HOW DO NURSES CARE FOR HOSPITALIZED OLDER ADULTS AT RISK FOR DELIRIUM?

by

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ABSTRACT

How do Nurses care for Hospitalized Older Adults at Risk for Delirium?

Almost half of the people in our hospitals are over the age of sixty-five, and this demographic is only going to rise with the aging of our population. Up to fifty-six percent of hospitalized older adults are at risk of experiencing delirium either on admission or at some point during their stay. As one would expect with a subject of such magnitude, there is an abundance of literature describing how best to assess, manage, and prevent delirium in the older adult. The literature also identifies nurses as key to intervening with delirious older adults and describes how to educate nurses to care for this population. However, although a large population experiences delirium every day in our hospitals, nurses recognize only thirty percent of cases. Since recognition of delirium is necessary in order to plan care, this is an alarming statistic. If delirium is not treated it can lead to serious outcomes, even death to older adults. Not only do older adults experience detrimental consequences from delirium, but nurses experience frustration due to the increased workload, and institutional costs for hospitalization rise due to increased lengths of stay caused by delirium.

What is clearly lacking in the literature is an understanding of how nurses currently care for this population. Attempts to implement best practices as described in the literature will fall short until there is an understanding of current practice, what is working and what the challenges are. To understand current practice a qualitative study was conducted in a small regional hospital. Since a large portion of seniors in British Columbia are cared for in small regional hospitals, understanding the context of this type

of setting is important. Twelve nurses were interviewed with the research objective of determining the strategies nurses use to assess, prevent, and manage delirium in older adults.

Data analysis revealed that nurses care for older adults in a setting that is focused on efficiency of moving patients through the system. The efficiency is determined by acute medical illness rather than the age. This approach to care leads to nurse frustration as the speed at which the nurse must complete her or his patient care activities does not match the speed which older adults are able to function. To manage this conflict, nurses made choices about how to manage the care of the older adult and still get their work done. Nurses used safety as a guiding principle in choosing how to manage care of this population. To achieve safety, nurses positioned patients so that they could frequently monitor them, and they used chemical and physical restraints. To determine the cognitive status of the older adult and thus anticipate safety needs, they used purposeful questioning and careful attention to subtle physical cues. Nurses reported that their ability to pick up on, and manage delirium developed over time, with experience, and through watching other nurses. They talked about how "wished" they could care for older adults if they had more time.

Caring for older adults occurs without the spoken recognition that we are caring for an older population with complex needs. Thus, nurses manage their workload by chemically and physically restraining older adults, so they can complete their necessary patient care activities. Nurses identified that there is a lack of people resourses, education, and appropriate physical space to care for this population differently. They

also spoke of the assumptions implicit in practice that old people are confused, and dealing with that is just part of nurses' work.

Implications for practice are that when we examine which population we are caring for, and address how best to meet their unique needs, we will ultimately move older adults through their illness more efficiently. This includes developing staffing levels, education, and physical spaces that support caring safely for older adults. It is time for the system to acknowledge that efficiency with older adults will look different from efficiency with a younger population.

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DEDICATION

My thesis is dedicated in loving

memory of my father

Harry Dahlke

1929 – 2003

CHAPTER 1

Overview of the Research Problem

Delirium, commonly known as acute confusion, is a medical emergency that can have disastrous outcomes for patients, nurses, and hospital systems if left untreated (Covinsky et al., 1998; Foreman, Mion, Tryostad, Fletcher, & NICHE, 1999; Pugh 1999; Matthiesen, Sivertsen, Foreman, & Cronin-Stubs, 1994; Rapp, Wakefield, et al., 2000; Wakefield, 2002). Medical literature describes how to assess and treat delirium, and identifies nurses as being pivotal in caring for delirious patients. Yet, in actual practice, research shows that only 30% of nurses recognize the condition (Chan & Brennan, 1999; Ribbey & Cox, 1996; Rosen, 1994). If the condition is not being recognized, we can assume that it is going untreated.

Seniors occupy at least 48% of acute care hospital beds across North America, and up to 60% of those seniors experience delirium either on admission or at some point during their hospital stay (Inouye, Bogardus, Charpentier, Leo-Summers, Acampora, Hoford, & Cooney, 1999; Inouye, Rushing, Foreman, Palmer, & Pompei, 1998; Wesley, Margolin, Francis, May, Truman, Dittus, Speroff, Gautam, Bernard, Inouye, 2002). The number of older adults in general is increasing as our population is aging. Since the number of older adults as risk for delirium is currently high, and is increasing, and since nurses are the providers or directors of care, one must ask: what is the nature of care nurses are currently providing to older adult hospitalized patients at risk for delirium, and is this care adequate?

Defining Delirium

Delirium is "an alteration in consciousness with a change in cognitive ability that occurs over a short period of time" (Martin & Haynes, 2000, p. 210). The alteration in consciousness is manifested by a reduced clarity of awareness (American Psychiatric Association, DSMV-IV, 1994), and the cognitive changes are characterized by disorganized thinking and inattention (Inouye, Foreman, Mion, Katz, & Cooney, 2001).

There are three different presentations of delirium: hypoactive, hyperactive, and mixed delirium. The delirious older adult can present as lethargic, apathetic, and quiet when experiencing hypoactive delirium (O'Keeffe, 1999; Rosen, 1994; Wakefield, 2002). In hyperactive delirium, an older adult can present as active, agitated, and restless (O'Keeffe & Lavan, 1999). The older adult may also present with a variable pattern, including hypo and hyper characteristics (Lipowski, 1990).

Identifying delirium is made more complex because the disorientation that first alerts nurses to a cognitive change in the older adult patient is also present in dementia and depression. Other similarities to dementia and depression are memory impairment, changes in sleep/wake patterns, and decreased ability to attend to the simplest of activities of daily living, for example, feeding oneself. The irritability, apathy, and decreased concentration associated with depression can look very similar to hypoactive delirium, while the delusions and aggressive behaviors in hyperactive delirium can look very similar to those in dementia. The older adult can have all three or any combination of these three conditions, making it difficult to determine if delirium, a potentially deadly but treatable condition, is present.

Background to the Problem

Historical Perspectives

Through the ages, delirium has been the subject of countless research studies, theories, and methods of treatment. Delirium was first diagnosed in Hippocrates' time, as a severe disturbance in thought and mood in physically ill individuals caused by a mental impairment (Lipowski, 1990; Runes & Kiernan, 1964). This theory persisted until the seventeenth century, when acceptance of the Cartesian belief in the separation of mind and body caused western medicine to question the relationship of physical and mental diseases (Berrios, 1981). A breakthrough in medical thinking occurred in the seventeenth century, when delirium was identified as a symptom which could complicate any disease, but was not a disease in itself (Lipowski, 1990). However, it wasn't until the late nineteenth century that a concept of delirium had been developed that separated it from mental insanities and depression based on the argument that delirium differed because it involved the consciousness, or the mind's ability to respond to input from the senses (Berrios, 1981). It wasn't until 1980 that delirium was identified as an organic brain syndrome by the American Psychiatric Association, which gave it a place in the Diagnostic and Statistical Manual (DSM) (Lindesay, Macdonald, & Starke, 1990; American Psychiatric Association, DSM-III, 1980; Lipowski, 1990).

From Hippocrates' time through the nineteenth century, herbal preparations, physical restraint, sedation, and blood letting the fevered individual were preferred treatment methods for delirium (Lipowski, 1990). Restraining patients still exists as an intervention, even though since the nineteenth century it has been identified as ineffective and nonsupportive to the patient's psyche (Lipowski, 1990). By the beginning of the

nineteenth century, health practitioners focused on treating the underlying physical cause of the delirium and providing supportive measures for the patient. In fact, the supportive measures suggested in the nineteenth century are the same as those recommended in antiquity, and they are still valid today. They include providing a relaxing environment, emotional support, rest, good nutrition, and sedation in the case of agitation (Lipowski, 1990). However, those measures that support the delirious patient may be ignored in our depersonalized, fast paced hospitals (Lipowski, 1990).

Consequences

Delirium in the older adult is an important area of medical concern due to its prevalence and the fact that it is often the only presenting symptom of an acute physical condition (Inouye, 1998; Lipowski, 1990; Miller, 2002; Dolan, Hawkes, Zimmerman, Morrison, Gruber-Baldini, Hebel, & Magaziner, 2000). Untreated delirium can lead not only to chronic confusion and decreased physical function, but also exacerbation of the underlying physical condition. For example, if the underlying medical condition of a myocardial infarction (MI) was to go unrecognized and untreated, the older adult could experience complications of an MI such as ventricular fibrillation and death (American Heart Association, 1990; Black, Hawks, & Keen, 2001; Rockwood, Cosway, Carver, Jarrett, Stadnyk, & Fisk, 1999; Sanders, 2002; Voyer & Sych-Norrena, 2003).

The delirious patient's inability to care for his or her activities of daily living frequently leads to poor nutrition, decreased muscle tone and ultimately immobility and decreased function (Covinsky, Plamer, Kresevic, Kahana, Counsell, Fortinsky, & Landefeld, 1998; Foreman, et al., 1999; Matthiesen, et al., 1994; Pugh, 1999; Rapp, et al., 2000; Yeaw, & Abbate, 1993). These symptoms may lead to nursing home admission,

and/ or death (Bond, Neelon, & Belyea, 2002; Inouye, 1998; Inouye, et al., 1998; Rapp, et al., 2000; Rosen, 1994; Miller & Mick, 2002; Miller, 1996).

The problem goes beyond patient consequences. Nurses who care for delirious older adults are vulnerable to frustration, physical, and verbal abuse (Rogers & Gibson, 2002). Delirious patients who cannot care for themselves safely require greater nursing surveillance, increasing nurses' workloads (Foreman 1999). Rogers and Gibson (2002) found that as a result of increased workloads due to caring for delirious older adults, nurses experienced moral dilemmas and decreased self-esteem because they felt incompetent and slow when they were unable to finish their work.

Institutional consequences include increased patient care costs, as untreated delirious older adults take longer to recover from acute illnesses, if, in fact, they recover at all (Foreman, et al., 1999; Inouye, Foreman, Mion, Katz, Cooney, 2001; Marcantonio, Goldman, Orav, Cook, & Lee, 1998). Given the current shortage of hospital beds in Canada, older adults who stay in hospital for long periods of time are viewed as "bed blockers" (Rankin, 2002). A view that older adults are bed blockers may discourage nurses from looking for delirium in their older adult patients as they focus their attention on the patients they perceive as more acutely ill and thus deserving of the hospital bed.

Best Practices

Since delirium is a serious health condition experienced by a large number of hospitalized older adults, and since its consequences also impact nurses and health care costs, one would expect it to receive considerable attention in the literature. The literature does in fact identify prevalence, pathogenesis, assessment, treatment, and prevention protocols for delirium. During the past decade, the literature has focused on

the benefits of creating older adult acute-care units and older adult-friendly initiatives within hospitals to encourage prompt attention to and treatment of delirium (Covinsky, et al., 1998; Inouye, et al., 1999; Kresevic, et al., 1998; Landefeld, Palmer, Kresevic, Fortinsky, & Kowal, 1995; Miller, 2002; Panno, Kolcaba,& Holder, 2000; Simon, Jewell, & Brokel, 1997; Palmer, Landefeld, Dresvic, & Kowal, 1994). Experts have discussed how to educate nurses to be sure that knowledge about delirium is incorporated into nursing care (Joy, Carter, & Smith, 2001; Kriehbaum, Pearson, Hascom, 2000; Simons, Jewel, & Brokel, 1997; Miller, 1996). However, Fick and Foreman (2000) found that even when nurses report having learned about delirium, they still do not recognize it as frequently as researchers, possibly due to the very brief interactions that nurses were observed having with patients.

Although the literature identifies best practices for assessing and treating delirium in older adults, nurses must first recognize delirium in their patients in order to take advantage of these strategies. Despite all the literature about delirium assessments and treatments, and how to educate nurses to recognize and manage the condition, there is very little that has been written to describe how nurses actually care for delirious older adults. In order to realistically plan steps to improve care, there must first be an understanding of current nursing care, what is working well in practice, and what are the challenges nurses encounter in providing optimal care for older adults experiencing delirium.

Purpose

Although the body of literature describing how nurses presently care for delirious older adults is very small, there is considerable literature that identifies that nurses are

only recognizing thirty percent of cases (Chan & Brennan, 1999; Ribbey & Cox, 1996; Rosen, 1994). Since it is necessary to identify the problem of delirium in order to effectively plan and implement care, it is a reasonable assumption that less than optimum care for older adults is practiced in our hospitals. The purpose of this study is to describe how nurses are currently delivering care to delirious older adults and identify potential reasons for the lack of recognition of delirium. This information would assist managers in planning strategies to implement older adult care as suggested in the literature, by supporting current effective nursing practice, and addressing barriers to care for this population.

Research Question

It is important to identify potential reasons for lack of best practices in older adult care, so that strategies to improve recognition and care of older adults in our hospitals can be planned. To learn why recognition of delirium is not a common occurrence, we need to understand current nursing practice and the challenges nurses face. Thus the research question: How do nurses care for hospitalized older adults at risk for delirium?

Subsidiary questions:

How do nurses assess, prevent, and treat older adults at risk for delirium?

What are the challenges and or barriers to nurses providing best practice care to older adults at risk for delirium?

Significance of Study

Delirium is a very critical issue for acute care hospitals, as up to fifty six percent of older adults experience delirium either on admission or during their hospitalization

(Branski, 1998; Dolan, et al., 2000; Inouye, 1998; Jagmin, 1998; Miller, 1996; Wakefield, 2002). Older adults have a decreased ability to recover from an acute illness as compared to their younger counterparts, and when it is complicated by delirium, recovery is delayed and length of hospital stay is increased (Akid, 2001; Foreman, Wakefield, Culp, & Milsen, 2000; Voyer & Sych-Norrena, 2003; Wong, Wong, & Brooks, 2002). Seniors who compose almost fifty percent of the hospital population (Inouye, 1998) are more likely to stay in hospital seven days longer than younger patients (Statistics Canada, 2002), most likely in part due to their propensity to develop delirium. This is in direct conflict with the aim of acute care hospitals, which is to treat patients and then discharge as soon as possible (Bolaria & Dickinson, 2002; Michota, 1995; Nichols, 1998). Caring for delirious older adults is an issue that is only going to expand, as the fastest growing segment of the population are those eighty five years and older, the exact cohort most likely to experience health problems, decreased physical capabilities, hospitalization, and delirium (Howrowitz, Savino, & Krauss, 1999; Keltchner, 1999; Statistics Canada 2002).

Although the impact on hospitals is significant, the impact on individual older adults is even more alarming. Delirium, which normally lasts from several days to a few weeks, can become a chronic condition, or worse, the individual can die from the underlying cause of the delirium if it is not recognized and treated (Dolan, et al, 2000; Inouye, Bogardus, Baker, Leo-Summers, & Cooney, 2000; Inouye, 1998). The consequences to the older adult and the likelihood of a nurse recognizing the older adult's delirium, differs depending on the type of delirium. Nurses are seven times more likely to miss the diagnosis of delirium if the older adult has hypoactive delirium (Inouye, et al.,

2001). Due to the inactivity and quiet presentation, individuals with hypoactive delirium are at risk of developing pressure sores and hospital acquired infections, which contribute to prolonged hospital stays. In contrast, the active and often aggressive behavior of individuals with hyperactive delirium is more likely to capture the nurses' attention and thus aid in diagnosing delirium. Due to the hyperactive behavior, older adults are more likely to experience falls, agitated behavior, and as a result have more mechanical and chemical restraints, all of which complicate their underlying condition and lengthen hospital stays (Inouye, et al., 2001). The older adult with mixed delirium exhibits unpredictable behavior that alternates between hypoactive and hyperactive patterns, which complicate diagnosis as a change from a hyperactive to a hypoactive pattern could easily be misinterpreted as a resolution of the delirium and the patient engaging in some needed rest (Lipowski, 1990; O'Keeffe, 1999;Wakefield, 2002). Older adults who experience delirium on admission to hospital are three times more likely to leave the hospital as a new nursing home admission than those who are not delirious (Dolan, et al., 2000). Wakefield (2002) identified that patients with hypoactive delirium were more likely to have an increased hospital stay and had the highest rates of mortality of all the types of delirium.

In order to improve nurses' recognition and treatment of delirium, it is essential to first understand current nursing practice in this area. A search on OVID for discussions of delirium in general yielded "1,267 hits"; protocols for delirium, 13,960 "hits"; and assessment of delirium, 4,770 "hits". However, a search for topics identifying how nurses care for delirious patients revealed only two articles. These articles were found through a manual review of current journals. This study is meant to address the absence

of knowledge about how nurses provide care for older adults with delirium in acute care settings.

Summary

Older adults comprise a large portion of the population in hospitals and up to half of these older adults will experience delirium. Delirium is a potentially treatable medical emergency. Identifying cognitive changes, possible causes, treatment, and management solutions are complex and challenging aspects of care for hospitalized older adults. Due to their access to these patients, nurses are in a pivotal role to assess, intervene, and thus improve outcomes. Although much has been written about assessment and intervention strategies for delirious older adults, how much has been incorporated into practice is questionable as seventy percent of cases are not recognized by nurses (Ribby & Cox, 1996). Very little research has focused on how nurses currently care for the delirious hospitalized older adult. Understanding current nursing practice is an essential step to planning improved care.

CHAPTER 2

Nursing Care of Hospitalized Older Adults with Delirium

In this chapter, literature concerning nursing care of the older adult with delirium will be discussed and summarized. To present this literature in context, the first section will identify who is at risk for delirium, next a description of current best practices for hospitalized older adults is provided, followed by a description of current nurses' practice for this population. The chapter concludes with a review of what inhibits nurses from assessing and treating delirium.

Risk for Delirium in Acute Care

Older adults over the age of sixty-five are four times more likely to develop delirium than are their younger counterparts; those over the age of eighty are most at risk (Dolan, et al., 2000; Lindesey, et al., 1990). In hospitals, older adults who are over the age of eighty, cognitively impaired, and are severely ill are most vulnerable to developing delirium (Foreman, 1993; Inouye, 1998). Other risk factors include trauma or surgical procedures, with a 52 % risk of delirium postoperatively and up to a 78 % risk with orthopedic trauma (Espino, Jules-Bradley, Johnston, & Mouton, 1998; Inouye, 1998). Thus, intensive care units and surgical units, (especially thoracic surgery and orthopedic trauma) have significant numbers of delirious older adults (Inouye, 1998; Marcantonio, et al., 1998; Miller, 1996). Other risk factors are functional impairment, malnutrition, polypharmacy, visual and or hearing impairment, metabolic disturbances, pain, infection, and alcohol or psychoactive drug use or withdrawal (Ignatavucius, 1999; Chan & Brennan, 1999; Inouye, 1998; Espino, et al., 1998; Lipowski, 1990). Although delirium

has one or multiple physiological causes, it can be exacerbated by both psychological and environmental factors such as stress, immobilization, sleep deprivation, and sensory over or underload (Inouye, 1998; Lipowski, 1990; Martin, & Haynes, 2000; Rosen, 1994).

Causes of Delirium

Although the pathophysiology of delirium is not clearly understood, many causes have been identified. Inouye (1998) estimates that 40 % of delirium in the older adult is caused by medications. Of these cases, 85 % are attributed to anticholinergic medications and twenty nine percent to benzodiazapines (Inouye, 1998). The high rate of delirium from medications is thought to be due to an increased sensitivity to the effects of medications as a result of age related pharmacokinetic changes (Abraham, et al., 1999; Lindsey, et al., 1990). The second most common cause of delirium is an infectious process, most often respiratory or urinary tract infection (Espino, et al., 1998; Foreman, et al., 2000; Foreman, et al., 1999; Foreman, 1993). Other common causes are dehydration and electrolyte imbalance, especially in relation to potassium and sodium, and metabolic imbalances, especially endocrine and nutritional deficiencies (Chan & Brennan, 1999; Espino, et al., 1998; Foreman, et al., 2000; Foreman, et al., 1999; Foreman, et al., 1993; Lindsey, et al., 1990). Other causes can be hypoxia or acute cardiovascular problems such as myocardial infarction (MI), congestive heart failure (CHF), or cardiac arrhythmias, (Abraham, et al., 1999; Lipowski, 1990; Stone, et al., 1999).

Pathophysiology of Delirium

While the pathophysiology of delirium in older people is not clearly understood, several theories have been suggested. One such theory suggests that altered cerebral metabolism caused by a reduction in the mechanisms for cerebral oxidation disrupts

synaptic transmission between neurons causing the symptoms we know as delirium (Lindesay, et al., 1990; Rosen, 1994). Another theory suggests that change in neurochemical mechanisms or deficiency of one of the neurochemical precursors causes decreased synthesis of acetylcholine (Chan, & Brennan, 1999; Lindesay, et al.,1990; Rosen, 1994). Structurally there is evidence to suggest involvement of the cortical and subcortical areas of the brain, leading experts to theorize that delirium is a reaction to acute stress (Chan, et al., 1999; Rosen, 1994). Lindesay (1990) further describes the acute stress reaction, resulting in delirium due to age related weakness of stress resisting mechanisms in the brainstem and hypothalamus. Circulating catecholamines are also increased in stressed individuals, leading to increased cerebral metabolic demands, and thus, increased risk of delirium. Finally, Rosen (1994) and Lindesay (1990) suggest acute lesions in the right side of the brain may be responsible for delirium, since deficits in the right hemisphere of the brain are known to cause attentional impairment and decreased coherence of thought and action, all of which are characteristic of delirium.

Best Nursing Practice in Care of Older Adults at Risk for Delirium

Since the picture of delirium is complex and multifaceted, it is essential that clinical assessment is accurate, frequent, and prompt (Foreman, et al., 1999; Inouye, et al., 2001; Yeaw & Abbate, 1993). Clinical assessment that includes screening for cognitive impairment can detect acute changes and identify reversible elements (Lang, 2001; Sands, Phinney, & Katz, 2000). Due to their constant access to the hospitalized older adult, nurses are essential in assessing and managing delirium. Only when delirium has been identified, can treatment of the cause(s) and management of the behaviors be appropriately planned and executed.

Tools to Assess for Delirium

Nurses, who provide around the clock care, are in the most pivotal position to note changes in cognition and behavior that might signal the onset of delirium (Fick & Foreman, 2000; Inouye, et al., 2001; Krickbauy, Pearson, & Hamson, 2000). Experts identify many tools that could assist nurses in this task. Foreman (1996) suggested that the instrument should be chosen according to the purpose, whether it be screening for delirium, monitoring declining cognitive status over time, diagnosing of dementia, or a combination of these. Some of the more commonly reported tests are the Folstein Mini Mental State Exam (MMSE), Neecham Confusion Scale, and the Confusion Assessment Method (CAM).

Folstein's MMSE is a 10 minute test to assess short and long term memory, orientation, attention, calculation, registration, language, and praxis (Folstein, Folstein, & McHugh, 1975; Stone, et al., 1999). However, the MMSE is most useful to detect cognitive impairment associated with dementia, not as an assessment tool for delirium (Fick & Foreman, 2000; Rapp, et al., 2000). Considering that one of the cardinal signs of delirium is transient cognitive impairment, a MMSE used on a delirious older adult would most certainly yield a low score. A low score on a MMSE without the recognition that the older adult is delirious could lead to the erroneous conclusion that the older adult was demented and thus, the intervention strategies for a treatable condition would not be initiated, possibly leading to chronic confusion. The MMSE is useful in monitoring changes in cognitive function over time, however, it is not as sensitive to subtle cognitive changes exhibited in delirium (Insel & Badger, 2002; Sands, et al., 2000). Therefore, the Folstein MMSE is not recommended as a useful tool in screening for delirium.

The Neecham confusion scale consists of three sub-scales measuring information processing, behavior, and physiological control (Csokasy, 1999; Miller, et al.,1997; Neelon, Champagne, Carlson, & Funk, 1996; Neelon, Champagne, McConnell, Carlson, & Funk, 1992). The information processing scale includes attention or alertness, interpretive recognition, and orientation; the behavior scale measures appearance, motor control, and verbal skills; the physiologic scale measures vital signs, oxygen saturation, and urinary continence (Miller, et al., 1997) The Neecham test was designed to take about 8-10 minutes during the course of nursing care to assess a patent for delirium in a manner which decreases response burden on the older adult patient and makes is easy to re-administer as the patient's condition changes (Miller, et al., 1997). Nurses designed the Neecham test using number scores, to identify the presence of subtle cognitive changes which reveal older adults who are at risk for delirium, and to measure the degree of their severity that allows for monitoring changes in patient's degree of delirium (Rapp, et al., 2000). The Neecham has shown a sensitivity of 95%, a specificity of 78%, and a high test, retest reliability (Pearson r =.98) in identifying delirium (Neelon, et al., 1996). However, other researchers believe that although it has good validity and reliability, it does not differentiate between chronic and acute confusion (Schuurmans, Duursma, & Shortridge-Baggett, 2001). Although nurses are positive about the protocol, they also report concern about the time screening takes (Miller, et al., 1997; Schuurmans, et all., 2001).

The CAM is a semi-structured tool consisting of four questions, which can be incorporated into routine nursing assessments, to determine if the older adult has delirium or another type of cognitive impairment (Elie, et al., 2000; Inouye, et al., 2000; Inouye,

vanDyck, Alessi, Balkin, Siegal, & Horwitz, 1990). These questions determine if there is evidence of: (1) fluctuation in cognition; (2) attention difficulties; (3) disorganized or incoherent thinking; and (4) altered level of consciousness. The older adult is determined to be delirious if he or she shows evidence of both 1 and 2 and either 3 or 4. Often an associated symptom of altered sleep-wake cycle confirms the diagnosis of delirium. The CAM is based on the DSM IV diagnostic criteria for delirium and has been used as a gold standard for assessing delirium (Dolan, et al., 2000; Elie, et al., 2000; Inouye, 1998; Rosen, 1994). When evaluated in a research context, the CAM has been shown to have both sensitivity and specificity of more than 90%, and can be used in an algorithm format which is simple and easy to follow (Elie, et al., 2000; Ignatavicius, 1999).

Treating Delirium and Managing the Behaviors

Once delirium has been identified and immediate safety needs have been met, the first and most important intervention is to determine and treat the underlying medical condition(s) (Martin, & Haynes, 2000; Rosen, 1994). With treatment underway, general management principles that have been suggested since antiquity are still relevant today (Lipowski, 1990).

The literature identifies practical suggestions to enact the management principles. Throughout the ages, providing a relaxing environment for patients has been a method to support and manage delirium. Modern literature suggests modifying the environment, by minimizing clutter, and providing a quiet non-stimulating environment for hyperactive delirium or a stimulating environment for hypoactive delirium (Chan & Brennan, 1999).

Providing emotional support to the delirious older adult as a management principle can be accomplished in a variety of practical ways. Encouraging family support

of the patient, by sitting with the patient, and bringing in familiar objects, are simple yet effective strategies (Branski, 1998; Simon, et al., 1997; Stone, et al., 1999). Other emotionally supportive strategies are ensuring that patients wear their glasses and/or hearing aides so that they are better able to interact socially, and maintaining patients' usual routine (Branski, 1998; Foreman, et al., 1999; Simon, et al., 1997).

Alterations in the sleep/wake cycle are a characteristic of delirium that require management if the older adult is to get adequate rest. Although ensuring adequate sleep can be difficult in a busy hospital setting, the use of private rooms, and having family or nursing staff sit with and reassure delirious patients are helpful strategies to encourage rest (Panno, et al., 2000; Rogers & Gibson, 2002).

Using medication to manage an agitated delirious patient is a long-standing practice. While sedating an agitated patient can be a useful intervention, the older adult may have reduced renal or hepatic clearances leading to toxic effects (Segatore & Adams, 2001). Thus, experts suggest that when medicating older adults, one should "start low, go slow" giving doses as sparingly as possible (Panno, 2000; Rosen, 1994; Segatore & Adams, 2001). Other important medication interventions include ensuring adequate pain management, as pain can cause or aggravate delirium (Abraham, 2000). Still other practical strategies that prevent agitation are avoiding urinary and fecal retention (Stone, et al.,1999).

Ensuring adequate fluid electrolyte balance and meeting nutritional needs are important ways to manage delirium. The delirious older adult may need assistance with feeding to ensure that nutritional needs are being met (Covinsky, et al., 1998;Inouye, et

al., 2000), and to maintain adequate fluid electrolyte balance, intravenous (IV) fluids may be necessary.

Ensuring safety and protecting the patient from self-injury are also management strategies. Practical ways to prevent the older adult from injuring him or herself are to disguise necessary medical equipment, such as IV tubing, to prevent the patient from inadvertently discontinuing necessary treatment (Rosen, 1994; Simon, et al., 1997). An important strategy to manage safety is avoiding physical restraint, which in addition to further increasing agitation, can contribute to immobility and death (Rawsky, 1998; Segatore & Adams, 2001).

Our fast paced modern hospitals often contribute to or even cause delirium in older adults. To address the unique needs of older adults, the literature suggests acute care units especially for older adults or hospital wide "elder friendly" initiatives. These older adult friendly initiatives identify a biophysical approach to maintaining and promoting function in which decisions about care focus on the physical, cognitive and psychosocial aspects as opposed to the disease model of care that tends to predominate our hospitals (Covinsky, et al., 1998; Palmer, Landefeld, Dresvic, & Kowal, 1994; Landefeld, et al., 1993; Panno, Kolcaba, Holder, 2000). The biophysical model has four key components: (1) patient-centered care, (2) a prepared environment, (3) planning for discharge, and (4) medical review (Covinsky, et al, 1998). Patient centered care means daily assessments by nurses of the older adult's physical, cognitive, and psychosocial function, protocols based on these assessments to improve outcomes, and multidisciplinary teamwork (Covinsky, et al., 1998). To address functional care of the older adult, protocols are suggested to ensure that care is preventative and restorative by

encouraging people to walk to the bathroom and do as much of their activities of daily living as possible (Covinsky, et al., 1998). The prepared environment includes uncluttered hallways, calendars, clocks, and visitors to aid in socialization and decrease cognitive decline (Inouye, et al., 2000). Planning for discharge begins on admission and incorporates the family context. Medical care review is a daily review by a medical director to prevent complications of hospitalization (Covinsky, et al, 1998).

While most of the supportive management interventions are simple, they are not likely to occur unless the nurse recognizes delirium and is aware of the management interventions that will support the delirious older adult. Incorporating any of these strategies is more likely to occur if the caregiver has a positive attitude towards the older adult (Beck, 1998; Luisk, Williams, & Hsuing, 1995). Nurses with positive attitudes are more likely to promote activity and independence which are the restorative activities necessary to allow older adults to recover more quickly from their acute illness and which decreased their chance of developing delirium (Helmuth, 1995; Michota, 1995).

Current Nursing Practice Caring for Older Adults at Risk for Delirium

Even though suggested best practice guidelines exist for caring for and preventing delirium in the hospitalized older adult, there is little in the literature identifying the current nursing practice of managing delirious hospitalized older adults. Due to the high numbers of delirious older adults in hospitals, it is clearly evident that nurses are presently providing some type of care for this population.

Assessing Delirium

Nurses have varying success at diagnosing delirium. Inouye (2001) discovered that nurses most frequently missed the diagnosis of delirium with older adults who had

hypoactive delirium, were eighty years and older, had vision impairment, and dementia. Nurses report not even bothering to ask questions of demented patients who are most at risk of delirium (Fick, et al, 2000). Inouye (2001) identified that even though nurses were aware of signs of delirium, they reported delirium much less frequently than did researchers.

In the acute care hospital setting, nurses use patients' behaviors as an indication of cognitive function, mistaking compliance or lack of aggression as an indicator of intact cognition (Inouye, 2001) and labeling an older adult confused if they observe behavior that is aggressive or not congruent with the hospital circumstances (Chan & Brennan, 1999; Ribby & Cox, 1996; Rosen, 1994; Yeaw, et al., 1993). Fick and Foreman (2000) identified that nurses do not use a formal cognitive screening with delirious older adults and only minimally note cognitive impairment in charts, describing it as "confusion".

Although in practice nurses do not use a formal assessment tool, they do anticipate that certain groups of patients will be "confused." In an exploratory study of the experiences of ten nurses caring for older adult orthopedic patients, Rogers and Gibson (2002) identified that nurses assess for the possibility of delirium based on predisposing factors and behaviors. Nurses in Rogers and Gibson's (2002) study identified predisposing risk factors for delirium, such as a diagnosis of a hip fracture, an underlying dementia, and/or hospital related events such as surgery, relocation, and medications. Behaviors of extreme agitation and hyperactive psychomotor activity indicate to nurses that the patient may have delirium (Rogers & Gibson, 2002).

Fick and Foreman (2000) found that nurses rely on older adults' orientation to time, person, and place as a marker for changes in cognition, even though it is one the

least sensitive signs of cognitive changes. In my clinical experience, a disoriented older adult is often described as "confused." Rogers and Gibson (2002) found that once nurses identified that the patient's confusion might be delirium, they looked at laboratory values, oxygen saturation, medications, infections, pain, or possible cerebral infarct to determine possible causes.

Managing Care of Delirious Older Adults

Rogers and Gibson (2002) exploratory study of ten orthopedic nurses' experiences caring for delirious older adults discovered a variety of ways that nurses managed care of this population. Nurses used constant observation to ensure safety, eliminating underlying causes, caring interventions, reorientation strategies, and strategies such as sitters, medications, and restraints to manage delirious patients (Rogers & Gibson, 2002). In addition, nurses moved delirious patients near the nursing station for closer observation, and investigated underlying causes such as the patient being cold, hungry, or in pain. Nurses identified the importance of a gentle, calm approach, incorporating orientation information into conversation, as well as using the patient's hearing aids and glasses to aid in reorienting the older adult (Rogers & Gibson, 2002). Nurses also discussed the importance of being flexible about giving nursing care at a time when the delirious patient is able to receive it (Rogers & Gibson, 2002).

Nurses reported that caring for delirious older adults was time-consuming, frustrating, challenging, and exhausting (Rogers & Gibson, 2002). Caring for a delirious older adult would noticeably increase the nurses' workload, leading to decreased self-esteem when they were unable to finish their work due to the added demands of caring for a delirious older adult (Rogers & Gibson, 2002). The increased workload was

partially caused from the time needed, as they puzzled over what intervention would be most useful. Nurses also can be physically threatened when caring for this population. Of the nurses Rogers and Gibson (2002) studied, 9 out of 10 nurses had experienced physical aggression from delirious older adults.

What Inhibits Nurses from Assessing and Treating Delirium

Although there is a paucity of literature describing current nursing practice caring for hospitalized older adults, there is evidence identifying some of the barriers to using best practices. These include limited knowledge of geriatrics, system issues and ageism.

Limited Knowledge

"Development of gerontological nursing education in Canada has not kept pace with the need" (Baumbush & Goldenberg, 2000, p.12). This is clearly evident also in the United States (US), where 75% of the nurses Fick and Foreman (2000) interviewed didn't know the difference between delirium and dementia. It is rare for a nurse in an acute hospital to have undergone post registration education in older adult care, (Tierney, Lewis, & Vallis, 1998) and yet it is estimated that by the year 2020, 75 % of nurses' time will be spent with older adults (Baumbusch & Goldenberg, 2000).

Gerontology as a nursing specialty has been plagued at least in part by a perception that caring for older adults requires less knowledge and clinical skill than other specialties, (Baumbasch & Goldenberg, 2000) and it was not until 1983 that the first Canadian Gerontological Nursing conference was held (Hirst, King, & Church, 1996).

Although acute confusion has been documented since Hippocrates, delirium was not recognized as a syndrome, and recorded in medical literature until 1980 (Lipowski, 1990). It is reasonable to assume that, if delirium was not clearly identified in the literature until 1980, it would not have been emphasized in nursing education before then. However, even though students need to have theory and clinical practice about the unique needs of older adults, of which delirium is one of the "geriatric giants", it is still inadequately addressed in nursing curricula (Baumbusch & Andrusyszyn, 2002; Baumbush & Goldenberg, 2000; Joy, Carter, Smitt, 2000; Rogers & Gibson, 2002). Baumbausch and Andrusyszyn's (2002) survey of Canadian nursing programs, revealed that less than ten percent of students' clinical hours are spent in a gerontological setting, and less than six percent of faculty have some background in gerontology. Although, most of the nursing programs surveyed had some degree of integrated gerontological content and offered separate gerontological nursing courses, without both clinical and theoretical focus related to the care of older adults, students may not develop the necessary skills to nurse this population (Baumbusch & Andrusyszyn, 2002).

System Issues

Care of hospitalized older adults is influenced by social and political mandates for cost containment (Campbell, 2000; Campbell, 1994; Kresvic, et al., 1998; Varcoe & Rodney, 2002). With recent health care reforms, patients are leaving hospitals earlier (Campbell, 2000; Michota, 1995; Moses, 1998; Nichols, 1998; Varcoe & Rodney, 2002). The decreased lengths of hospital stay means that the average nursing care needs of patients in the hospital have increased, thus leading to a direct increase in nurses' workload (McKiel, 2002; Moses 1998; Varcoe & Rodney, 2002). The current hospital

environment with its increased workload and competing patient care demands, challenges nurses' abilities to detect and manage delirium in the older adult population. This increased workload means nurses have less time for participatory care (McKiel, 2002), and less time to interact with patients, making assessing for delirium difficult if not impossible. Based on their observations, Fink and Foreman (2000) argued that assessments of cognition were impossible in the short periods of time that nurses spent with delirious older adults.

Increased workload means that nurses must prioritize their time to care first for those they perceive as most acute, leaving little time to focus on the restorative needs of older adults, discussed earlier as supportive management principles for managing and preventing delirium (Michota, 1995; Rankin 2002; Rogers & Gibson, 2002;). Nurses do not have time to "think through" their care (Varcoe & Rodney, 2002) putting older adults who are experiencing delirium at risk of being treated inappropriately, or being interpreted as demented and thus not requiring acute care. If nurses perceive that the older adult doesn't need acute care, there is a danger that the older adult will be labeled as "alternative level of care", and then treated as a "bed blocker" (Michota, 1995; Rankin, 2002). The term alternative level of care (ALC) is given to patients who no longer require acute care but continue to occupy a bed (Rankin, 2002). In my clinical experience, if nurses identify a patient in acute care as no longer acute, they are less likely to look for, or pick up on subtle cues that indicate the older adult is delirious, and not just demented. The workload demands of caring for alternative level of care older adults plus acutely ill older adults are significant. Nurses are challenged to meet even the most basic needs of older adults, often resorting to physically restraining delirious older

adults (Varcoe & Rodney, 2002). The irony is that physical restraint may contribute to escalation of the delirium, thus consuming even more of the nurses' limited time.

In meeting the needs of older adults, nurses are affected by the organizational climate, styles of supervisors, and other environment factors such as the way nursing service is delivered (Miller, et al., 1997). Current nursing service delivery models do not reflect the need of older adults and may contribute to functional decline of older adults by inhibiting successful strategies to manage delirium (Kresevic, Counsell, Covinsky, Palmer, Landefeld, Holder, & Beeler, 1998; Miller, 1998; Palmer, et al., 1994). In the last ten years staff mixes have changed, replacing RN's with practical nurses or care aides, and decreasing nurses' time and professional resources, all of which are necessary to care for the older adult (Campbell, 2000; Varcoe & Rodney, 2002). The bio-medical model, which sees old age as a pathological process, dominates nursing practice in hospitals, so that nurses do not necessarily see assessing for cognition as a priority (Hunt, 1997; Yeaw & Abbate, 1989). Miller (1997) suggested that it is possible to improve nursing assessments of delirium through an organizational focus on older adult care. To develop a focus of older adult care, an organization will need to identify systems that support nurses and those that interfere with caring for the older adult. Although much has been written about how nurses "should" look after older adults at risk for delirium, or how they care for this population in elder friendly programs, there is a dearth of literature identifying how nurses care for delirious older adults in settings without the benefit of these resources (Rogers & Gibson, 2002). Therefore, the factors that inhibit nurses from successfully enacting strategies to manage delirium have not been identified.

Ageism

Attitudes underlie individuals' ability to understand, organize and clarify the world around them (Lookinland & Anson, 1995). Thus, nurses are influenced by attitudes reflected in society as they prioritize, assess, and choose interventions for the older adult population (Akid, 2001; Bernard, 1998; Helmuth, 1995; Horowitz, Savino, & Krauss, 1999; Lookinland & Anson, 1995; Palmore, 2001). Ageism, reflected in negative attitudes towards older adults, is prevalent in society both overtly and subtly (Kitchner, 1999). Thus, it is likely that negative attitudes affect nurses as they care or plan care for older adults at risk for delirium (Palmore, 2001). For example, negative attitudes can be exhibited in the claim that age and chronic confusion are synonymous, thus interfering with a willingness to assess for acute confusion (Fick & Foreman, 2000).

Conclusion

The picture of delirium in the hospitalized older adult can be difficult to focus due to the complex, multifaceted nature of the problem (Inouye, 1998; Rosen, 1994). In order to effectively plan change towards what the literature describes as best practice, one first must identify current nursing practice: appropriate practices to keep, practices that must change, and the barriers to change. Trying to implement change without understanding the issues surrounding nurses' care of older adults is most likely to fall short. Since nurses' role in caring for patients at risk for delirium is so crucial, until we can understand nurses' experience with this population, attempts to improve care will be at best a shot in the dark.

CHAPTER 3

Research Method

As identified in the preceding literature review, much has been written suggesting best practices for assessing and managing delirium, but little has described current nursing practices with older adults at risk for delirium. To explore a phenomenon where knowledge is lacking, a qualitative method would be the appropriate research approach (Guba & Lincoln, 1994). Qualitative research allows for "exploring the depth, richness, and complexity inherent in phenomena" (Burns & Grove, 1997, p.67). Also, in qualitative research, the researcher examines the data for patterns and relationships that might inductively explain the data (Morse & Field, 1995). Furthermore, narrative enquiry is a method of collecting data for a qualitative study that can explore how nurses care for older adults at risk for delirium.

Why Narrative Enquiry?

Qualitative research is a useful method to bring the unknown into view (Morse & Field, 1995). Additionally, narrative enquiry is a qualitative method of gathering information, where participants tell their stories. People naturally tell stories that make their experience coherent by communicating the inner thoughts and decisions in the individual's lived experience (Lieblich, Tuval-Mashiach, Zilber, 1998). Sometimes, through the telling of an experience, the storyteller more clearly understands the meanings of the event being related (Lieblich, et al., 1998). Thus, by the language that nurses use to relate their clinical stories; the researcher can get a glimpse of the context of the culture and social world in which they practice. Since the context of culture affects

the knowledge, beliefs, and actions of individuals, its understanding is also an important part of the research.

Nurses, in caring for older adults in a health care culture, use a specific language in discussing assessments, plans, and actions. Therefore, the way in which nurses' care for delirious older adult patients is intricately affected by both language and culture. Nursing is part of a distinct culture that has values, meaning, language, and practices surrounding the care of older adults (Stone, et al., 1999). In any culture, people usually speak in a language that categorizes and gives meaning to the ideas, values, and systems around them (Spradley & McCurdy, 1972). By telling stories, the use of everyday language is encouraged as a means to access the participants' experience, complete with multiple meanings, ambiguities, and nuances (Benner, Tanner, & Cheslea, 1996). By telling their clinical stories about caring for older adults at risk for delirium, nurses can provide data informing our knowledge of their practices: what they observe, how they make decisions about nursing interventions, and the context in which these activities occur. Therefore narrative enquiry, which allows nurses to use language in telling their stories, is an appropriate choice for researching this phenomenon.

Using a narrative method of data collection, (by having nurses tell their stories), allows the researcher to obtain information about the question, of how nurses care for older adults at risk for delirium. Content analysis of the data, which is part of a narrative research method, can illuminate some of nurses' actions in caring for this population (Lieblich, et al., 1998). However, to more fully understand why nurses choose the interventions they do, a more in-depth thematic analysis is necessary (Morse, et al.,1995).

Assumptions

This study was based on the following assumptions of how nurses attribute meaning and respond to the conditions of older adults.

1) Nurses share practices and an understanding of nursing culture.
2) The personal backgrounds and experiences of nurses with older adults vary.
3) The hospital context, which includes culture, management, resources, and values, affects nurses' care of older adults.

Sample

Setting

The study was conducted in a small regional hospital, of approximately 241 beds, located in a region with one of the highest percentage of older adults in British Columbia. Research identifying best practices for the care of hospitalized older adults has been generally conducted in large teaching hospitals where nurses have more resources than would be available to them in smaller regional hospitals. In addition, the culture of large teaching hospitals tends to be more academically focused than in smaller regional settings. Since a large number of older adults live in smaller centers and are cared for in smaller regional hospitals, it is important to understand how to best care for this population of patients where fewer resources are available. The best practice guidelines should be applicable and realistic for these smaller settings, as well as the larger teaching centers.

This study included nurses who worked on medical and/or surgical units. Medical units, with complex medical patients, have a high incidence of delirious older adults, and

surgical units report 50 percent of older adults experience delirium post-operatively (Inouye, 1998; Marcantonie, et al., 1998; Miller, 1996). This particular medical unit also had palliative patients, which is another population of older adults at high risk for delirium (Abraham, 2000).

Study sampling

The volunteers were a convenience sample of 12 Registered Nurses (RN), who were on medical and/or surgical units. The sample included nine general duty RN's from a population of 40 nurses employed on the two units and three from the team leader/manager/educator group. The sample of 12 participants for this study was adequate in number to achieve a degree of representation. As a form of qualitative research, narrative inquiry typically has a small sample group that yields a rich source of data (Lieblich, Tuval-Mashiach, & Zilber, 1998) Thus, it was possible to glean a significant richness of data from interviewing nine general duty nurses and three from the manager group. The team leader/manager/educator group was included to gain a broader perspective of the contextual factors that may be affecting the nurses' care.

Sample Characteristics

The nurses who were interviewed ranged in age from 32 to 61 (mean of 48) years. Years of nursing experience ranged from 6 to 43 years (mean of 18.5) years. The education of nurses ranged from a diploma in nursing to a Masters degree. Seven of the nurses had a diploma in nursing (58% of the sample), four had a degree (33% of the sample), and one nurse had a Masters degree. The majority of nurses in British Columbia are between the ages of 40 to 59 (64%), and 67% have a diploma in nursing, 29% a degree (Ottem, telephone conversation August 25, 2004). Thus the sample's

demographics is representative of British Columbia nurses. Nurses in this study had worked in the setting from 6 months to over 15 years. Thus, varied perspectives of the hospital context were included in their stories. This sample is broad enough to illustrate the differences and commonalities of how "typical" nurses care for older adults at risk for delirium, as well as other influencing factors.

Gaining Access and Obtaining Consent

Access was obtained formally through the Health Authority and informally through the researcher's professional contacts with the nursing leadership in the hospital. Posters were displayed on the units to explain the study and to recruit informants. The researcher was available on the unit frequently to informally explain the study and answer questions from nurses. Team leaders on both units assisted in the recruiting process by answering questions from nurses, and inviting the researcher to talk to potential participants. Finally, an information letter and a copy of the consent was put in the nurses' mailbox and made available in the staff room.

Participants volunteered to their team leader or to the researcher, in person or by telephone. Participants were asked to read the information letter and the copy of the consent that had been circulated prior to meeting with the researcher. When participants indicated their willingness to be interviewed, I called, asked if there were any questions about the study, and arranged a time and place for the interview. At the time of the interview, participants were given another opportunity to ask questions, and then were asked to read and sign the consent.

Ethical Considerations

Several strategies were used to ensure that ethical issues were considered and addressed prior to the start of the study. Approval was obtained from the ethics committee at University of British Columbia (UBC), Vancouver Island Health Authority (VIHA), and the units of the regional hospital selected for the study. Informed consent was obtained from participants prior to the interviews. To ensure confidentiality and anonymity for the participants, all data that was collected during interviews was kept in a locked file. Fictitious names were used and patient and participant identifiers were also removed from the reported data to preserve anonymity. In addition, informants were not obliged to participate and could withdraw at any time.

Data Collection

Interviews

Each nurse was interviewed once for approximately one and a half hours, at a location of their choosing. Typically, this was at the participant's home, though other locations included the participant's office, the researcher's home, a coffee shop, and a meeting room at the hospital. All interviews were audio-recorded and transcribed, with the deletion of any patient and participant identifiers. The audio-tapes and transcribed data were kept in a locked file drawer.

Nurses' familiarity with a situation could lead to a decreased sense of awareness for the complexity of the context in caring for hospitalized older adults. Therefore, to enhance analysis of the care context, nurses were encouraged to explain and give details about possible interpretations of a situation, the circumstances of the unit at the time,

possible interventions that were considered, and a description of the actions taken. These details also included features about the physical environment, resources on hand, and activities of the unit, before, after, and during the particular incident that was of interest (Benner, et a., 1996). Questions were asked such as: Was this a usual workload? Were there many critical ill patients at the time? What were the other demands to your time and energy at that time? What types of resources in terms of people, or equipment were available to you? Refer to Appendix A for further research questions.

Nurses were encouraged to talk without interruptions, so that they could express aspects that they felt were relevant to the topic (Morse & Field, 1995). In listening to the nurses tell their stories, I listened to the silences, contradictions, and the things left unspoken (Poirer & Ayres, 1997). In being alert to these features, I could ask additional questions and thus tease out the details from complicated situations. Some of the questions were asked to understand the thinking processes used by the nurses when choosing interventions in caring for older adults at risk for delirium. For example, questions included: What were you thinking about when you observed the older adult in that situation? How did you know the person was confused? Why did you choose that intervention, in that particular situation? How did you know what to do?

Journaling

I kept a written journal to record fieldnotes about observations and interpretations that I made during the interviews. Morse (1995) suggests that recording ideas about the relationships seen in the data can assist in later analysis. I recorded salient points and the thoughts that occurred to me while I was conducting the study. I also included the context and as many details as possible to ensure that the background for my ideas were

clear. Also, I added reflections about my past and current experiences with regards to the nurses who are caring for delirious older adults, which ensured that reflexivity was incorporated into the design of the study (Hammersley & Atkinson, 1995).

Data Analysis

To analyze the data, both content and thematic analyses were employed (Lieblich, et al., 1998). This process began by reviewing the first four interviews, being mindful of the research question, and being open to learning from the participants. This meant looking for the kinds of actions that nurses practiced in caring for hospitalized older adults at risk for delirium, as well as seeing how they solved the problems, and what factors in the hospital context affected their decision-making. After reading and analyzing the first interviews, common nursing concerns and strategies were identified. In subsequent interviews, I asked the other participants about these concerns and strategies in the hope to have them clarified.

As the interviews were completed, the data was transcribed within a few days, and the transcripts were read carefully to answer questions for the content analysis, to learn what strategies nurses use to assess, prevent, and treat delirium. Data were highlighted with different colors according to the different aspects of care. Next, salient examples from the interviews for each aspect of care were compiled.

Interview transcripts were then re-read to determine what the nurses were trying to tell me about the issues, what was going on, and what was important? In thinking about this second part of the analysis, preliminary ideas about the major themes were identified. At this point, a committee meeting was held to discuss the salient examples from the content analysis and to use the preliminary themes in deepening the analysis.

To explore the context of these themes and to identify examples in the "voice" of the participants, a circular practice of re-reading the patterns was employed (Lieblich, et al., 1998). Analysis continued as themes were shared with my supervisor, who identified salient points and asked further refining questions about how these concepts might fit into a particular theme. The findings were also shared with a participant who confirmed that the findings were representative of the voice of nurses and the reality of practice. An important last step of the analysis was the recontextualizing of the interpretation and implications of the findings, by comparing them to other studies (Morse & Field, 1995). The recontextualizing revealed that the findings were likely common concerns in nursing, and if a similar study was done at another similar regional hospital setting, similar results would likely emerge as being significant and prevalent.

Issues of Rigor

The trustworthiness of the interpretation of this study was supported by using verbatim quotes of the nurses to confirm the reported themes, connecting the narrative accounts to the participants, and by the description of decisions made from the data interpretation (Bottorff, Johnson, Irwin, & Rather, 2000). From Guba and Lincoln's (1981) four criteria of trustworthiness, the rigor of this study can be addressed. These criteria are: credibility, transferability, dependability, and confirmability.

Credibility

Credibility is used to ensure internal validity (Morse & Field, 1995). Simply, it is to ensure that the participant's experience is represented as truthfully as possible. Guba and Lincoln (1981) suggest that using triangulation, and debriefing with peers and

participants, can enhance credibility. Triangulation is using one or more methods or sources to draw conclusions (Morse & Field, 1995) and, in this study, was facilitated by the use of interviews, fieldnotes, and the validation of my interpretation of data with a participant and the research committee. Fieldnotes included the thoughts and questions that occurred to the researcher during or immediately following the interview. These notes aided in analysis, and shaped the questions for the next interview, thus allowing significant data to emerge.

Transferability

Transferability or applicability refers to whether or not the findings of the research can be replicated in other settings (Morse & Field, 1995). To enhance the transferability, variables in the interviews, such as setting, non-verbal communication, and the presence of other parties during the interview (i.e. a participant's sister) were clearly reflected upon and accounted for in the journal notes. Therefore, any influence these variables may have contributed to the data, could be replicated, or explained for subsequent studies.

Dependability

The study is dependable if another researcher can follow the "decision trail" and replicate the study to obtain similar findings (Morse & Field, 1995). Sandelowski (1986) also refers to dependability as being the audibility or consistency of the study. Accurate fieldnotes were kept to aid others in following how decisions were made. Discussions with the researcher's supervisor about subsequent steps to take in the analysis were also journalled, and all drafts of the analysis were kept. These measures allow for a greater possibility of replicating this study, and thus ensure its dependability.

Confirmability

Confirmability, also called neutrality, is establishing the freedom from bias in both the product and the process of the research (Morse & Field, 1985). This was achieved by keeping a reflective journal and using consultations with the researcher's committee members to discuss personal biases.

CHAPTER 4

Findings

The purpose of this study was to understand nurses' experiences caring for hospitalized older adults at risk for delirium. Nurses described how they assess cognition and some of the strategies they use to manage older adults with delirium. They also described the challenges of working with this population in a hospital setting that is geared for efficiency in caring for the younger patient. In this chapter, the findings are presented, first, by describing how nurses care for this population; and second, by reflecting on the themes of (1) frustration resulting from limited time; (2) safety at all costs; and (3) beliefs about the old.

How Nurses Care for Older Adults at Risk for Delirium

In analyzing the data to answer the research question, three major activities emerged through which nurses care for older adults at risk for delirium. Content analysis was used to discover the categories of: (1) *Taking a Quick Look;* (2) *Keeping an Eye on Them;* and (3) *Controlling the Situation.* These three categories will be described and supported with the data.

Taking a Quick Look

Most of the nurses discussed the importance of assessing older adults early in their shift, to determine which patients might become delirious later, and thus, might occupy more of their limited time. The initial assessments mostly consisted of nurses asking subtle questions to determine the older adult's orientation. Some examples of the typical questions used by the nurses are summed up in the following quotation.

> How are you feeling, how was your day.... if I'm kind of wondering, I'll say where are you from?.....if they're confused, ... they can't remember. (RN #5)

Nurses formed an impression of older adults' cognitive state based on patients' verbal responses to these types of questions. In addition, nurses observed the appropriateness of the patient's behaviors. The following example describes the physical cues that nurses looked at in determining the cognitive status of an older adult:

> I tend to take a quick look at how they are. Are they trying to take their gown off? Are they playing and knotting the IV tubing? (RN #8)

This nurse's defining statement of "a quick look" captures the essence of how the nurses described how they completed their assessments, within the context of the limited time available to them. While these particular cues may seem obvious, experienced nurses also identified more subtle physical cues about the older adult's behavior that led them to wonder about a patient's cognitive status. As an example:

> ...Not looking me in the eye...busy, little too busy for my liking.... going to his locker a little too quickly, and not taking his IV pole (RN #5).

This example highlights how the subtle cues can reveal something to the nurse about the patient's cognition. This nurse was describing her expert skill at conducting a quick assessment, a skill she may have developed, in part, as a survival method in her fast-paced work environment, where multiple priorities competed for her attention. Nurses identified that they could assess older adults in the brief moments available, but might be unable to determine delirium in a person who was not overtly exhibiting delirious behaviors. Thus, hypoactive delirium could easily be overlooked by nurses pressed for time.

Although nurses could quickly assess cognition, they also spoke of needing more time to determine if the patient's confusion was an ongoing problem or not. Once nurses identified the older adult was "confused," the next step commonly taken was to determine if the confusion was new for this particular patient. To assist in assessing the patient's current state of confusion, nurses would often question their co-workers or the patient's family. One nurse was typical when she said:

> You ... ask around .... if anybody else had felt that person was confused.... is it new? .....If a family member is there I might say, ... do you find you mom a little different, or a little confused or anything? (RN #4).

This nurse identified some ways by which nurses gathered information to assist in determining an older adult's cognitive state. As described earlier, first nurses asked subtle questions and observed behavior. Next, they gathered collateral information from family and co-workers to determine if the confusion they observed was new or long-standing. After determining that the confusion was new, some of the nurses described conducting a more extensive physical assessment and review of the chart to assist them in determining the cause.

> Looking for electrolyte imbalance. That can throw off the elderly easily. Infection, so white count, hemoglobin as well, low blood., UTI, constipation can cause them confusion (RN #5)

This nurse mentioned looking for possible reasons for the older adult's delirium as part of her assessment. Only a few of the nurses extensively described looking at a variety of options to assess possible causes of delirium in the older adult. Most described an assessment that was limited to asking the patient subtle questions, observing behaviors, and asking family members or other nurses about previous cognitive status, all as they observed "on the fly".

Keeping an Eye on Them

Nurses spoke about the importance of monitoring the older adults frequently throughout their shift in order to prevent escalation of confused behaviors. To achieve constant monitoring, nurses would restrain patients in geriatric chairs in the hallway during the day, and then move their beds to the nursing station at night. Nurses explained that this monitoring was also a strategy to reassure the older adults that everything was okay, thus, preventing any escalation of delirium that might occur if the patients felt anxious or confused about the context of their surroundings. One nurse described the situation:

> When you have confused patients, we would spend the whole shift going back and forth to each patient, just reassuring them....to try and keep them from escalating and from getting too confused and out of control (RN #6).

This nurse's vivid description creates an image of what the constant monitoring of an older adult might look like. If nurses must constantly go back and forth to each of their older adult patients to prevent escalating behaviors, one can understand why they felt that caring for older adults was time-consuming. To spend so much time and energy in these tasks, the nurses must have been strongly motivated to prevent escalation and to keep their patients safe.

In the interviews, the nurses often referred to monitoring older adults in the area around the central desk, which they sometimes called "the executive suite." (RN #8)

> Often times, we bring people to the desk at night, because we don't want them to break a hip, or, we just want to keep an eye on them that they're safe, that well, mainly falls (RN #4).

This nurse's description sums up the concerns for safety that were identified frequently by other nurses. Moreover, it highlights the nurses' concerns that patients may

fall and break a hip, which would require them to be monitored at all times. Use of the term "executive suite" illustrates the power that nurses wield in the care of vulnerable people. The place near the nurses' desk is, "for the executives," or those requiring special attention. Nevertheless, it could be questioned if real "executives" would desire to sleep in an open area with little to no privacy. "Keeping an eye" on the older patient was a way for nurses to determine when and if they needed to intervene to "settle them down"(RN# 4)

Controlling the Situation

To maintain constant monitoring of the older adult patient's cognition and behavior, nurses often turned to restraints. They also talked about using physical and pharmacological restraints for a variety of other reasons, which share an underlying theme of managing or controlling the work situation. These reasons included ensuring that patients received their prescribed therapy, preventing potential injury, controlling a situation involving a potentially escalating behavior, or improving time management while the nurse worked with other patients. In the interviews, much discussion revolved around the pros and cons of using these strategies, with nurses describing restraints as being "the last thing we…do." (RN #4) The nurses also indicated that they experienced emotional discomfort when having to resort to using restraints. Moreover, when they admitted to occasionally needing to use these measures, the nurses typically spoke with downcast eyes.

The use of physical and pharmacological restraints were discussed as primarily a method to manage behavior that nurses viewed as being a threat to the safety of the

patient or to others. The strategy was also used to keep the nurses physically safe, as many nurses reported patients who would swing violently or hit them:

> Sometimes they get violent.....and so we've gone more with medical [pharmacological] restraints (RN #3).

This quotation illuminates the urgency of a potential physical threat that was constantly underlying the concerns of nurses. To protect themselves and others, nurses used pharmacological restraints for the violent patient. Nurses stated that their decisions to use pharmacological restraints were based on the people resources available to them at the moment:

> If somebody could sit with them,...It makes a big difference. You don't have to sedate them as much... (RN #3)

This nurse, as did many others, used the euphemism, 'sedation' when referring to pharmacological restraint. This comment alludes to the fact that nurses sometimes used sedation as a proxy for the presence of a nurse, due to the limited number of available staff members. It also reveals potential consequences from the tensions due to the time needed for care of older adults in a fast-paced hospital environment.

Despite the commonly used sedation of older patients, more than half of the nurses mentioned that they had seen detrimental effects. At times, this kind of restraint interfered with the recovery of the patient from an underlying illness:

> We sedate them and then, they're not getting out of bed, they're not eating, they're not drinking; now they're really sick (RN #6).

This description of iatrogenic changes caused by over-sedation was described by several of the nurses. Most reported their concern that the over-use of sedation had potentially harmful affects for the older adult patients.

Despite the potential detrimental effects of sedation, many nurses seemed to view pharmacological restraints as a more favorable alternative to physical restraints. A possible explanation for this could be that nurses associated giving medication with helping people. The following nurse summed up the sentiment of many of the nurses:

> We do medicate.....hoping to settle someone down. The last thing we ....do, and we hate to is use the restraints (RN #4).

This nurse identified that nurses see medication as something to settle or sedate the patient, as opposed to restraining. Thus, physical restraints are viewed as being less beneficial than pharmacological restraints.

Despite their aversion to using restraints, nurses mentioned using a variety of physical restraint devices, which included vests, pinels, and wrist restraints, as well as geriatric chairs with a table. The nurses gave several reasons for using the physical restraints, such as patients trying to crawl out of bed, or removing their intravenous or surgical clips. Although most of the nurses referred to a common philosophy that they should try not to use restraints, at the same time, they also admitted to using them. Nurses also consistently identified the inadequate supply of geriatric chairs with tables or other physical restraints as being a problem; even though they reported that physical restraint of the older adult patient was used as a last resort, they also wanted to have more resources such as geriatric chairs with tables to assist in the restraints. Frequently, nurses mentioned that older adults with delirium were managed by putting them in geriatric chairs with tables. Thus, in practice, nurses seemed to use restraints to a greater degree than what was reported. Insufficient data were available to explore the actual frequency of these activities.

Nurses identified that, among the staff, a wide variety of philosophies existed about when to best use pharmacological or physical restraints. Some nurses preferred to use sedation, others preferred using physical rather than pharmacological restraints, and still others preferred to avoid using either type of restraint, and instead, preferred to monitor closely. A rationale that was sometimes given by nurses for bringing patients to the nursing station at night was that it decreased the need to use sedation or physical restraints:

> If you can bring them out,..... And keep an eye on them, and if... hopefully, they'll sleep well and not need restraints (RN #11).

This nurse described a typical rationale nurses gave as a way of mediating between limited time, maintaining safety for older adults, and avoiding the use of restraints. By bringing the patient to the nursing station, the nurse could complete other work and still assess and or monitor the older adult.

Thematic Analysis of How Nurses Care for Older Adults

Although the preceding content analysis is useful for describing strategies nurses employ when caring for older adults with delirium, understanding why they make the choices they do provides the context for understanding the significance of nurses' activities with this population. Following is a thematic analysis of the data revealing three major themes related to why nurses use these particular strategies: (1) *Frustration Resulting from Limited Time;* (2) *Safety at all Costs;* and (3) *Beliefs about the Old.*

Frustration Resulting from Limited Time

Nurses consistently talked about their frustration due to the lack of available time to give optimal care to all of their patients. They felt they must constantly strive to

balance their available time with the care needs of all patients who are in their care. This lack of time was related to competing demands and the nurses' lack of knowledge about how to be efficient with care of older adults in a system geared for younger patients.

Competing Demands

Nurses described a work environment that was fast–paced and demanding of their time. The pace was rapid due to the numbers and variety of acutely ill patients for which each nurse was responsible. In addition to the older adults with delirium, nurses' cared for patients who had just returned from surgery, patients who were experiencing chest pain, or patients with a variety of other acute conditions. The types of patients for whom nurses cared were also complex, with more than one acute or chronic health challenge. To effectively care for such a wide range of patient care needs, these nurses required an extensive knowledge-base about many medical conditions, and needed to interact in a meaningful way with a spectrum of populations, and exercise skill in carrying out complex nursing actions. One nurse articulated the complexity of these competing demands as being more than simply not having enough time:

> not only competing demands for time, but that whole notion of switching, switching gears of how you are as a nurse (RN #10).

To care for the spectrum of patients, nurses needed to switch their priorities, speed, language, and assessment strategies, while going from one patient to the next. Nurses identified that caring for an older adult with, or at risk for, delirium took much of their limited time. Time was needed to assess cognition, deliver care, and manage aggressive behaviors of the delirious older adult.

Lack of Knowledge about What to Do

One nurse identified that the combination of scarce time and limited information about how to approach the care of an older adult with delirium, was causing frustration felt by many nurses when caring for this population. She identified that nurses had the information at hand and knew how to proceed when dealing with congestive failure, or chest pain; however, they were less clear about how to proceed with an older adult with delirium. The nurses were unsure about what to do and did not have access to information such as best practice protocols, thus causing them to spend more time strategizing actions, or ultimately, enacting interventions that may be ineffective.

Not only did the nurses mention not having a clear idea about how to proceed in urgent situations, they reported that their knowledge about care of the older adult was largely obtained through personal experience and by watching other nurses. "I'm learning about the elderly...by watching others" (RN # 7). Some of the experienced nurses described instances where a younger nurse overlooked the escalation of delirium in an older adult. These instances reminded the experienced nurses that they too had responded similarly when they were novice to the practice.

This method of knowledge acquisition was time-consuming. The experienced nurses said that they learned to respond to situations with older adults with delirium slowly over time. They also identified differences between how they once responded and how they now respond. One nurse mentioned that, for a new nurse, much time and energy is needed to do the task-related activities.

> When I was a beginning nurse....it took so much of your energy just to get the basics done. And now...I've got more time to really look at the patient.....why are they confused? (RN # 6)

Only after basic activities are mastered does the new nurse have the time to look holistically at the needs of the older adult patient. Given the current time constraints in hospitals, looking holistically at a patient is a challenge even for nurses with extensive knowledge about older adults, or for those with many experiences caring for this population. Based on the nurses' descriptions, experienced nurses felt challenged to provide care for older adults that is on par with that given to younger patients. It is no wonder that they were frustrated with not knowing what to do and having to do something quickly in a harried work environment.

Spending Time Efficiently

The nurses talked about managing their time efficiently in working with older adults in a consistently busy work environment. One of their time management strategies was to focus on preventing acting-out behavior by the delirious older adult. Prevention was achieved in a variety of ways: by monitoring constantly to reassure and notice potential cues of escalation; by sedating the older adults so that they slept and did not attempt to crawl out of bed; and by physically restraining the patient so that the nurse did not have to constantly restart the intravenous (IV), or wonder if the patient had crawled out of bed.

In the nurses' accounts a tension existed about how and when time is spent. Nurses talked about the importance of spending time with the older adult at the beginning of their shift, or at the onset of a patient's delirium. They identified that "if we put in the time" to assess what was going on, and put into place a plan of care, "we really gained the time on the other side." (RN #1) If they used their time effectively in this way, they

could have more time throughout their shift, since the older adult would be settled according to plan, rather than acting-out, which could be time-consuming.

Other time management strategies used by nurses were creative methods for distracting the older adult patients with delirium so that the nurses could move on to other patients in their care. For example, folding linens was frequently used as a strategy:

> ...keep[s] their hands busy and then that keeps their mind focused on something else. And that buys you some time (RN #8).

The notion of "buying time" from the older adults so that nurses could care for other patients was frequently alluded to. Nurses often referred to the tension due to time limitations when assessing and caring for older adults, while younger, acutely ill patients were in the next room. Thus, to be time-effective, nurses identified that they had to know what to do with the older adults with delirium.

To use time efficiently, nurses also had to deal effectively with their own anxiety. Nurses described situations where the urgency to deal with a patient with escalating delirium, would cause the nurse's anxiety to escalate. A nurse's anxiety could then make the situation even more volatile if they intervened quickly in a controlling manner, rather than taking the time to think through the situation. One nurse summed up what many alluded to when she said "my own anxiety contributes to the situation....it's going to make....[it] even worse" (RN #6). More than half of the nurses interviewed spoke about how their own anxiety, in these kinds of situations, contributed to the patient's escalation and caused the nurse to intervene quickly without thinking clearly about the event. The tensions that sometimes occurred in the immediacy of a situation could limit the time available to carefully consider possible causes for the patient's behavior. In addition, a

nurse's anxiety often led to spending more time in dealing with a case, due to the use of ineffective strategies, which in turn, increased the patient's anxiety.

Generally, nurses spoke about their need to move slower, or better pace themselves with the older adult patients, who were less able to process the nurse's questions and requests, as could their younger counterparts. Nurses were left in a quandary, however, since moving slower for the older adults would mean they had less time to look after the younger patients in their care. Because of the tension caused by time constraints, the nurses tried to move the older adults along at a faster pace:

> For the most part, the elderly move a lot slower, and the faster you try to go, it doesn't get quicker (RN #7).

This nurse's statement highlights how any attempt to rush an elderly adult did not necessarily get the tasks done any quicker. In rushing an older adult, such as by walking them more quickly to the bathroom, or getting them to take medication faster, the whole process, ultimately, may have been more time-consuming. For instance, older adults seemed to perform tasks even more slowly when the nurse was rushed. With older adults, faster is not necessarily more efficient. One nurse identified that interruptions while she was delivering care to older adults would result in the activity becoming more time-consuming because of the older patient's slowed response time.

The nurses were frustrated because they had a limited amount of time to deal with a variety of patients, including the older adults who required more time. This frustration was exacerbated by not knowing what to do with the delirious older adult, and having to quickly decide about interventions, due to the immediacy of the work environment. Still more frustrating was the fact that 'faster' did not mean 'more efficient' with this population, and yet, the nurses described the necessity of carrying out quick interactions.

In attempting to prioritize their actions and deal with the frustration of limited time, the nurses focused on safety, what they considered as the most important concern with older adults.

Safety at all Costs

When interviewing nurses about the issues inherent in caring for older adults, the subject of safety inevitably arose. Nurses often spoke about the importance of keeping older adult patients safe; the potential for injury due to falling while a patient was delirious was paramount in the nurses' thoughts. Nurses indicated that they believed they themselves were responsible for such accidents. They described pharmacologically and physically restraining vulnerable older adults to ensure their safety in a work environment where the resources were insufficient to properly address the needs of these patients, while also caring for the younger patients.

Nurses' Sense of Responsibility

The nurses consistently talked about keeping older adults safe as being their number one priority, similarly to how a mother might speak about ensuring the safety of her children. The nurses' sense of responsibility was shown by their referring to protecting the vulnerable older adult patient from harm (i.e., from a fall or from the delirious patient discontinuing a medical therapy such as oxygen or an IV):

> They pull out their IV, and they're not drinking, ... So you have to put the IV back in and then that's when you'd probably do hand restraints (RN #3).

This nurse articulated her dilemma as having the responsibility to ensure that patients receive a therapy to address a medical need, and yet, needing to resort to an intervention that is troubling for her. As discussed earlier, nurses reported that restraints

were used as a last resort, and when speaking about their use, often had downcast eyes. Still, they felt obliged to keep the patient from harm. If a patient fell and was hurt, the nurse on that shift often felt responsible.

> She had a really horrendous fall. And it was because I didn't clue into the fact that she had been confused. Well, I still feel bad about that one (RN #4).

The nurses indicated they believed that they were not doing their job properly if a patient falls. In the case of a patient who falls, the incident must first be dealt with, and nurses are also required to complete an incident form, and then submit the details to their supervisor. This process may have contributed to the nurses' feeling of responsibility. Thus, the nurses had an additional incentive to keep the patient safe, by using sedation, or physical restraints, since they were wary of the personal ramifications that may develop if a patient fell on their shift.

The need to see older adults at all times also speaks to the responsibility many nurses felt when caring for vulnerable patients. If they could see the older adult at all times, then they believed they might be able to prevent harm. Almost all of the interviewed nurses reported that bringing older adults with delirium or at risk for delirium to the desk, was an effective and frequently practiced strategy to maintain surveillance while the nurses went about their other work. Similarly, nurses typically focused on activities that were perceived to keep the older adult patients in bed or on a chair, and thus in a safe situation under the nurse's control. These activities could be a symptom of the nurses' feelings of responsibility and wanting to be "on top" of what is happening with their patients in a challenging work environment.

Nurses also felt the responsibility for managing the care of their patients, regardless of the situation, and felt pressure from other patients and from the nursing staff to control a patient who was acting out in a loud or aggressive way. One nurse vividly described what that pressure was like:

> When you've got somebody screaming and climbing out of bed and you've got the whole staff riled up. What are you going to do with her? You've got the other patients riled up, because they want that woman who's screaming or that guy that's wandering and swinging his cane to stop. And you feel you've got all this pressure to try to control it (RN #6).

This description underlines the complexity of caring for an older adult who is delirious. Not only did the nurse feel the urgency to control the patient who is acting out, but the nurse must also spend precious time reassuring other patients and nurses that the troublesome behavior is being addressed. It also identifies how a patient who is acting out can change the tenor of the entire unit. Not only was the nurse responsible for managing the care of her patients, but also for ensuring that the entire unit environment was settled.

Belief that Restraints Keep People Safe

As discussed earlier, nurses "hate" (RN # 4) to use restraints and yet they do. Thus, to achieve safety, they felt that restraints were necessary, and were their only option in the immediacy of a situation. Many of the nurses reported using restraints to keep a vulnerable older adult safe in bed.

> We do restrain them....keep them in bed, so they can't get out and injure themselves (RN #3)

The underlying assumption in this statement is that injury would be an inevitable consequence if they did not use the restraints. This common belief expressed by the nurses to explain the use of restraints can be seen in the following quotation: "We had

him restrained...or he'd be falling (RN # 7)." This nurse used the word "had" to explain restraint use, as if no other options were possible, and safety was paramount.

Another reason given by nurses to use restraints for the older adults was to prevent movement, or wandering. One nurse identified a common assumption among the nurses that patients were not allowed to wander.

> Everybody knows that if somebody is climbing out of bed and wandering that they have to be stopped. So we put them in a chair with a table (RN # 6)

This statement illustrates a common concern felt by nurses about vulnerable people wandering about and possibly hurting themselves or others. Thus, they put the person in a "high-chair." In everyday life, children are commonly restrained in high-chairs or in car-seats. Consequently, the use of restraints is associated with the safety of a vulnerable individual.

Nurses spoke about how "We are trying so hard not to use restraints, and so we turn to whatever works, and so then we sedate." (RN# 1) This nurse's statement highlights the general beliefs of nurses about sedation (i.e., pharmacological restraints), as being less harmful to the patient than physical restraints. The nurses who frequently give medications to patients for pain or anxiety considered sedation a positive treatment. Ironically, many of the nurses in this study identified iatrogenic changes in older adult patients as being the result of the nurses' sedating the patient.

Whether the nurse used pharmacological or physical restraints, the end goal was often similar. The objective was to contain a potentially volatile situation, where the nurse believed the older adult was at risk of injury. The decisions made by the nurses to manage the care of older adults, who may or may not have the potential for escalating

behavior, were often made during a harried moment in the busy work environment. It is no wonder that they often turned to interventions they considered to be accessible and which they associated with safety or comfort.

Not Enough People

Nurses talked about the challenges of there being a limited number of nurses for ensuring safety of older adults at risk for delirium. As a result, they relied on a variety of methods to monitor older adults. Some nurses enlisted the assistance of family members, or other health care professionals, to sit with the patient. The nurses explained that the strategy behind this intervention was that a sitter could prevent the older adult from pulling out the IV or getting up to walk just after hip surgery. Also, the sitter could distract the older adult with conversation and reassurance. This personal attention might reduce or alleviate the patient's concerns, thus reducing the likelihood of escalated behavior, which could be time-consuming for the nurse, and put the patient at risk for injury. One nurse reported that, in some situations, she would enlist the assistance of other patients in the room to ring her if the older adult with delirium tried to crawl out of bed:

> I may ask other patients who are with it to help me. You know to be my eyes and my ears. I say, if you see this person attempt to crawl out of bed or do something, ring me...and then that way I don't feel the pressure of having to be in that room. But I also have the, the, the comfort of knowing that somebody else is looking after them (RN #7).

This nurse's explanation identifies that she was comforted, knowing that her delirious patient was being monitored at all times. This scenario also underscores the passion that many nurses felt about monitoring the older adult at all times – so important that a nurse would even enlist the assistance of other patients to achieve the result. This

is a symptom of the tensions caused by the limited time and numbers of people for meeting the needs of the older adults. The nurses believed so strongly in the importance of observing the older adults that when asked how they would improve their current situation, inevitably, they described the need for an area or room near the desk that could be used for observation.

Every nurse mentioned that an increase in staff would allow for more effective caring for older adults. Many also identified care attendants, licensed practical nurses (LPNs), occupational therapists (OTs), and physiotherapists (PTs) as being beneficial in assisting with care, as they could sit with the patient or attend to personal care as necessary.

Another strategy for monitoring older adults with delirium and keeping them safe while the nurse completed other work was to bring the patient along while the nurse cared for other patients. This strategy was also associated with giving the older adults a job to do, and by distracting the patient while the nurse accomplished the tasks:

> He wouldn't stay in the room, in the morning for our morning rounds. So we just let him follow us. And our cart, he kind of pushed our med carts for us... gave him little jobs to do. Well I think he was frightened (RN #5).

This description was typical of many of the interventions described by nurses for keeping the older adults in close proximity, since no-one was available to monitor the patient while they completed their work. It also reveals the tension created by the availability of time and people. The nurse had other work to do but must somehow watch the older adult patients with delirium, while accomplishing the tasks. Having someone to sit with the older adult patient would free some time for the nurse to give full attention to the related care of other patients.

The nurses felt such an intense sense of responsibility to keep older adults safe, that they would engage in interventions, such as using restraints, that caused them personal dissonance. Their desire to know the location of the delirious older adult, and to keep the patient safe in a "high–chair," or tucked in bed, closely resemble the kind of care that a mother gives for a vulnerable child. To achieve this safety at all cost, the nurses enlisted the assistance of other patients, and used interventions, such as restraints, which they "hated" to use. All of these activities occurred in the context of what nurses and our society believe about the old.

Beliefs about the Old

Our beliefs guide the knowledge we choose to acquire and the actions we enact. The beliefs held by nurses about old people shaped their motivation to acquire knowledge, and influenced their day-to-day actions with this population. Throughout these interviews, nurses alluded to, and spoke directly about societal beliefs about the old that are reflected in their daily encounters with older adult patients. Formal acknowledgement for the time and resources spent to care for this complex population were lacking in the system. Beliefs about the old were seen in the frustrations nurses experienced in giving safe, efficient care to older adults in a system shaped by societal values and beliefs, and a society that views older adults like children and as an obstacle to the more important work of caring for younger adults.

Old People are not Valued

Our societal value system affects how we structure the delivery of health care, and where we place our priorities. Priorities affect the emphasis in acquiring knowledge to

care for a specific population, the supports provided, and how nurses' concerns are voiced. Nurses identified that our Western culture does not value older adults:

> As a culture we....think they're disposable. It's like, you've served your purpose, you've done your time, now move on (RN # 7).

This nurse was describing an underlying value system that shaped how our health care delivery is dispensed. If we believe that old people have served their purpose, and are no longer valuable, we will be less inclined to focus on acquiring a knowledge base for delivering the appropriate care. The majority of nurses had little to no education about older adults, and consistently identified that they were unclear about what to do with older adults at risk for delirium. Even the most experienced nurses interjected with comments like, "What do you do?"(RN # 6) when telling their stories. They had varying degrees of understanding about the key differences between delirium and dementia, and none of the nurses described delirium as being a medical emergency. In fact one nurse said of nurses in general that "We consider delirium more of a patient's personality than we do an acute illness (RN #1)."

The interviewees recognized that some nurses have more knowledge than others about delirium and the care of older adults. "Some nurses have a lot more interest and a lot more knowledge" (RN # 1). This nurse astutely recognized that interest precedes knowledge. Other nurses spoke about varying differences of attitude and interest among nurses, in caring for older adults. It follows that people learn most about their topics of interest.

The nurses described managing care of an older population in a system that was set up to deliver efficient care to younger patients:

> There is a lot of tasks that nurses need to do to get through the day to take care of acutely ill older adults....the pace that they need to go at to do those things is faster than the pace of the elderly....we're caring for an acutely ill population without the recognition of what the second line is, most of these people are elderly, over 65 (RN #12).

A dichotomy was expressed in that nurses were aware that they needed to be efficient, but that taking care of an older population required some time to assess, evaluate, and deliver appropriate interventions. The system, however, was set up for younger patients and did not support nurses spending this time with older adults.

Old People are a Nurse's Burden

One nurse (RN #8) rated the daily stress associated with care of frail older adults at risk for delirium as a seven (on a scale of one to ten, with ten being the most stressful). If nurses experienced such a high daily stress level, it is not surprising that they were frustrated. Throughout the interviews, nurses directly, and indirectly in their stories, described how caring for delirious older adults was frustrating. One nurse summed it up when saying, "one of the most frustrating areas of nursing... (is). caring for the elderly" (RN # 3).

Almost all of the nurses discussed how caring for delirious older adults was "just part of what you deal with" (RN # 8). The underlying belief was that caring for old people was work that fell squarely on the shoulders of nurses who felt "you're on your own" (RN #8).

> They're old, they're confused.... is just time-consuming, and not fun to deal with. It's not pleasant (RN #1).

This nurse summed up a general sentiment expressed by most of the nurses. They felt the work was hard and time-consuming. Caring for delirious older adults was not an

activity that the nurses enjoyed or eagerly sought out, instead it was often seen as being frustrating, especially when also trying to care for younger patients. This could be a symptom of how our society values older people.

> It's about how we value the elderly; it's about in comparison, with how, you know, we might value other persons in society (RN #10).

This nurse articulated an underlying value that older adults are not as valuable as their younger counterparts. Moreover, this was evident by the way our health care system is set up for efficiency. To complete what must be done in the course of a day, the nurse had to be as efficient as possible. Yet, with older adults, being faster was often being less efficient. The system was structured for younger people, which caused frustration for nurses in doing their work with older adults.

The difficulties felt by nurses were perhaps due to their attempt to care for a complex population without having the necessary time, education, people, or physical resources. Even more frustrating was the lack of any acknowledgement for nurses as they attempted to overcome these barriers. After all, the system did not formally address the fact that our patients were old and with unique needs. Nurses spoke to one another about their frustration in caring for individual patients with delirium. However, the manager who was interviewed mentioned that nurses were not bringing forward their important issues about caring for the older adults.

Many of the nurses reported that looking after old people in the hospital was just part of the job (a part of nurses' work). Therefore, when the nurses were struggling to look after older people, they often believed that they were not doing their job effectively (since a good nurse should somehow just know what to do).

Old People are like Children

The language used by nurses when speaking about delirious older adults resembles that used to speak about children. They often referred to the older adults as "my little elderly" (RN #3). Some nurses referred to the delirious older adults as "almost like children" (RN #5), and caring for them was "like babysitting." (RN # 5) This language could stem from the nurses, many of whom are mothers, relating to the care of older adults as resembling the care for their children. Despite this language, nurses identified that older adults were not children, and deserved to be respected and treated with kindness and dignity. When the older adults exhibited delirious behavior, however, nurses mentioned that it was sometimes a challenge to remember this philosophy in the fast-paced work environment:

> When they're confused they're almost like children, and sometimes they can be treated as children, in a hurry (RN # 5).

The comparison of older adults to children was made by more than half of the nurses. The sentiment was expressed that the older adult exhibiting childish behavior was deterring the nurse from accomplishing the real work of caring for a medical or surgical patient. Since nurses often lacked in time, knowledge, and resources to care for older adults, the delirious behavior could often be an annoyance. One nurse summed it up nicely when she said:

> I'd like to work in an area where...I can focus on acute medical illness, and that's all I want to work with...because...working with the confused elders is really frustrating (RN # 1).

This statement highlights that nurses want to work in an area where they feel knowledgeable and can be satisfied that they are doing the best job they can. Despite the challenges faced by nurses with the older population, they were able to recognize that "if

it were easier, then it will be a whole different story" (RN # 1). This remark identifies what other nurses alluded to, that if nurses had the time, knowledge, people, and resources to optimally care for older adults, they might actually start to feel a satisfaction in caring for them.

Nurses described their frustration and a lack of satisfaction with their work, due to the challenges of caring for older adults at risk for delirium. Some of the challenges were created by our social values of aging which affect the way our health care system is set up. Nurses who are inadvertently comparing older adults to children may be reflecting society's diminished value for the old. The system was set up for efficiency with younger adults, without recognizing that the patients are old. Efficiency with older adults is not equivalent to the fast pace used by nurses. Thus, their feelings of frustration and being unsupported comes with little surprise.

Summary

The nurses interviewed for this study described frustration in delivering care that is required for older adults in the hospital environment, which was geared for the efficient delivery of care to a younger population. The assessment and care of this population occurred within the tensions that arose from the multiple priorities of nurses. To make the situation more complex, nurses often felt uncertain about what to do with the older adult with delirium in the urgency of the moment. Yet, they felt compelled to ensure safety at all costs, and were led to use activities, with which they were uncomfortable. Societal values of older adults influenced all of the activities in which nurses engage themselves, and in how the health care was structured. Nurses who were experiencing frustration and increased demands on their time were not speaking openly about their

unique challenges in working with the older adult population. In the next chapter, the findings are discussed and implications for practice are explored.

CHAPTER 5

Discussion

The research question: "How do nurses care for hospitalized older adults at risk for delirium?" sprang from clinical observation, the prevalence of delirium, and the challenges being faced by nurses who give daily care for this population. Nurses frequently discussed their personal discomfort about things they "had" to do, to complete their work, and "wished" that more time and people were available to give older adults better care. When asked by a novice nurse how to best care for this population, I turned to the literature for a quick, practical, best practice answer. Despite the plethora of information on how best to assess, prevent, and treat delirium, almost all studies were in settings with more resources than those of a small regional hospital. Usually, in the studies, nurses were identified by what they "should" do, and not by the current situation. Even more shocking is the fact that only 30 percent of nurses were recognizing delirium in older adults, which is an essential step towards planning appropriate care. Consequently, I wondered how nurses care for older adults at risk for delirium in the "real" hospital world, without benefiting from the protocols described in the literature. Also, I wanted to identify the barriers to implementing research about best practice for older adults at risk for delirium.

Interviewing nurses who work in an acute care regional hospital produced data that illuminated three main nursing activities used in caring for older adults at risk for delirium: (1) *Taking a Quick Look,* (2) *Keeping an Eye on Them,* and (3) *Controlling the Situation.* The context in which the nurses cared for this population was discussed under the themes of: (1) *Frustration from the Time Constraints,* (2) *Safety at all Costs*, and (3)

Beliefs about the Old. The thematic analysis revealed that nurses encounter a barrier in working effectively with older adults, which is inherent to the way that our health care system is set up, and reflects societal beliefs about the old. One participant made an insightful statement about our system when she said:

> So that is the silent unspoken piece about what's our business really about. Our business is ...about acute illness, but it's also about the elderly in the community, with multi-system problems (RN #12).

This nurse summed up the essence of our system, in that nurses are caring for older adults with complex multi-system illnesses, without having spoken recognition of this fact. Nurses focus on medical problems such as congestive heart failure, or recovery from hip surgery, without considering the impact of the patients' age. Older adult patients have different presentations for these conditions, which can also include delirium. The implications of these different presentations and the associated interventions are never overtly recognized or acknowledged. Thus, the underlying context of care of this population occurs in a vortex of the unspoken. In this chapter, the implications of these findings are discussed in relation to the literature, and suggestions for practice are offered.

How Nurses Care for Older Adults at Risk for Delirium

As identified in Chapter 4, nurses engage in three major activities (taking a quick look, keeping an eye on them, and controlling the situation) in caring for older adults at risk for delirium. These three major activities answer the question of how nurses assess, prevent, and treat older adults at risk for delirium. Although nurses described how they prevented escalation of delirium, they did not identify prevention protocols as being part

of their work environment. Nevertheless, in spite of a fast-paced environment with competing demands for their time, the nurses reported assessing the patients' cognition and using a variety of monitoring and restraining strategies to manage delirious older adults, as was described in the literature.

Assessment Strategies

Nurses used purposeful questions, such as "How was your day?" or "What did the doctor say?" to determine the orientation of a patient who was suspected of being "confused." These brief questioning conversations, used to assess the level of alertness and orientation and to determine confusion, were similar to the nursing assessment strategies described in other studies (Fick & Foreman, 2000; Miller, 1996; Rogers & Gibson, 2002). Unfortunately, if only these types of assessment criteria were used, an older adult who is experiencing hypoactive delirium could be deemed to be merely sleepy. None of the nurses interviewed described their experience with hypoactive delirium. Given their vivid descriptions of a fast-paced work environment, with occasionally violent hyperactive delirious older adults, it is not surprising that the quieter presentation of delirium was unnoticed.

Nurses described assessments of cognition under extreme time constraints, that occurred during the brief introductions to patients. Fick and Foreman (2000) noted this assessment method, and identified that the assessment of cognition is not possible in the brief moments when nurses were with delirious older adults. The nurses' consistently described time constraints that would have made it unlikely for them to be able to thoroughly assess the cognition of older adults.

In a review of the literature, Foreman, Wakefield, Culp, and Milisen (2001) suggested that the under-diagnosis of delirium was a result of the absence of standard assessment protocols. The surgical unit, in this study, had a clinical flow sheet for daily charting that incorporated the CAM as part of the assessment. Nevertheless, none of the nurses mentioned using this aide. Thus, the presence of this aide on the surgical unit seemed to not affect the way nurses assessed patient cognition.

Monitoring

Nurses frequently used monitoring to ensure safety within the time restraints of their work environment. They felt the need to know their patients' whereabouts and activities at all times, and to be able to intervene before the older adult got into trouble (crawling over the side rails or pulling out the IV, etc.). Constant monitoring was also a strategy used by nurses in the study by Rogers and Gibson (2002). Other experts suggest that encouraging family members to sit with the delirious older adult, and providing emotional support are other ways to manage delirium (Branski, 1998; Simon, et al., 1997; Stone, et al., 1999). The nurses in this study also mentioned the use of these strategies to reassure their patients that all was well, and to achieve constant surveillance.

To achieve constant observation of the older adult patients, nurses would put a patient in a geriatric chair in the hall, or at night, move the patients in their beds to the nursing station. It is similar to a mother putting her child in a high chair with an activity to do, near her watchful eye, while she completes her housework. As many nurses are also mothers, it is logical for them to choose an intervention that is familiar to them. The only other mention of this practice in the literature was in Rogers and Gibson's study (2002). Moving the patient to the nursing station for the night allows nurses to monitor

the patient while still completing other work. Nevertheless, moving a patient to a place where activity is taking place contradicts the principle of providing a quiet atmosphere to promote rest and manage delirium (Panno, et al., 2000; Rogers & Gibson, 2002). Nurses in the study reported that patients would sleep near the desk, and feel comforted by hearing the voices of the nurses. In contrast, however, they also reported that older adults sometimes went days without sleep, which exacerbated the existing delirium. Some correlation may exist between being at the desk at night and not sleeping, and further study about potential benefits and risks of this practice would help to illuminate its usefulness. Nurses mentioned that, in a "perfect world" they would have an observation room near the nursing station, with a glass window, or television surveillance, to provide a quiet, relaxing environment, but with constant observation too.

Restraints

In this study, the nurses used restraints to prevent potential injury, to ensure continuation of medical therapy, and control escalating behavior. These concerns are often cited as reasons for nurses to restrain patients (Evans, et al., 2003; Rawsky, 1998). Similar to the study by Rogers and Gibson (2002), nurses also used physical restraints to protect patients and nurses from injury due to violent outbursts of the delirious older adults. Using pharmacological and physical restraints for delirious patients are methods that have been in practice since antiquity, making it no surprise that nurses in this study also reported using them (Berrios, 1981; Rogers & Gibson, 2002). Convinsky (1998) and Inouye (2000) identified that disguising medical equipment may be another way to avoid the patient's discontinuation of a medical therapy (e.g., IV). The data from this study is

insufficient for determining if nurses use these types of problem-solving tactics. The major interventions nurses discussed using were pharmacological and physical restraints.

The sedation of agitated delirious patients has been recommended as a beneficial treatment since the time of Hippocrates (Lipowski, 1990). Modern experts, however, recommend that when medicating older adults, the dose should be administered as sparingly as possible to prevent over-sedation (Panno, 2000; Rosen, 1994; Segatore & Adams, 2001). In this study, nurses reported their concerns about the iatrogenic effects seen in older adults as a result of over-sedation. They also stated that they would be less likely to use pharmacological or physical restraints if someone was available to sit with the patient. When pressed for time or because of a lack of people, the nurses said they would turn to using medication to sedate and control the delirious older adult patient. Restraints thus served as a proxy nurse, when the nurses believed they had no other choice.

One also hears mothers relate their activities, mentioning that they might restrain their child in a high-chair or in a car-seat so that they have freedom to get their housework done. Nurses, many of whom are mothers, may also use similar reasoning, in caring for older adults. Although alternatives to physical restraints exist, little is known about whether or not nurses in this study understand all the options, or if they believe the work environment is conducive for alternatives.

Nurses mentioned that they used physical restraints on patients only as a last resort, yet also stated that they wanted more restraints and geriatric chairs (with matching tables), to be used as restraining devices for their delirious older adults. This contradiction gives the impression that the nurses may be using restraints more often than

what is being reported, which concurs with the finding of Evans, Wood, & Lambert (2003) that restraint use and the resulting injuries from restraints are being under-reported.

Thematic Analysis of Nurse Strategies

The thematic analysis of the data offers a context for the significance of the strategies used by nurses. The three major themes of: (1) frustration resulting from lack of time; (2) safety at all costs; and (3) beliefs about the old offer answers to the second subsidiary question: What are the challenges or barriers faced by nurses in providing best practice care to older adults at risk for delirium.

Frustrations from Lack of Time

The nurses in this study consistently identified frustration as being caused by the lack of time to assess, monitor, and participate in the care of older adults. The work environment is fast-paced due to the rapid turn-over of a variety of acutely ill patients of all ages. Caring for older adults is more time-consuming than the time available in a system that is geared for younger patients. To work effectively in this system, nurses must be efficient and knowledgeable about the care for a variety of patients including delirious older adults.

Working Efficiently

To efficiently use their time and care for all patients in their care, nurses would "buy time" from the delirious older adult patients. "Buying time" is done by bringing the patient along with the nurse as work is being completed, having a patient monitored by others, and using pharmacological and physical restraints. One nurse highlighted the lack

of time experienced by nurses in her description of having to rely on another patient to ring for assistance if the delirious older adult patient in the room escalated in behavior. Nurses must feel pressured to complete their work when they have to resort to enlisting assistance from other patients. To be efficient and still be able to care for all patients in their care, nurses feel the necessity to use restraints. Yet, when nurses use restraints, older adults could experience detrimental effects, which would lengthen their hospital stays, and decrease the efficiency of the system. Thus the interventions nurses feel they must use to be efficient can contribute to the inefficiency of the system.

In this study, the nurses pointed out that with older adults, "faster is not more efficient." Miller (1996) would agree that a slower pace, without interruptions of the nurses' interactions with older adults, would improve in the assessment and intervention of delirium. The nurses said that if they could spend the necessary time with older adults to properly assess their situation and form an effective plan, they would not have to waste time enacting ineffective solutions or dealing with an older adult with escalated delirium. McKiel (2002) identified that time for nurses to deliver direct patient care, which is one of the ways older adult's cognitive abilities are determined, has decreased in the recent changes to the health care system.

To consider possible causes and intervention strategies for the older adult with delirium, nurses need the time to think. The fast-paced, complex work environment, as described by nurses, does not provide adequate time for the thorough assessment of older adults, or for the planning of the best interventions. Varcoe and Rodney (2002) identified that the current work-place challenges and constant need to solve problems in the immediacy of the moment, does not allow nurses enough time to "think through" their

care and to find out what is really going on with the older adult who might be displaying "confused" behavior. In this study, the lack of "think through" time was evident in nurses' descriptions of being pressed to make quick assessments and quick decisions about an appropriate intervention. Many of the challenging situations are resolved in the moment, with nurses' decisions being made in the clinical setting, even as the patient is exhibiting disruptive behaviors. Efficient care of older adults must include the necessary time for nurses to assess and think about the most appropriate interventions, rather than only reacting frantically in the moment. The manager talked about the system pressures for efficiency and referred to acute hospital care as "our business" (RN# 12). Ironically, if the system was operating according to good business principles, nurses would be supported in their work by having enough time, knowledge, and people to think through their interactions with patients.

Nurses stated that assessing, managing, and preventing delirious behaviors in older adults took time. The extra time needed to work with older adults was often expressed as an increase in the nurses' overall workload. The nurses' increase in workload was also identified by other researchers who explained the phenomenon as being a result of decreased lengths of hospital stays, which has increased the average nursing care needs of patients – a by-product of the health care system cost-containment efficiencies (Campbell, 2000; Dunleavy, Shamain, & Thomson, 2003; McKiel, 2002; Moses, 1998; Nichols, 1998; Varcoe & Rodney, 2002). The pressure to get patients through the system efficiently, within a number of days determined by their diagnosis, and without any consideration for their age, was recognized by the nurse managers in this study. These cost-containment strategies are based on a business model (Hunt, 1997),

however, good business practices would also include identifying the population, knowing the best practices for the population, and planning business strategies accordingly. This is not the case. Instead, that we are caring for a population that is older is "the silent unspoken ...about our business" (RN #12).

Lack of Knowledge

Issues about nurses' knowledge base, and how it is obtained emerged from the interview data. The nurses identified a lack of knowledge about what to do with older adults who were experiencing delirium. All but one nurse reported little to no formal education about the needs of older adults, which is mentioned in the report by Baumbush and Goldenberg (2000), where nursing education about older adults has not kept pace with the need. Fick and Foreman (2000) found that 75 percent of nurses interviewed did not know the difference between delirium and dementia, even though they had received some type of education about the subject. If educated nurses have trouble differentiating between delirium and dementia, then the nurses in this study, who reported a lack of knowledge, must also be struggling to understand the conditions. This may explain why few nurses are able to recognize that the confusion of older adults is a medical emergency.

The nurses' limited knowledge in performing cognitive testing, and their beliefs that good social and self-care skills were equivalent to intact cognition among the older patients, contribute to the under-diagnosis of delirium (Foreman, et al., 2001). This might resemble how the nurses used social conversation as a primary screening tool for "confusion." All nurses in this study expressed their lack of knowledge of delirium, which would affect their ability to perform cognitive testing. Moreover, the nurses'

competence in assessing (in this case, for delirium), will affect the timing and organization of their work (Waterworth, 2003). One would think that a system that valued efficiency would ensure that its workers had the information needed to do the job. In the case of care of older adults, nurses need to have quick access to clear information about best practice protocols for presentation, causes, and interventions for older adults with delirium. If not, then more valuable time would have to be spent looking for the information or in engaging ineffective interventions. Best practice protocols exist, perhaps they are not being used because it is the "silent unspoken" that our population is old. If we fail to recognize the identity of the population we are caring for, then we are unlikely to have the information to best care for them.

Nurses mentioned having developed their knowledge and strategies for assessing and managing delirious older adults, principally from their experience with this population. The stories told by nurses reinforced the idea that they learn about care of older adults from their own experience and from other nurses. The development of expertise over time, is in keeping with Benner's (1984) findings about how clinical nursing knowledge develops. Hutchinson and Johnston (2004) warn that the integrity of nursing is threatened by a dependence on experience to inform practice. Since the currently harried work environment has reduced opportunities for nurses to interact with more experienced nurses and to acquire valuable knowledge, this method of knowledge acquisition is likely to become increasingly unavailable, especially with the large cohort of nurses retiring in the next ten years. As experienced nurses retire, greater gaps in care may develop and newer nurses, who need more time to complete basic tasks and to recognize the needs of older adult patients, will not be able to rely on the experienced

nurses. The idea is disturbing that nurses are learning about how to care for delirious older adults from each other, in the currently frantic work environment, where time to think is at a premium. One wonders if nurses are able to deliver safe care under such conditions.

Safety at all Costs

Nurses practice in conditions that might frequently be considered as being "under siege," yet are accountable and responsible for the patients in their charge. Not surprisingly, nurses consistently identified safety as a prime concern in the care of older adults at risk for delirium. Nurses believe they are responsible for the safety of older adults in a work environment that has too little time and too few people to care optimally for all patients. These beliefs have led them to choose interventions that may not always be in the best interests of the older adult patients.

Nurses' Responsibility

Nurses have a strong sense of being responsible for the safety of vulnerable people in their care. The responsibility in providing safe nursing is something that is also emphasized in nursing schools, professional licensing bodies, and practice environments. Thus, it is not surprising that nurses consistently described concerns about safety of the older adults in their care as being a driving force in their choice of nursing interventions. Still, the nurses described a work environment in which they were constantly having to "buy time" from the older adults so that they could go care for their other patients. Perhaps, at times, the interventions chosen by nurses to "buy time," were more for keeping the patient safely contained so that the nurse would not be responsible for any injury (i.e. from falling) that the older adult patient might experience.

Nurses believe they will be liable if a patient falls while on their watch (Evans & Strumpf, 1991). Since nurses might feel that their licenses are on the line, if a patient breaks a hip, they might be more focused on constant monitoring and controlling any of the patient's acting out delirious behaviors. Nurses often go to great lengths to achieve constant monitoring. They may keep older adults in geriatric chairs with tables, or in the hallway during the day and then bring them in their beds to the nursing station at night. Sometimes, the nurses enlist the help of patients to monitor others, or bring delirious patients along with them while giving care to the patients. In addition, the nurses would sedate, or use physical restraints for the older adults until they could not crawl out of bed or discontinue the IV. Some of the interventions chosen by nurses in the fast-paced work environment, where little extra time is available for thinking through the interventions, might be the result of the nurses' sense of accountability, or liability, rather than a consideration of what is best for the older adult.

Nurses' Safety Interventions

To achieve safety, the strategies used by nurses (monitoring, pharmacological and physical restraints) were similar to the interventions described in the literature (Fick & Foreman, 2000; Rogers & Gibson, 2002; Rosen 1994; Segatore & Adams, 2001). Factors such as time available, the amount of assistance at hand, and the nurse's experience all had impacts on the choice of intervention. In this study, nurses reported putting the delirious older adult "to work," folding face cloths, or pushing around the cart with bathing supplies as an aid in monitoring what the older adult was doing. These methods were not mentioned in other studies. One strategy frequently used by the nurses to monitor the older adult was achieved by having someone sit with the confused older

adult. This strategy has been frequently mentioned in other studies (Inouye, et al., 2000; Segatore & Adams, 2001). When someone is able to sit with the delirious older adult, the nurses claim that they were less likely to use sedation or physical restraints.

The nurses in this study pointed out that even though they "hated" to use restraints, they believed that sometimes they "had" to, to prevent injury. A commonly held myth among nurses is that restraining patients will prevent falls. In fact, restraints do not decrease the rate of injury but lead to iatrogenic changes, and further delirium, that may lead to serious complications for the older adult, including death (Evans, Wood, & Lambert, 2003; Phillips 2004; Rawsky, 1998; Segatore & Adams, 2001). Nurses may feel compelled to restrain patients as a method to manage an overwhelming workload. To encourage the use of alternatives to physical restraints, nurses should first learn about their options, believe in their use, and feel supported by management (Mayhew, Christy, Berkebile, Miller, & Farrish, 1999). Nurses in this study used monitoring as an alternative to restraint. They did not feel supported by management to in their endeavors to maintain monitoring through the use of sitters, because of the associated cost to increasing staff.

The nurses said that a lack of people and the inadequate physical design of their unit affected their use of restraints. When the hallways on the unit are long, narrow, and full of clutter, the nurses have a difficulty to easily observe the patients, or monitor the condition of a patient in the end room, who may have an escalating delirium. The nurses also stated that more staff to sit with the delirious older patients would decrease the need for pharmacological or physical restraints, as well as reduce iatrogenic changes, since someone could walk the older adult to the bathroom, and assist with their bathing or

feeding needs. These supportive measures have been recommended for the care of delirious patients since the 19th century (Lipowski, 1990). Given the increased workload associated with a fast-paced work environment, and multiple demands on the nurses' time, since health care reform, one may appreciate how more staff could help to maintain the supportive measures. More staff may not necessarily improve the quality of patient care, or, in this case, the recognition and treatment of delirium, but nurses could gain extra time to "think through" their care. In addition, they would also need the knowledge of best practices for older adults, and a system that supports their practice.

Segatore and Adams (2001) believed sitters to be a cost-effective alternative to restraints, as a method to decrease patients' acting out behaviors. Since restraints lead to iatrogenic changes, which could ultimately lengthen the hospital stay for an older adult, one would think that the system, in trying to decrease hospitalization days, would be motivated to support nurses in eliminating such practices as restraint use. The interventions used by nurses to achieve safety with older adults are based on their beliefs about old people. Recognizing, or not recognizing delirium in older adults may also be affected by our beliefs about the old.

Beliefs about the Old

The attitudes, beliefs, and values of nurses and other health professionals all contribute to the environment we provide in hospitals. Nurses' attitudes are a reflection of societal beliefs about the old, and their attitudes toward older adults thus affect how they care for them (McKinlay & Cowan, 2003; McCarthy, 2003). A hospital environment where nurses feel that "you're on your own." (RN # 8) when caring for older adults, is a

symptom of a vortex that is created when the older age of the population and care implications are not spoken of.

Societal Beliefs

The lack of attention to care of older adults is a symptom of a broader issue concerning the attitudes of care of the older adult that exists in education and hospital institutions, as well as in society as a whole. Nurses, in the undercurrent of their stories, clearly described how the older adults are not valued. The lack of our caring for older adults highlights a diminished value of old people, which may be explained by the theory of ageism.

Research confirms that our population is aging and that nursing education about older adults has not kept pace with the need, to reflect how our society and the nursing profession views aging (Baumbusch & Andrusyszyn, 2002; Baumbush & Goldenberg, 2000; Joy, Carter, Smitt, 2000; Rogers & Gibson, 2002). Only one nurse in this study reported receiving more than a little education on addressing the needs of older adults, so that most of the nurses had to learn their expertise while on the job. The lack of emphasis for acquiring knowledge about caring for older adults may indicate a lack of value for this population, or perhaps indicate that caring for old people is an "unspoken piece about.... our business" (RN # 12).

McCarthy (2003) identified that nurses' beliefs about older adults influence how they think through clinical situations. For example, if nurses expect that old people in hospitals are confused, then they would be less likely to assess if such confusion was new or chronic. Robinson (2003) identified a common belief among nurses that all old people are confused. One nurse in this study confirmed this belief, explaining that nurses see

confused old people so often that they begin to view the confusion as a part of the older adult's personality. This nurse also stated that the belief that confusion was normal for an individual was a barrier to the delirium being identified and treated. This phenomenon of not recognizing delirium to be a medical emergency has led to increased hospital stays, nurse frustration, serious consequences for older adult patients, and a decreased efficiency of the system (Akid, 2001; Foreman, Wakefield, Culp, & Milsen, 2000; Voyer & Sych-Norrena, 2003; Wong, Wong, & Brooks, 2002).

Philosophies about aging can affect the care that older adults receive. McCarthy (2003) attributed the variations in nurses' ability to differentiate between delirium and dementia, to variations in the nurse's personal philosophies about aging. If nurses think that the older adult's confusion is dementia, rather than delirium, a medical emergency that can be treated, they may be less likely to report the issues that are related to care of older adults. A manager mentioned that she did not hear from the nurses about issues with caring for the older adults, yet the nurses described caring for old people as being frustrating, constant, difficult, and just part of their work. If nurses have this belief, then they may think that to be a good nurse, they should be able to manage their patient load. Further, if they report problems in coping with their work load, it could be seen as admitting to a personal inability to cope with the work, as is expected. Alternatively, since nurses are frequently solving problems with regards to the delirious older adults in a moment of crisis, without being able to "think through" what is going on, they may not be able to make the connection that the "moments of crises" are, in fact, a pattern that should be reported. Thus, some of the nurses' frustration could stem from the belief that this is just part of the job, instead of recognizing patterns that may be resolvable. Until

nurses begin speaking about the realities of caring for an aging population, the associated problems will not be brought into the open where they can be addressed. This dilemma may be symptomatic of our societal values or of the lack of value placed of older adults.

Perhaps, nurses may have brought these kinds of issues forward and managers, who also must deal with the lack of "think through" time, may have not seen the issues to require more than a Band-Aid solution. To be able recognize, report, and address the issues concerning the older adults, nurses and managers must be able to identify that the "unspoken piece about...our business"(RN #12) is that our patients are old.

The attitudes of nurses about older adults could be a reflection of the beliefs and attitudes in our society. One only has to switch on the television to see advertisements for how we can stay young looking. This could be explained by the theory of ageism. Ageism is exhibiting a negative attitude to individuals based on their age (Kitchner, 1999). Negative attitudes are exhibited in the claim that age and chronic confusion are synonymous (Fick & Foreman, 2000). The negative attitude about older adults is prevalent overtly and in the subtle lack of attention that we give to older adults (Fick & Foreman, 2000; Kitchner, 1999; Robinson, 2003). This might also explain why the care for a population that is older is unspoken. Nurses dislike of caring for older people could be a symptom of a general discomfort with aging. Perhaps, if we were to recognize that our patients are old, we would also have to recognize that we too were getting older. Another possible symptom of ageism was noticed when nurses frequently referred to older adults like children.

Nurses may have related to the delirious behaviors of older adults as childish behavior when reporting that "sometimes they can be treated as children" (RN # 5).

Thinking of delirious older adults as children may explain why nurses, predominately women and often mothers, wanted to put them in "high chairs" or restrain them to keep them "safe," and why they wanted to keep their older adult patients "occupied" while the nurse completed work with younger patients. Still, one can make the comparison of older adults to children only so far, since, if the same delirious behavior exhibited by older adults was observed in a child or a younger adult, the nurses would immediately be looking for causes and solutions. Somehow, the situation is different with older adults.

In discussing ways to improve outcomes for frail older adults, Convinsky (1998) identified the importance of the environment and systems that play a major role in the patients' functioning. In this study, however, nurses described how the system moves at a pace that is different from that of the older adults, which influences how nurses can work and promote optimal outcomes for this population. Because the system does not recognize that our population is older and is not putting appropriate resources into place, to meet the needs of this population, it operates inefficiently by contributing to poor outcomes and longer lengths of stays for older adults.

Vortex of the Unspoken

Nurses are caring for a population that is older, and yet, the nature of this care is not formally spoken of. Instead, best care for an older adult is left to be mediated in the moment of need. Decisions are made on a nurse-to-nurse basis, without thinking through the unique needs and priorities of older adult patients. By ignoring the unique needs of old people in our system, and attempting to force them to fit into systems designed for younger people, care is less efficient, and occurs in an unspoken vortex. As the nurses in this study identified, this vortex leads to nurse frustration, longer lengths of stays for

patients, and poor outcomes for old people. Nurses vividly described workloads where the juggling of competing priorities was diminishing their available time. The nurses also identified that a lack of knowledge and shortage of people were affecting their ability to care safely for older adults. Although much has been written about ways to best care for older adults at risk for delirium, experts suggest that time constraints, lack of awareness about current research, lack of authority to change practice, and inadequate skills for critically reviewing research contributes to the failure to adopt best practiced strategies (Covinsky, et, al, 1998; Hutchinson & Johnston, 2004).

As discussed earlier, attempting to work with an older population, in the current system, is leading to nurse frustration, longer lengths of stay, and more serious outcomes for older adults. Nevertheless, if the giving of good nursing care to older adults could be structured more like a children's slide, with the appropriate systems as the sides of the slide, if would make it easier to give good care and difficult to go against the best interests of the older adult patients. As it currently exists, the system resembles a backwards slide, where nurses must climb upwards to provide care that is only remotely appropriate to the needs of older adults. A logical next step would be to structure our system to address the care needs of the population we currently serve. We must acknowledge the fact that we are taking care of older adults and then look beyond our presently held beliefs about being old, rather than giving care for them in an unspoken vortex. Also, our valuing of older adults should consider putting into place enough people, time, education, protocols, and support resources to change the direction of the slide. By delivering care in such a manner, the lengths of stays for older adults would

likely diminish, outcomes would improve, and nurses may be able to give the care they wish were possible.

Unless we can speak about the incidence of a problem, we would not likely be able to purposefully enact prevention strategies. Thus, in acknowledging that we are caring for an older population, we would be more likely to identify and address how to best meet their needs. The nurses said, being faster with the old, is not necessarily being more efficient; more people, education, and time are needed to be truly efficient with this population.

Limitations

The study was conducted at a 241-bed regional hospital, and by its size would be reflective of a large portion of hospitals in British Columbia. The catchment area for this hospital included a large portion of older adults, and is one of the most under-funded areas in the province with regards to health services (Statistics, 2001; Statistics Canada, 1996). These economic and demographic conditions may have had an effect on the resources available to support nursing care, which could then have had an effect on the nurses' experience of caring for hospitalized older adults. While these particular conditions may have made the study less generalizable to other settings, at the present, diminishing recourses are a reality in health care, which could allow this setting to be more generalizable.

The hospital culture at this institution is known to be fraught with labor difficulties. For example, during the British Columbia of Nurses Union (BCNU) strike in 2000, nurses at this institution opted to remain on strike even when asked by BCNU to return to work. In addition, the hospital boasts one of the most non-conformist groups of

physicians in the province. In 1993, the local physicians were the first group to opt out of the medical plan. These factors affect the culture of the hospital and the way in which nurses deliver care in this particular setting, and thus, may affect the generalizability of the study findings.

As the investigator, I am well-known within the healthcare context of this community. My reputation as a nurse may have affected the participants' willingness to share their experiences. This familiarity may have caused them to be more willing to share their experiences, as indicated by the comment of one of the participants. Alternatively, participants may have been less willing to divulge certain experiences, knowing that they will likely be in a continued professional relationship with me after the study is complete. For example, in observing non-verbal cues, I noticed that some participants had downcast eyes when they described some of the practices, or their lack of knowledge.

Another limitation of the study is that the stories being told about the clinical situations are events that are remembered and reconstructed, and do not include every detail that happened. As the nurses narrate, a cognitive process of making meaning of the events also occurs (Sandelowski, 1991). Thus, as the researcher, I made every effort to pay attention to the unspoken words, and to ask questions to get at the deeper story. Actions taken by nurses in a particular situation are directed by their concerns. Expert nurses, who may be accustomed to acting in a particular way in a given situation, may find it difficult to unravel their decision-making process. Thus, as researcher, I needed to ask about the details of a situation, referring to all possible interpretations and courses of

action that were considered by the nurses before they chose the action (Benner, et al., 1996).

Another limitation of the study was the lack of young, inexperienced nurses. The youngest participant was 32 years of age, and the least amount of nursing experience was 6 years. Since the nurses in this study described how their practice had changed over time and with experience, quite possibly, younger, less experienced nurse participants would describe different kinds of strategies and perspectives. Considering that all of the participants had at least five years of nursing experience, this study does not capture data from the novice nurse. According to current demographics, the average age of nurses in BC is the late-40s, so the sample in this study may still be a close representation of the workplace reality.

Implications for Research

This study has raised issues that could be examined more carefully through further research. For example, the ages of nurses, information about hypoactive delirium, and nursing interventions such as the use of sitters, or the "executive suite," Could be explored in more detail.

In this study, participants were predominantly experienced older nurses, with an average age of 48.8 years. While this age is close to the average for BC nurses, younger and inexperienced nurses were not represented in this study. Additional studies could explore the experience of younger, inexperienced nurses in working with older adults. Another area for further study would involve more detailed questions about hypoactive delirium, which was not clearly identified from the data mentioned here. Secondary analysis of the data could also identify the taxonomy of current nursing interventions

with older adults. The nurses referred to the effective use of sitters and bringing patients to the desk at night, two methods that have received little attention in other studies. More exploration of the usefulness of these strategies may help to inform nursing practice. Finally, to have a fuller picture of care for hospitalized older adults at risk for delirium, an ethnographic study that includes participant observation would further illuminate the context and culture in which nursing interactions occur.

Summary

Caring for older adults at risk for delirium is a vital and challenging part of nurses' work. Nurses access to patients in hospitals put them in a key position to identify delirium. Recognizing and treating delirium is a vital part of caring for older adults due to the potential for serious consequences to the patient, increasing frustration amongst nurses, and inefficiencies in the hospital system. However, it is challenging to care for hospitalized older adults due to the limited time available in the fast paced hospital environment. In response to the limited time and a system that is geared for a younger population, nurses employ safety at all costs leading them to choose interventions which are not always in the best interest of the older adult. Also influencing care of older adults is nurses' beliefs that all old people are confused. Perhaps in actual fact, we as nurses are confused about old people. Nurses mediate their practice through nurse to nurse interactions and without a spoken acknowledgment that we are caring for an older population having complex needs. To move forward with the idea to improve care of older adults, we need to recognize that our population is old, and challenge our assumptions about old people.

REFERENCES

Abraham, I., Bottrell, M.M., Fulmer, T., & Mezey, M.D. (1999). *Geriatric nursing protocols for best practice.* New York: Springer Publishing Company.

Abraham, J.L. (2000). Advances in pain management for older adult patients. *Clinics in Geriatric Medicine. 16*(2), 269-311.

Akid, M. (2001). The last resort, *Nursing Times. 97*(46), 12-13.

American Heart Association. (1990). *Textbook of advanced cardiac life support.* 2nd ed. Dallas, Texas: Author.

American Psychiatric Association. (1980). *Diagnostis and statistical manual of mental disorders.* 3rd ed. Washington, DC: Author.

American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders.* 4th ed. Washington, DC: Author.

Armstrong-Esther, C.A., Sandilands, M.L., & Miller, D. (1989). Attitudes and behaviors of nurses towards the elderly in an acute care setting. *Journal of Advanced Nursing, 14,* 34-41.

Baumbusch, J., & Goldenberg, D. (2000). The impact of an aging population on curriculum development in Canadian undergraduate nursing education. *Perspectives,* 24(2), 8-14.

Baumbusch, J.L., & Andrusyszyn, M.A. (2002). Gerontological content in Canadian baccalaureate nursing programs: Cause for concern? *Canadian Journal of Nursing Research,* 34(1), 119-129.

Beck, C.T. (1996). Nursing students' experiences caring for cognitively impaired elderly people. *Journal of Advanced Nursing, 23,* 992-998.

Benner, P., Tanner, C.A., & Chesla, C.A. (1996). Background and Methods. In *Expertise in Nursing Practice: Caring, Clinical Judgment and Ethics*. (pp. 351-372). Springer: New York.

Bernard, M. (1998). Backs to the future? Reflections on women, aging and nursing. *Journal of Advanced Nursing, 27*, 633-640.

Berrios, G.E. (1981). Delirium and confusion in the 19th century: A conceptual history. *British Journal of Psychiatry, 139,* 439-449.

Black, J.M., Hawks, J.H., & Keene, A.M. (2001). *Medical-surgical nursing: Clinical management for positive outcomes.* 6th ed. Philadelphia: W.B. Saunders Company.

Bond, S.M., Neelon, V.J., & Belyea, M.J. (2002). Patterns of delirium in hospitalized older persons with metastatic cancer, retrieved June 1, 2002 from http://www.bond/email/unc/edu/ca.

Bottorff, J.L., Johnson, J.L., Irwin, L.G., & Ratner, P.A. (2000). Narratives of smoking relapse: The stories of postpartum women. *Research in Nursing & Health,* 23, 126-134.

Boyle, J.S. (1994). Styles of Ethnography in Morse, J.M. (Eds), *Critical Issues in Qualitative Research Methods (159-185).* Thousand Oaks, California: Sage Publications.

Branski, S.H. (1998). Delirium in hospitalized geriatric patients. *American Journal of Nursing, 98*(4),16D-16L.

Burns, N., & Grove, S.K. (1997). *The practice of Nursing Research: Conduct Critique, & Utilization*, 3rd edition. W.B. Saunders Company, Philadelphia.

Campbell, M. (2000). Knowledge, gendered subjectivity, and the restructuring of health care: the case of the disappearing nurse. In S.M. Neysmith (Ed.), *Restructuring Caring Labour: Discourse state practice and everyday life,* Toronto: Oxford University Press, (pp. 186-208).

Campbell, M.L. (1994). The structure of stress in nurses' work. In Bolaria, B.S. & Dickinson, H.D. (Ed.), *Health, Illness, and Health Care in Canada, 2nd ed.* (pp. 592-608). Place: Harcourt Brace and Company.

Chan, D., & Brennan, N.J. (1999). Delirium: Making the diagnosis, improving the prognosis. *Geriatrics, 54*(3), 28-42.

Cherkow, H., Bergman, N.J., Schipper, H.M., Gauthiers, S., Bouchard, R., Fontaine, S., & Clarfield, A.M. (2001). Assessment of suspected dementia. *The Canadian Journal of Neurological Sciences, 28* (Feb), S28-S39.

Cohen, E.S. (2001). The complex nature of ageism: What is it? who does it? who perceives it?. *The Gerontologist, 41*(5), 576-577.

Covinsky, K., Palmer, R.M., Kresevic, D.M., Kahana, E., Counsell, S.R., Fortinsky, R.H., & Landefeld, C.S. (1998). Improving functional outcomes in older patients: Lessons from an acute care for older adults unit. *Journal on Quality Improvement, 24*(2), 63-76.

Csokasy, J. (1999). Assessment of acute confusion: Use of the NEECHAM confusion scale. *Applied Nursing Research, 12*(1), 51-55.

Dolan, M.M., Hawkes, W.G., Zimmerman, S.I., Morrison, R.S., Gruber-Baldini, A.L., Hebel, J.R., & Magaziner, J. (2000). Delirium on hospital admission in aged hip

fracture patients: Prediction of mortality and 2- year functional outcomes. *Journal of Gerontology: Medical Sciences, 55A*(9), 527-534.

Dunleavy, J., Shamian, J., Thomson, D. (2003). Handcuffed by cutbacks. *Canadian Nurse,* 99(3), 23-26.

Elie, M., Rousseau, F., Cole, M., Primeau, F., McCusker, J., Bellavance, F. (2000). Prevalence and detection of delirium in elderly emergency department patients. *Canadian Medical Association Journal, 163*(8), 977-981.

Ely, E.W., Margolin, R., Francis, J., May, L., Truman, B., Dittus, R., Speroff, T., Gautam, S., Bernard, G.R., Inouye, S.K. (2001). Evaluation of delirium in critically ill patients: Validation of the confusion assessment method for the intensive care unit (CAM-ICU). *Critical Care Medicine,* 29(7), 1370-1379.

Espino, D.V., Jules-Bradley, A.C.A., Johnston, C.L., & Mouton, C.P. (1998). Diagnostic approach to the confused elderly patient. *American Family Physician, 57*(6), 1358- 1366.

Evans, L.K. & Strumpf, N.E. (1991). Myths and facts about restraints for the elderly, *Nursing 91,* 21(1), 24.

Evans, D., Wood, J., Lambert, L. (2003). Patient injury and physical restraint devices: A systematic review. *Journal of Advanced Nursing,* 41(3), 274-282.

Feldman, H., & Kertesz, A. (2001). Diagnosis, classification and natural history of degenerative dementia's. *The Canadian Journal of Neurological Sciences, 28*(Feb), S17-23.

Fick, D., & Foreman, M. (2000). Consequences of not recognizing delirium superimposed on dementia in hospitalized elderly individuals. *Journal of Gerontological Nursing,* January, 30-40.

Folstein, M.F., Folstein, S.E., & McHugh, P.R. (1975). Mini-mental state: a practical method for grading the cognitive state of patients for clinicians. *Journal of Clinical Psychology,* 12, 189-198.

Foreman, M.D. (1993). Acute confusion in the elderly. *Annual Review of Nursing Research,* 11, 3-30.

Foreman, M.D., Flentcker, K., Mion, L.C., Simon, L., & the NICHE faculty. (1996). Assessing cognitive function. *Geriatric Nursing, 17*(5), 228-233.

Foreman, M.D., Mion, L.C., Tryostad, L. Fletcher, K., & the NICHE faculty. (1999). Standard of practice protocol: Acute confusion/delirium. *Geriatric Nursing, 20*(3), 147-151.

Foreman, M.D., Wakefield, M., Culp, K., & Milisen, K. (2000). Delirium in elderly patients: An overview of the state of the science. *Journal of Gerontological Nursing, April*, 12-19.

Frengley, J.D., & Mion, L.C. (1998). Physical restraints in the acute care setting: Issues and future direction. *Clinics in Geriatric Medicine, 14*(4), 727-743.

George, J., Bleasedale, S., & Singleton, S.J. (1997). Causes and prognosis of delirium in elderly patients admitted to a district general hospital. *Age and Aging, 26,* 423-427.

Guba, E.G., & Lincoln. (1994). Competing paradigms in qualitative research. In N.K. Denzin, & Y.S. Lincoln (Eds.) *Handbook of qualitative research,* (pp. 105-117). Newbury Park: Sage.

Guba,E.G., & Lincoln. (1991). *Effective evaluation: Improving the usefulness of evaluation results through responsive and naturalistic approaches.* San Francisco: Jossey-Bass Publishers.

Guttman, R. (1999). Case management of the frail elderly in the community. *Clinical Nurse Specialist, 13*(4),174-178.

Hammersley, M., & Atkinson, P. (1995). *Ethnography: Principles in Practice,* 2nd Edition. Routkedge; London.

Helmuth, A.M. (1995). Nurses' attitudes toward older persons on their use of physical restraints. *Orthopaedic Nursing, 14*(2), 43-51.

Hirst, S.P., King, T, & Church, J. (1996). The emergence of gerontological nursing education in Canada. *Geriatric Nursing, 17*(3), 120-122.

Horowitz, B.P., Savino, D., & Krauss, A. (1999). Special feature: Ageism and implications for gerontic occupational therapy practice. *Topics in Geriatric Rehabilitation, 15*(2), 71-78.

Hunt, G. (1997). Moral crisis, professionals and ethical education. *Nursing Ethics, 4*(1), 29-38.

Hutchinson, A.M., & Johnson, L.(2004). Bridging the divide: A survey of nurses' opinions regarding barriers to, and facilitators of, research utilization in the practice setting. *Journal of Clinical Nursing,* 13(3), 304-318.

Ignatavicius, D. (1999). Resolving the delirium dilemma. *Nursing99, 29*(10), 41-46.

Ingersoll, G.L., Kirsh, J.C., Merk, S.E., & Lightfoot, J. (2000). Relationship of organizational culture and readiness for change to employee commitment to the organization. *Journal of Nursing Administration.* 30(1), 11-20.

Inouye, S.K. (1998). Delirium in hospitalized older patients. *Clinics in Geriatric Medicine, 14*(4), 745-764.

Inouye, S.K., Bogardus, S.T., Charpentier, P.A., Leo-Summers, L., Acampora, D., Hoford, T.R., & Cooney, L.M. (1999). A multicomponent intervention to prevent delirium in hospitalized older patients. *The New England Journal of Medicine, 340*(9), 669-676.

Inouye, S.K., Foreman, M.D., Mion, L.C., Katz, K.H., & Cooney Jr., L.M. (2001). Nurses' recognition of delirium and its symptoms: Comparison of nurse and researcher ratings. *Archives of Internal Medicine,* Nov 12, retrieved June 1, 2002 from Proquest Nursing Journals.

Inouye, S.K., Rushing, J.T., Foreman, M.D., Palmer, R.M., & Pompei, P. (1998). Does delirium contribute to poor hospital outcomes? *Journal of General Internal Medicine,* 13 (April), 234-243.

Inouye, S.K., vanDyck, C.H., Alessi, C.A., Balkin, S., Siegal, A.P., Horwitz, R.I. (1990). Clarifying confusion: The confusion assessment method. *Annals of Internal Medicine,* 113, 941-948.

Insel, K.C., & Badger, T.A. (2002). Deciphering the 4 D's: cognitive decline, delirium, depression, and dementia – a review. *Journal of Advanced Nursing, 38* (4), 360-368.

Jacobzone, S. (2000). Coping with aging: International challenges. *Health Affairs*, 19(3), p. 213-225.

Jagmin, M.G. (1998). Postoperative mental status in elderly hip surgery patients. *Orthopedic Nursing,* 17(6), 32-42.

Joy, J.P., Carter, D.E., & Smith, L. N., (2000). The evolving educational needs of nurses caring for the older adult: A literature review. *Journal of Advanced Nursing*, 31(5), 1039-1045.

Kelchner, E.S. (1999). Ageism's impact and effect on society: Not just a concern for the old. *Journal of Gerontological Social Work, 32*(2), p. 85-100.

Kleinpell-Nowell, R. (2000). Strategies for assessing outcomes in the elderly in acute care. *Advanced Practice in Acute and Critical Care,* 11(3), 442-452.

Kotter, J.P. (1996). *Leading change.* Boston Massachusetts: Harvard Business School Press.

Kresevic, D.M., Counsell, S.R., Covinsky, K., Palmer, R., Landefeld, C.S., Holder, C., & Beeler, J. (1998). A patient-centered model of acute care for older adults. *Nursing Clinics of North America,* 33(3), 515-526.

Krichbaum, K.E., Pearson, V., & Hanscom, J. (2000). Better care in nursing homes: Advanced practice nurses' strategies for improving staff use of protocols. *Clinical nurse Specialist*, 14(1), 40- 46.

Landefeld, C.S., Palmer, R.M., Kresevic, D.M., Fortinsky, R.H., & Kowal, J. (1995). A randomized trial of care in a hospital medical unit especially designed to improve the functional outcomes of the acutely ill older patients. *The New England Journal of Medicine,* 332, p. 1338-1344.

Lang, M.M. (2001). Screening for cognitive impairment in the older adult. *Nurse Practitioner,* 26(11), 26-43.

Levin, J., & Levin, W.C. (1980). *Ageism: Prejudice and discrimination against the elderly.* Belmont, California: Wadsworth Publishing Company.

Levy, R. (2002). Eradication of ageism requires addressing the enemy within. *The Gerontologist* (5), 578-579.

Lindesay, J., Macdonald, A., & Starke,I. (1990). *Delirium in the Elderly.* Oxford: Oxford University Press.

Lipowski, Z.J. (1990). *Delirium: Acute confusional states.* New York: Oxford University Press.

Lookinland, S., & Anson, K. (1995). Perpetuation of ageist attitudes among present and future health care personnel: implications for older adult care. *Journal of Advanced Nursing,* 21, 47-56.

Lusk, S.L., Williams, R.A., & Hsuing, S. (1995). Evaluation of the facts on aging quizzes I & II. *Journal of Nursing Education,* 34(7), 317-323.

Marcantonio, E.R., Goldman, S.M.L., Orav, E.J., Cook, E.F., & Lee, T.H. (1998). Association of introperative factors with the development of postoperative delirium. *The American Journal of Medicine,* 105, 380-384.

Martin, J.H., & Haynes, C.H. (2000). Depression, delirium, and dementia in the elderly patient. *American Operating Room Journal,* 73(2), 209-223.

Matthiesen, V., Sivertsen, L., Foreman, M.D., & Cronin-Stubbs, D. (1994). *Orthopedic Nursing,* 13(2), 21-29.

Mayhew, P.A., Christy, K., Berkebile, J., Miller, C., & Farrish, A. (1999). Restraint reduction: Research utilization and case study with cognitive impairment. *Geriatric Nursing,* 20(6), 305-308.

McCarthy, M.C. (2003). Detecting acute confusion in older adults: Compairing clinical reasoning of nurses working in acute, long-term, and community health care environments. *Research in Nursing and Health,* 26(3), 203-212.

McKiel, E. (2002). Impact of organizational restructuring on nurses' facilitation of parental participatory care. Canadian Journal Nursing Leadership, 15(1), 14-17. *Medicine*, 13 (April), 234-242.

McKinlay, A., Cowan, S. (2003). Student nurses' attitudes towards working with older patients. *Journal of Advanced Nursing,* 43(3), 298-309.

Metes, J., Culp, K., Maas, M., & Rantz, M. (1999). Acute confusion indicators: Risk factors and prevalence using MDS data. *Research in Nursing and Health,* 22, 95-105.

Michota, S. (1995). A hospital-based skilled nursing facility: A special place to care for the elderly. *Geriatric Nursing,* 16(2), 64-66.

Michota, S. (1995). A hospital-based skilled nursing facility: A special place to care for the elderly. *Geriatric Nursing* 16(2), p. 64-66.

Miller, J. (1996). A clinical project to reduce confusion in hospitalized, older adults. *Medical Surgical Nursing,* 5(6), 436-460.

Miller, J., Neelon,V., Champagne, M., Bailey, D., Ng'andu, N., Belyea, M., Jarrell, E., Montoya, L., & Williams, A. (1997). The assessment of acute confusion as part of nursing care. *Applied Nursing Research,* 10(3), 143-151.

Miller, S.K. (2002). Acute care of the older adult units: A positive outcomes case study. *Advanced Practice in Acute and Critical Care,* 13(1), 34-42.

Mion, L.C., Strumpt, N., & the NICHE faculty. (1994). Use of physical restraints in the hospital setting: Implications for the nurse. *Geriatric Nursing, 15*(3), 127-132.

Morse, J.M., & Field, P.A. (1995). *Qualitative Research Methods for Health Professionals,* 2nd edition, Thousand Oaks: Sage publications.

Moses, A. (1998). Early discharges increase the burden on community nurses, erodes the quality of care. *Update,* 17(3), 27.

Neelon, V.J., Champagne, M.T., Carlson, J.R., & Funk, S.G. (1996). The Neecham confusion scale: Construction, validation, and clinical testing. *Nursing Research,* 45(6), 324-330.

Neelon, V.J., Champagne, M.T., McConnell, E., Carlson, J., & Funk, S.G. (1992). Use of the Neecham confusion scale to assess acute confusional states of hospitalized older patients. In S.G. Funk, E.M. Tornquist, M.T. Champagne, & R.A. Wiese (Ed.), *Key Aspects of Elder Care: Managing falls, Incontinence, and Cognitive Impairment* (pp. 278-289). New York: Springer.

Nichols, M. (1998, June 15). Getting discharged earlier. *Macleans,* 26.

Ottem, P. (2002). *Statistics 2002 on British Columbia Registered Nurses.* Registered Nurses Association of British Columbia, telephone conversation August 25, 2004.

O'Keefe, S.T., & Lavan, J.N. (1999). Clincial significance of delirium subtypes in older people. *Age and Aging,* 28, 115-119.

O'Keeffe, S.T. (1999). Clinical subtypes of delirium in the elderly. *Dementia Geriatric Cognitive Disorder,* 10, 380-385.

Palmer, R.M., Landefeld, C.S., Dresvic, D., & Kowal, J. (1994). A medical unit for the acute care of the elderly. *Journal of American Geriatrics Society,* 42, 545-552.

Palmore, E. (2001). The ageism survey: First findings. *The Gerontologist,* 41(5), 572-575.

Panno, J.M., Kolcaba, K., Holder, C. (2000). Acute care for older adults (ACE): A holistic model for geriatric orthopedic nursing care. *Orthopedic Nursing,* 19(6), 53-60.

Patterson, C., Gauthier, S., Bergman, H., Cohen, C., Feighner, J.W., Feldman, H., Grek, A., & Hogan, D.B. (2001). The recognition, assessment and management of dementing disorders. *The Canadian Journal of Neurological Sciences,* 28, S3-16.

Picard, A. (2000). *Critical care: Canadian nurses speak for change.* Toronto, Canada: Harper-Collins.

Phillips,E. (2004). Managing risk with patient restraints. *Canadian Nurse,* 100(1), 10-11.

Porter-O'Grady, T. (1999). Quantum Leadership: New roles for a new age, *Journal of Nursing Administration,* 29(10), 37-42.

Pudelek, B. (2002). Geriatric trauma: Special needs for a special population. *Advanced Practice in Acute and Critical Care*, 13(1), 61-72.

Pugh, L.C. (1999). Assessment of acute confusion: Use of the NEECHAM confusion scale. *Applied Nursing Research,* 12(1), 51-55.

Rankin, J. (2001). Texts in action: How nurses are doing the fiscal work of health care reform. *Studies in Cultures, Organizations, and Societies*, 7, 251-267.

Rapp, C.G., Onega, L.L., Tripp-Reimer, T., Mobily, P., Wakefield, B., Kundrat, M., Akins, J., Wadle, K., Mentes, J.C., Culp, K., Meyer, J., & Waterman, J. (2001).

Training of acute confusion resource nurses. *Journal of Gerontological Nursing,* April, 34-40.

Rapp, C.G., Mentes, J.C., & Titler, M.G. (2001). Acute confusion/delirium protocol. *Journal of Gerontological Nursing,* April, 21-33.

Rapp, C.G., Wakefield, B., Kundrat, M., Mentes, J., Tripp-Reimer, T., Culp, Mobily, P., Akins, J., & Onega, L.L. (2000). Acute confusion assessment instruments: Clinical versus research usability. *Applied Nursing Research,* 13(1), 37-45.

Rasin, J.H. (1990). Confusion. *Nursing Clinics of North America*, 25(4), 909-918.

Rawsky, E. (1998). Review of the Literature on falls among the elderly. *Image: Journal of Nursing Scholarship, 30*(1), 47-52.

Registered Nurses Association of British Columbia (RNABC). (1998). *Position Statement: Clinical Nurse Specialist*, Author.

Ribby, K.L., & Cox, K.R. (1996). Development, implementation, and evaluation of a confusion protocol. *Clinical Nurse Specialist,* 10(5), 241-247.

Robinson, J. (2003, Spring/March). Reflecting on Ageism in gerontological nursing practice. *Gerontological Nurses Group of British Columbia Newsletter,* 3-4.

Robertson, M.H.B., & Boyle, J.S. (1984). Ethnography: contributions to nursing research. *Journal of Advanced Nursing.* 9, 43-49.

Rockwood, K., Cosway, S., Carver, D., Jarrett, P., Stadnyk, K. (1999). The risk of dementia and death after delirium. *Age and Aging,* 28(6), 551-560.

Rogers, A.C., & Gibson, C.H. (2002). Experiences of orthopaedic nurses caring for elderly patients with acute confusion. *Journal of Orthopaedic Nursing,* 6(1), 9-17.

Rosen, S.L. (1994). Managing delirious older adults in the hospital. *Medical Surgical Nursing,* 3(3), 181-189.

Sands,L.P., Phinney, A., & Katz, I.R. (2000). Monitoring Alzheimer's patients for acute changes in cognitive functioning. *American Journal of Geriatric Psychiatry,* 8(1), 47-56.

Sandelowski, M. (1986). The problem of rigor in qualitative research. *Advances in Nursing Science,* 27- 37.

Sanders, A.B., (2002). Missed delirium in older emergency department patients: A quality of care problem. *Annals of Emergency Medicine,* 39(3), 338-341.

Sands, L.P., Phinney A., & Katz, I.R. (2000). Monitoring alzheimer's patients for acute changes in cognitive functioning. *American Journal of Geriatric Psychiatry,* 8(1), 47-56.

Schuurmans, M.J., Duursma, S.A., & Shortridge-Baggett, L.M. (2001). Early recognition of delirium: Review of the literature. *Journal of Clinical Nursing,* 10(6), 721-760.

Segatore, M., & Adams, D. (2001). Managing delirium and agitation in elderly hospitalized orthopaedic patients: Part 2 – Interventions. *Orthopaedic Nursing,* 20(2), 61-74.

Seymour, B., Kinn, S., & Sutherland, N. (2003). Valuing both critical and creative thinking in clinical practice: Narrowing the research-practice gap. *Journal of Advanced Nursing,* 42(3), 288-296.

Simon, L., Jewell, N., & Brokel, J. (1997). Management of acute delirium in hospitalized elderly: A process improvement project. *Geriatric Nursing,* (4), 150-154.

Spradley, J.P. (1979). *The Ethnographic Interview.* Philadelphia: Harcourt Brace Jovanovich College Publishers.

Spradley, J.P., & McCurdy, D.W. (1972). *The cultural experience: Ethnography in complex society.* Chicago: Science Research Associates, Inc. (chapter 4- pp. 59-77).

Statistics Canada. (1996). *City of Nanaimo Pcensus Project*, Author.

Statistics Canada. (2001). retrieved March 5, 2003 from http://www.statisticscanada.ca.

Statistics Canada. (2002). retrieved June 1, 2002 from http://www.statisticscanada.ca.

Stone, J.T., Wyman, J.F., & Salisbury, S.A. (1999). *Clinical gerontological nursing: A guide to advanced practice.* (2nd), Philadelphia: W.B. Saunders Company.

Sullivan-Marx, E.M. (2001). Achieving restraint-free care of acutely confused older adults. *Journal of Gerontological Nursing,* April, 57-61.

Swearer, J.M. (2001). Editorial comment: Cognitive function and quality of life. *Stroke,* Dec. retrieved June 1, 2002 from proquest nursing journals.

Tierney, A.J., Lewis, S.J., & Vallis,J. (1998). Nurses' knowledge and attitudes towards older patients admitted to acute orthopaedic wards. *Journal of Orthopaedic Nursing,* 2, 67-75.

Varcoe, C., & Rodney, P. (2002). constrained agency: The social structure of nurses' work. In Bolaria, B.S., & Dickinson, H.D. (Ed.), *Health, Illness, and Health Care in Canada 3rd Ed.* (pp. 102-128). Canada: Nelson Thomson Learning.

Voyer, P., & Sych-Norrena, L. (2003). Challenges in emergency room: care for he elderly, *Canadian Nurse,* 99(1), 22-24.

Wakefield, B.J. (2002). Behaviors and outcomes of acute confusion in hospitalized patients. *Applied Nursing Research,* 15(4), 209-216.

Ward, D. (2000). Ageism and the abuse of older people in health and social care. *British Journal of Nursing,* 9(9), 560-566.

Waterworth, S. (2003). Time management strategies in nursing practice. Journal of *Advanced Nursing Practice,* 43(5), 432-440.

Wong, J., Wong, S., & Brooks, E. (2002). A study of hospital recovery pattern of acutely confused older patients following hip surgery. *Journal of Orthopaedic Nursing,* 6(2), 68-78.

Yeaw, E.M.J., & Abbatte, J.H. (1993). Identification of confusion among the elderly in an acute care setting. *Clinical Nurse Specialist,* 7(4), 192-197.

APPENDIX I

INTERVIEW QUESTIONS

1) What can you tell me about caring for the frail older adult population?
2) What are your concerns in caring for this population?
3) I frequently hear the word "confusion" in practice; what does it mean when you hear it?
4) Describe the education you have received about delirium in the older adult?
5) How do you recognize which older adults are acutely confused (delirious)?
6) What do you do to take care of these confused/ delirious older adults? Why?
7) If I were a new nurse on your unit, what would be essential for me to know, do, and be to care for this population?
8) What do you think would assist you in working more effectively with this population?
9) Tell me about a situation where you were caring for an older adult that was confused (delirious)?
10) Tell me what you were thinking, and considering when you were caring for that confused (delirious) older adult?

Consent:

I understand that I can ask any questions at any time from either the researcher or her faculty advisor. I understand that my participation is voluntary with no direct benefits from participating in this study. I understand that I can withdraw from the study at any time.

I have read the above information and had the opportunity to ask questions to clarify the study and my participation in it.

I have received a copy of this consent form for my own records.

I consent to participate in this study.

_____

Signature of participant Date

_____