five were from the same corporation. For analytical purposes, a fifth nursing home was chosen specifically because it represented an independently owned facility.

Each nursing home's social worker was contacted and asked for their help in the study. All five social workers agreed. The questionnaires were mailed to each social worker. Within the mailing was a letter of explanation, twenty questionnaires, and a return, stamped 8 ½ X 11 envelope. Once the social workers received the questionnaires, they were to ask nursing staff and personnel who worked in the Special Care Unit to complete the questionnaire. After accumulating at least eight or more questionnaires, they were to be returned in the self address, stamped envelope.

Once the data was received the questionnaires were tallied according to the facility in percentages. The results were compared within each facility according to type of nursing personnel and also each other. All true and false questions asked were objected with a right or wrong answer. The bottom of the questionnaires required that participants identify forms of dementia. This section also was tallied for comparison purposes.

Chapter Four

Results

All five facilities, A, B, C, D, and E, returned the questionnaires. In total, forty questionnaires were returned by, nine registered nurses, ten licensed practical nurses, twenty-five certified nursing aides, and five nursing aides. The ages of the respondents ranged from seventeen to forty-nine. Twenty-five of the participants indicated that they had special training in dementia. The respondents who had additional dementia training indicated that they received their training at the Alzheimer's Association, college, and/or work. In reviewing the questionnaires, all five facilities offered some form of dementia training. See Table 1 for a complete breakdown of the demographic information received.

In comparing the ten questions among the five facilities, A, B, C, D, and E, scores ranged from 66% to 79%, indicating that overall the facilities answered correctly six of eight questions. Nurses answered more questions correctly than aides. No significant differences in the average scores were seen among the four corporate facilities versus the independent Facility E.

Question 1 At least half of all nursing home residents suffer from some form of dementia. The answer is true. The average score among the facilities was 84% answering correctly. Facility A had the lowest score of 70% with facility D having the highest of 92%.

Question 2 Dementia can be produced by reversible and irreversible conditions. The answer is true. The average score was 64% answering correctly

Table 1

Demographics of Surveyed Nursing Staff

	Facility A	Facility B	Facility C	Facility D	Facility E	Total
Number of Respondents	10	8	11	12	8	49
Age						
17-25	2	1	2	3	1	9
26-35	2	5	5	5	4	21
36-49	6	2	4	4	3	19
Education						
College	4	4	4	4	3	19
High School	3	1	5	7	5	21
In High School	3	2	1	1	0	7
Did not Graduate High School	0	1	1	0	0	2
Occupation						
RN	1	3	2	2	1	9
LPN	3	1	2	2	2	10
CNA	5	3	5	7	5	25
NA	1	1	2	1	0	5
Special Training Where Trained	10	8	3	2	2	25
	In-services, College, Alzheimer's Association	College and Work	College, Work, & Alzheimer's Association	College and Alzheimer Association	College and Work	
Employment offer training	Yes	Yes	Yes	Yes	Yes	

Facility B answered 38% correctly and Facility E answered with the highest of 88%.

Question 3 Dementia is a normal part of aging. The answer is false.

The average score was 82%. Facility A and B answered 100% correctly and

Facility C had the lowest score of 55%.

Question 4 Multi-infarct dementia is a form of dementia resulting from multiple strokes in the brain. The answer is true. The average score was 78%. Facility D had the highest score of 92% and Facility B and E had the lowest score of 75%.

Question 5 Multi-infarct dementia has symptoms similar to Alzheimer's Disease. The answer is true. The average score was 85%. Both Facility A and E answered 100% correctly. Facility C had the lowest score of 64%.

Question 6 Alzheimer's Disease cannot be positively diagnosed until an autopsy is performed. The answer is true. The average score was 87%. The highest score was seen with Facility A and D having 100%. The lowest score was Facility C with 73%.

Question 7 After having a stroke, dementia symptoms may occur, due to brain damage. The answer is true. The average score was 89%. Both Facility A and D scored 100%. Facility E scored lower with 75%.

Question 8 Parkinson's Disease is unrelated to Alzheimer's Disease. The answer is false. The average score was 53%. Facility C scored highest with 73% and Facility A scored lowest with 10%.

Question 9 Depression can often be miss-diagnosed as Alzheimer's Disease. The answer is true. The average score was 60%. The highest score was 75%, Facility B. Facility D had the lowest score of 42%.

Question 10 Infections, nutritional deficiencies, and reactions to medicines can produce symptoms of dementia. The answer is true. The average

score was 76%. Facility A scored 100%. Facility D scored 50%. See tables 2 and 3 for a complete breakdown of scores among each facility and staff.

Table 2

Percentages of Correct Answers Among the Five Facilities

Respondents	Facility A	Facility B	Facility C	Facility D	Facility E	Total
	10	8	11	12	8	49
Q-1	70	88	82	92	88	84
Q-2	70	38	82	42	88	64
Q-3	100	100	55	92	63	82
Q-4	80	75	82	92	75	78
Q-5	100	75	64	100	88	85
Q-6	100	88	73	100	75	87
Q-7	100	88	82	100	75	89
Q-8	10	50	73	67	63	53
Q-9	60	75	73	42	50	60
Q-10	100	75	82	50	75	76
Facility Average	79	66	75	78	74	

Table 3

Comparisons Between Nurses and Aides and Their Number of Correct Responses

	4 Nurses- 6 Aides	4 Nurses- 4 Aides	4 Nurses- 7 Aides	4 Nurses- 8 Aides	3 Nurses- 5 Aides
Q-1	3-4	3-4	4-5	4-7	3-4
Q-2	3-4	2-1	4-5	3-2	3-4
Q-3	4-6	4-4	3-3	4-7	3-2
Q-4	3-5	4-2	4-5	4-7	3-3
Q-5	4-6	3-4	4-2	4-8	3-4
Q-6	4-6	3-4	4-4	4-8	3-3
Q-7	4-6	3-4	4-5	4-8	3-3
Q-8	1-0	2-2	4-4	4-4	3-2
Q-9	2-4	4-3	4-4	3-2	3-1
Q-10	4-6	3-4	4-5	3-3	3-3

The next part of the questionnaire listed numerous conditions as being related to dementia and asked for the unfamiliar to be circled. Creutzfeldt-Jakob

Disease and Binswager Disease were circled most as not frequently being familiar with related conditions to dementia with 95%. Second was AIDS with 50%, followed by Pick's Disease, 65%; head injuries, 50%; high fevers, 50%; alcoholism, 50%; Parkinson's Disease, 50%, and emotional problems 50%. See Table 4 for a complete breakdown of the related conditions of dementia and the percentages of unfamiliarity.

Table 4

Percentages of Surveyed Nursing Staff Not Recognizing as Related to Dementia

	%	Nurses	Aides		%	Nurses	Aides
Stroke	0	0	0	Poor Nutrition	20	0	10
Rare Viruses	5	1	2	Reactions to meds	20	0	10
Parkinson's Disease	50	3	22	Head Injury	50	0	25
Alzheimer's disease	0	0	0	High Fevers	50	0	25
AIDS	80	11	29	Infections	25	0	25
Thyroid problems	75	8	30	Binswager Disease	95	18	30
Alcoholism	50	3	22	Depression	40	2	18
Emotional problems	50	5	25	Huntington's Disease	45	2	20
Creutzfeldt-Jakob	95	18	30	Pick's Disease	65	5	28

Chapter Five

Discussion

The results of the ten questions indicate that more training is needed in the general knowledge of dementia. Surveys indicated that all five facilities did offer employment training; however, only half of all participants indicated having training in dementia. Both nurses and aides were lacking in the needed, additional training. As seen in the circled section of the survey, additional training is needed regarding conditions other than strokes and Alzheimer's Disease as being related to dementia.

Facility A, B, C, and D did not show strong differences in their knowledge of dementia. While Facility E did score higher (74%) than Facility B (66%), Facility E was comparatively close to Facilities A, C, and D. Question 2 appeared to show weakness from Facilities A, B, and D, as they are not associating dementia as reversible or irreversible. Question 8, relating Parkinson's Disease to Alzheimer's Disease, proved difficult for all facilities, with an average score of 53%. Facility A had only one individual who answered correctly to Question 1. Question 9, suggesting that depression can be misdiagnosed as Alzheimer's Disease showed a weakness in all facilities, especially Facilities A, D, and E.

Strength in knowledge was seen in the recognition of great numbers of dementia residents in nursing homes, dementia not being a normal part of aging, Multi-infarct dementia's having similarity to Alzheimer's Disease, Alzheimer's Disease having true diagnosis at autopsy, and strokes possibly resulting in

dementia. Facility A showed strength in knowledge in all questions except question 8 and 9. Questions 3, 5, 6, and 7 had a combination of two facilities answering 100% correctly.

Strengths were greatly seen in the nursing staff that were surveyed, as possibly related to their advanced training over the aides. Facility E's nurses answered all questions correctly. Facility A, C, and D had comparable results in their nursing staff's knowledge of dementia. With Facility B, the aides actually did better than the nurses on the questionnaire. Ironically, Facility B had the most RNs surveyed.

When inquiring about the conditions being related to dementia, strengths were seen in Alzheimer's Disease and Stroke. Great weaknesses were seen in Binswager Disease and Creutzfeldt Jakob, but both diseases have little occurrences in nursing homes. However, thyroid problems, high fevers, head injuries, and Parkinson's Disease have great prevalence in nursing homes and the surveyors had a 50% or greater response of not recognizing the conditions as related to dementia.

When comparing all of the data collected from the SCU nursing personnel across five facilities, some inferences might be made. On average the nursing staff did score 70% or better, strengthening the belief that the training they have received has been somewhat effective. Additional training is needed in reversible dementia along with metabolic and systematic diseases. Also, training is needed in Parkinson's Disease and Depression as they relate to dementia. All facilities

did have weaknesses in topics concerned in at least two of the ten questions, suggesting that general overviews of dementia are needed.

This study suggests ground work for future study. Studies of SCUs and nursing staff are in a preliminary state only. The National Institute on Aging has been trying for five years to set a standard definition of a SCU and lay out objectives. As SCUs are defined as to what they should be, research is needed on what current standards exist, including staff, amount of training, and the content of training.

Many suggestions can be made for future research. Besides asking nursing staff about their knowledge of dementia, a future study could include the training methods and the content of such training as it relates to dementia. Another study could inquire about the knowledge of various forms of dementia and behaviors associated in comparison with behavioral management techniques. While the author would have liked to include the physician's knowledge level of dementia, a future study might compare nursing versus physician's knowledge of dementia. Such research could prove the effectiveness of SCUs and the nursing staff in these units will help to give an overview of knowledge on whether institutionalization and SCUs are the right approach for the demented community.

Appendix A

Hello,

Currently, I am working on my master's thesis in my graduate study of Gerontology at Lindenwood University. This is a survey designed to aid in my research. I would appreciate you taking the time to complete the survey.

- | | | |
|----------|-------|---|
| 1. TRUE | FALSE | Half of all nursing homes residents suffer from Alzheimer's Disease or a related disorder. |
| 2. TRUE | FALSE | Dementia can be produced by reversible or irreversible conditions. |
| 3. TRUE | FALSE | Dementia is a normal part of aging. |
| 4. TRUE | FALSE | Multi-Infarct Dementia is a form of dementia resulting from multiple strokes in the brain. |
| 5. TRUE | FALSE | Multi-Infarct Dementia has symptoms similar to Alzheimer's Disease. |
| 6. TRUE | FALSE | Alzheimer's Disease cannot be positively diagnosed until autopsy. |
| 7. TRUE | FALSE | After having a stroke, dementia symptoms may occur due to brain damage. |
| 8. TRUE | FALSE | Parkinson's Disease is unrelated to Alzheimer's Disease. |
| 9. TRUE | FALSE | Depression is often miss-diagnosed as Alzheimer's Disease. |
| 10. TRUE | FALSE | Infections, nutritional deficiencies, and reactions to medications can produce dementia symptoms of dementia. |

Circle the following which you do not recognize as being related to dementia.

STROKE	POOR NUTRITION
RARE VIRUSES	REACTIONS TO MEDICATIONS
PARKINSON'S DISEASE	HEAD INJURIES
ALHEIMER'S DISEASE	HIGH FEVERS
AIDS	INFECTIONS
THYROID PROBLMES	BINSWAGER DISEASE
ALCOHOLOISM	DEPRESSION
EMOTIONAL PROBLEMS	HUNTINGTON'S DISEASE
CREUTZFELDT-JAKOB DISEASE	PICK'S DISEASE

Age _____

Education level _____

Do you have any training in dementia? ___yes ___no

If so, where did you receive your training? _____

Does your facility offer regular training in dementia? ___yes ___no

THANK YOU FOR PARTICIPATING IN THIS STUDY.

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Vita Auctoris

Julia Melinda Gray was born in Breese, Illinois. She attended Mater Dei High School in Breese, IL and received a baccalaureate of psychology from University of Louisville. Throughout working with the elder population and studying gerontology, Mrs. Gray developed great interests in elder rights and government programs for long-term care. Her future goals are to continue fighting for the quality of life and dignity issues related to older populations.