AN EVALUATION OF NURSES’ KNOWLEDGE AND ATTITUDES TOWARDS NONPHARMACOLOGICAL TREATMENTS FOR CONFUSION

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ABSTRACT

**Purpose:** To explore nurses reports of how they manage confusion in hospitalized elders and to describe barriers and facilitators to providing care.

**Methods:** Focus group methodology was used; group sessions were audio-recorded and transcribed verbatim. Seventeen nurses participated in three-60 minute sessions in a central Pennsylvania hospital. Data were analyzed using content and thematic analysis.

**Results:** Three broad themes were identified: Our Duty is to Protect, Finding Your Balance, and Confusion is Normal. Nurses (mean age = 43 years, mean years of experience = 13 years) did not have a formal way to assess delirium or to choose non-pharmacological interventions. They were often conflicted about how to balance the care of patients with confusion.

**Conclusions:** In this context, a prominent theme was the need for nurses to protect themselves and their patients. Nurses used a variety of approaches to balance the demands of their patients with confusion. Implications for practice and research will be discussed.
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Chapter 1

Introduction

Confusion is a common finding for nurses caring for elderly patients in the hospital. Although this symptom makes nursing care for the patient more challenging, confusion is much more troublesome for the patient and their family. This is because humans are social beings; it is their relationships, interactions with others, memory, and emotions that makes each individual unique. What would it be like to try to hold down an occupation and have trouble remembering people’s names who you have known for many years? How would it feel to be in a car and one day have trouble remembering how to get to familiar places? Unfortunately, that is what happens to millions of people every day when dementia gradually takes over their brains. Although, many of these individuals do attain very meaningful lives, due to the progressive onset of the brain disorder, many of these symptoms often go unnoticed and thus, these people are left untreated for many years until the disease reaches its advanced stages (Kennedy, 2003).

There are 5.3 million people who suffer from dementia in the United States, and every 70 seconds a new person in the America is diagnosed with Alzheimer’s dementia (Alzheimer’s Association, 2010). In other words, 13% of adults older than 65 and 16% of women and 11% of men greater than 71 years of age are affected with this devastating brain illness (Alzheimer’s Association, 2010). According to Diagnostics Criteria from DSM-IV, dementia is defined as “the development of multiple cognitive deficits manifested by both memory impairment (impaired ability to learn new information or to recall previously learned information) and one (or more) of the following cognitive disturbances: aphasia, apraxia, agnosia, and a disturbance in executive functioning” (1994). People with impaired brain functioning and lower levels of cognition often require enormous amounts of nursing care. Annually, $172 billion is spent on costs related to dementia care including: nursing care, medical bills, institutionalization, agency costs, home care, and lost productivity (Alzheimer’s Association, 2010).
To make matters more complex, a diagnosis of dementia dramatically increases a person’s risk of also developing an acute confusion or delirium (Voyer, Cole, McCusker, & Belize, 2006). According to the DSM-IV, delirium is a symptom, not a disease, and can be defined as “a change in cognition (such as memory deficit, disorientation, or language disturbance) or the development of a perceptual disturbance that is not better accounted for by a preexisting, established, or evolving dementia” (1994). Research has indicated that anywhere from 22% to 89% of persons with dementia in the community and acute care hospital settings suffer from delirium superimposed on dementia (DSD) (Fick, Agostini, & Inouye, 2002). DSD leads to higher rates of rehospitalization (Fick & Foreman, 2000), increased risks of institutionalization, greater costs and need for medical care (Fick, Kolanowski, Waller & Inouye, 2005), and an elevated rate of mortality (Leslie, Zhang, Bogardus et al., 2005; Leslie, Zhang, Holford, et al., 2005; Voyer et al., 2006). Despite these poor outcomes, nurses and physicians are failing to recognize the subtle changes in confusion that accompanies DSD, and for patients whose mental capacity and brain function are already reduced significantly, DSD can have many devastating complications (Fick, Agostini, & Inouye, 2002). In some studies the rate of unrecognized delirium in patients with dementia was as high as 88% (Fick, Agostini, & Inouye, 2002). This is devastating because delirium is an acute illness and can be reversed if detected and treated early. However, when medical professionals fail to notice these subtle changes, no treatment action is taken and poor outcomes are the result.

Physicians often prescribe central nervous system (CNS) altering medications for managing confusion related to either dementia or delirium. According to Alanon et al., these drugs are helpful in alleviating the difficult behaviors that accompany confused states, such as: (a) changes in mood, (b) decreased memory, (c) wandering, (d) repetitive speech and (e) resistance to authority (2006). However, these drugs also have numerous negative side effects, including: (a) further increased rate of delirium, (b) fatigue, (c) syncope, (d) altered consciousness, (e) constipation, (f) falls, (g) fractures, and (h) mortality (Fick et al., 2007).
Though we lack strong evidence on many nonpharmacological treatments, some nonpharmacological therapies, such as cognitive stimulation and music therapy have shown to be effective in improving thinking, memory, agitation, and neuropsychological performance in confused patients (Valenzuela & Sachdev, 2009). These techniques are often recommended as first line treatment, however, they are rarely utilized in the clinical setting (Valenzuela & Sachdev, 2009). Despite being a safe, noninvasive in approach, and having great potential for positive results, it seems that nurses and other health care professionals have limited knowledge and little if any training in this area (Brolinson, Price, Ditmyer & Reis, 2001). The combination of unknown effectiveness, limited time, and inexperience are all factors that may cause nonpharmacological treatment methods to be frequently disregarded in the clinical setting (Brolinson, Price, Ditmyer & Reis, 2001). In the end, not only are the patients suffering, but everyone involved in the patient’s care is affected as well.

**Problem**

It becomes clear that the quality of life of people with dementia is being jeopardized due to failure to properly recognize delirium, ineffective medication use, and limited knowledge on managing confusion by health care professionals. Despite the extremely high prevalence of confusion within the elderly population across the world and the devastating symptoms of dementia and delirium, little research is being done to determine alternative methods of symptom management. It is of utmost importance to determine what can be done in the clinical setting to improve the care of these individuals. Confusion is easy to recognize in most patients, however when a patient presents with delirium on top of dementia, nurses and physicians are struggling to identify these more subtle changes (Fick & Foreman, 2000). Thus, patients are at risk for even greater complications. Drug therapy, typically American’s quick fix for most health problems, is falling short of expectations (Smith et al., 2008). Therefore, other treatment options need to be assessed. From looking at cancer research, holistic, nonpharmacological measures have been very successful in alleviating many of the negative symptoms that accompany terminal illnesses (Fitch et. al, 1999). However, these methods require knowledge and training to perfect. Like cancer, with dementia there is no cure, but with
education, nurses may be able to treat patients’ agitation with nonpharmacological therapies. Therefore, understanding nurses’ current knowledge and perceptions toward nonpharmacological therapies appears to be the vital step in improving these patients overall quality of life.

**Purpose**

The purpose of this study is to describe nurses’ current knowledge and attitudes toward nonpharmacological treatments for confusion related to dementia, and to determine which specific therapies are currently being utilized by nurses in the acute care setting. The specific research questions are:

1. What do the terms “nonpharmacological methods” or “alternative therapy” mean to nurses?
2. What are nurses’ attitudes and feelings towards using nonpharmacological treatments for managing confusion?
3. What are some specific examples of experiences nurses have had using a nonpharmacological method of treatment?
4. In the nurses’ opinions, how effective were these therapies in alleviating the confusion presented by the patient?
5. What are the facilitators and barriers to the use of nonpharmacological therapies for confusion?

The long term objectives of this study are to design and test interventions with targeted education for nurses regarding best practice of nonpharmacological therapies for confusion in hospitalized older adults with dementia.
Chapter 2

Review of Literature

For the literature review on nurses’ attitudes towards nonpharmacological treatments of confusion, the databases MEDLINE (PubMed) and CINAL were utilized. Limits were set to include articles dating back no more than 20 years or from January, 1989 to January, 2009. In addition, both primary research studies and systematic reviews were defined in the search strategies. Keywords, such as: (a) confusion, (b) delirium, (c) dementia, (d) drug therapy, (e) nurses’ attitudes (f) nurses’ perceptions, (g) alternative therapy, and (h) nonpharmacological treatment helped to focus the search. In the end, there were no research studies specifically on the current knowledge and attitudes of nurses toward nonpharmacological treatments for confusion related to dementia, delirium, or DSD. However, the search was successful in finding studies related to: (a) delirium superimposed on dementia, (b) nurse’s knowledge of delirium and dementia, (c) the negative outcomes of current medical treatment strategies, and (d) nonpharmacological therapy.

Dementia and Delirium in Older Adults

It is common knowledge that dementia and confusion are two terms that often go hand in hand. In reality, however, the symptoms of dementia are vast and can include anything from memory loss, impaired learning and cognitive function, disorganized and repetitive speech, decline in emotional control to disorientation and behavioral and psychological disturbances (Anderson, Wendler, & Congdon, 1998). Each patient, depending on his or her level of brain capacity, emotional state, and the stage of the disease process, may present differently in the clinical setting. Due to their already altered brain function, patients with dementia are at high risk for developing acute confusion or delirium in the hospital setting (Inouye & Charpentier, 1996). When this phenomenon occurs it is termed delirium superimposed on dementia. Anywhere from 22% to 89% of patients greater than 65 years of age in the hospital and community settings present with this complication (Fick, Agostini, & Inouye, 2002). One reason for the large disparity in that statistic is that there are differences in the
quality of various studies. There is a wide variation in the research designs of different experiments and there are inconsistent criteria for determining a person’s level of confusion. (Fick, Agostini, & Inouye, 2002). Study populations and occurrence rates of dementia, differences in settings, as well as measurement tools are all elements that can affect the resultant data.

Chronic dementia is a general term that refers to a chronic, progressive disorder of brain activity and function resulting in cognitive impairment (American Psychiatric, 1994). It is a gradual process that can occur over a span of several months or many years (Reisberg, 2006). Often, it begins with problems with short term memory and difficulty learning and slowly advances to disturbed cognition, impaired language, inability to perform activities of daily living and ultimately death (Reisberg, 2006). The rate of chronic dementia in the United State is increasing at staggering rates. According to the Alzheimer’s Association (2010), today, 13% of adults greater than 65 years of age have a dementing illness, and in adults 85 years of age or greater, 50% of the population is affected by this devastating disease (Kennedy, 2003). It is predicted that within the next 40 years, the number of people with dementia will quadruple (Black et al., 2007). This high prevalence rate produces a large population that is at high risk of developing delirium (Fick & Foreman, 2000).

In contrast, delirium, or acute confusion according to Diagnostic and Statistical Manual of Mental Disorders, Third Edition, Revised, and Fourth Edition (DSM-III-R and DSM-IV), is a more short-term problem (1994). It is a “change in cognition (such as memory deficit disorientation, language disturbance) or the development of a perceptual disturbance that is not better accounted for by a preexisting, established, or evolving dementia.” (American Psychiatric, 1994). Often, identifying the underlying cause of the delirium, such as a side effect of the anesthesia related to hip replacement surgery or a symptom of a urinary tract infection, and then treating it accordingly is the best way to alleviate the confusion. Although the symptoms are similar to dementia, with delirium, the disease process has a more rapid onset of hours to days and follows a more unpredictable and changing course, most importantly is often reversible if detected and treated early (Fick, Agostini, & Inouye, 2002). When young and middle-aged adults demonstrate an altered level of consciousness and
disorientation to people, places, and events, nurses are immediately alerted to an underlying problem, considering possibilities such as electrolyte imbalances or significant drops in blood sugar. However, in the elderly, many of these patients often have already reduced levels of cognitive impairment, and thus, the onset of delirium in this population presents as less obvious, more subtle changes (Fick et al., 2007). Unless the nurse is keenly in tune to the baseline behaviors of his/her patients, these delirious episodes may go unnoticed for a substantial length of time. Time, here is key, and if not diagnosed early, delirium can create serious complications (Foreman & Grabowski, 1992). According to Fick, Agostini, & Inouye, this “acute change in mental status (characterized by fluctuating course, inattention, and disorganized thinking or altered level of consciousness) in patients with a preexisting diagnosis of Alzheimer’s dementia” is what is known as delirium superimposed on dementia (2002, p. 1724).

This fact deserves attention because according to research, in the geriatric population, delirium is associated with poor health outcomes (Fick and Foreman, 2000). Fick & Foreman demonstrated in their study that symptoms of depression, urinary incontinence, weight loss, comorbidity, and use of restraints were much more evident in patients with delirium compared to those without presentation of delirium (2000). When looking at depression alone, 50% of the patients with delirium tested positive using the Cornell Scale (Fick & Foreman, 2000). In addition, 67% of the patients with delirium were restrained once admitted to the hospital (Fick & Foreman, 2000). This is significant because compared to patients without delirium, 0% were restrained. This coincides with the findings from several other research studies that found that delirium is connected with a longer duration of stay in the hospital, need for greater nursing care, a lessened ability to function independently, slower rehabilitation, higher rates of institutionalization, and most troublesome, increased mortality (Foreman & Grabowski, 1992; Inouye, Rushing, Foreman, Palmer, & Pompei, 1998; O’Keefee & Lavan, 1997; Thomas, Cameron, & Fahs, 1988). All of these negative outcomes provide support as to the reasons why many of the people with delirium superimposed on dementia were readmitted to the hospital within 30 days of discharge (Fick & Foreman, 2000). To make matters worse, McCuster et al. depicted
in a controlled setting that 74% of patients with DSD died within the 12 month period of the study compared to 24% of the patients who had only dementia without delirium as a diagnosis (2002). These disturbing outcomes highlight the need for further study in this area.

Not only is the prognosis of DSD devastating for the patients and their families, but these delirium and dementia issues are very costly to the United States. Annually, according to the Alzheimer’s Association, America spends $172 billion on medical bills, nursing home costs, lost productivity, and home care for patients with dementia of the Alzheimer’s type (2010). In addition, another $4 billion is spent each year on costs related to delirium (Inouye, Schlesinger, & Lydon, 1999). Diseases of brain function and cognition are not cheap; they incur both a monetary and emotional toll on all of those individuals involved in the patient’s care.

**Nurse Recognition of DSD**

Due to the high incidence rates, significant costs, and the magnitude of negative consequences of DSD, it would be easy to assume that a significant amount of attention is being given to recognizing the signs and symptoms of the disease, and providing the necessary treatments. Sadly, based on the results from previous studies on DSD it becomes evident that this is not the reality. This suggests that nurses lack the knowledge and skills to recognize delirium in already confused patients. Two specific studies, one by Inouye (1994) and another by Gustafson et al. (1991) concluded that nurses and physicians only recognized and classified changes in mental status in delirious patients as abnormal if those patients presented with agitation and behavioral disturbances (hyperactive symptoms) from the beginning. In addition, a qualitative study by Fick & Foreman (2000) asked registered nurses how they assess patients with confusion. According to one nurse, “If they are known to have Alzheimer’s disease then usually I don’t try to ask them questions” (Fick & Foreman, 2000). This response is shocking because it shows blatantly that nurses do not know how to properly assess and respond to patients with confusion. The second problem, however, may be due to the mysterious nature of confusion. Despite the vast amount of signs and symptoms that accompany dementia, little is known about the underlying pathology. It has been hypothesized that it may be related to: (a) genetics, (b)
vascular risk factors, such as cerebral vascular accidents and myocardial infarctions, (c) nerve growth factors, (d) head trauma, (e) medications, (f) complications of surgery, (g) prenatal complications, or (f) psychosocial elements. As a result, methods of treatment focus more on alleviating the overt behaviors and emotional complications as opposed to treating the underlying cause of these events (Alanen et al, 2006). Today, drug therapy remains the treatment of choice for confusion by physicians, however, as suggested by Fick, Agostini, & Inouye, (2002, 1723):

There are a growing number of pharmacotherapeutic agents available for treating patients with dementia and behavioral disturbances, but, in many instances, disruptive dementia behaviors at home and in the hospital may be due to an underlying delirium, and medications may only serve to exacerbate or further mask the problem.

In the early stages of Alzheimer’s dementia, patients’ symptoms are minor and may be disregarded as part of the aging process (Karlawish, 2007). They may have trouble remembering things, such as where they left their car keys as well as demonstrate minor changes in personality. As the disease progresses the symptoms worsen and eventually start to interfere with their activities of daily living (Karlawish, 2007). Family members are often the first ones to notice these minute changes in behavior. Due to recommendations from family and friends, these patients do eventually seek medical assistance. Physicians may try treating with a cholinergic drug, such as Aricept, Cognex, or Namenda (Smith et al., 2008). These drugs are known to act on acetylcholine, the main neurotransmitter involved in memory processing. Patients with dementia often have a reduction in the amount of acetylcholine in the brain (Abrams, Pennington, & Lammon, 2007). Taking these drugs slows the breakdown of acetylcholine and concentrates it at the neuromuscular junction (Abrams, Pennington, & Lammon, 2007). Therefore, they are believed to delay memory loss (Abrams, Pennington, & Lammon, 2007). However, experience in the clinical setting has suggested that results from using this drug are not as successful as was hoped.

As the disease progresses the symptoms worsen and become more troublesome. Patients in the later stages of dementia will show numerous bothersome physical and psychosocial behaviors, such as: (a) wandering, (b) repetitive speech, (c) agitation, (d) incontinence, (e) confusion, and (f)
disorientation (Fick, Kolanowski & Waller, 2007). Due to the irritating nature of many of these behaviors, doctors are prescribing drugs that alter the central nervous system (Alanen et al., 2006). Drugs, such as benzodiazepenes, antidepressants, and antipsychotics are good for short term management of the behaviors (Fick, Kolanowski, & Waller, 2007). They do not, however, treat the underlying cause of the behavioral manifestations.

**Medical Management**

Central nervous system (CNS) altering medications have neurogenic properties and thus, may be used to alleviate the problematic behaviors that often accompany acute and chronic confusion. However, these drugs have a long list of negative side effects of their own, including: (a) syncope, (b) fatigue, (c) altered level of consciousness, (d) delirium, (e) constipation, (f) falls, and (g) fractures (Fick, Kolanoski, & Waller, 2007). Thus, with this method of medical management one ends up trading one set of negative side effects for another. Then, the health care professionals ultimately have to decide which scenario is worse. In a study, researchers assessed patients with dementia in a managed care organization and examined their prescribed medications based on Beers criteria (Fick, Kolanowski, & Waller, 2007). According to Fick, Kolanowski, & Waller, “The Beers criteria are medications, identified through expert panel review, deemed to have risks that outweigh benefits” (2007, p. 590). These medications were then given classification as potentially inappropriate medications (PIMs). In the end it was determined that in this sample, greater than 79% of the patients with dementia were prescribed a drug that acted on the central nervous system and according to Beers criteria, the overall rate of drugs deemed potentially inappropriate for older adults with dementia was 62.2% (Fick, Kolanoowski, & Waller, 2007). In other words, greater than half of all the medications administered had harmful side effects that were likely to offset the positive actions of the drugs. Because the subjects were selected from a managed care organization database, the population included older adults living in the community setting. Therefore, the results may not be consistent with other older adults in long term care and the acute care hospital settings. In addition, the use of claims data was a limitation of this study. Thus, cause and effect relationships could not be established from
the research (Fick, Kolanoswki, & Waller, 2007). Despite the limitations, these results are important and cannot be ignored.

A study by Alanen et al., supports this finding (2006). In a cross sectional design of clients from 16 hospitals and 25 nursing homes in Finland, the researchers investigated the use of antipsychotic drugs for episodes of confusion in elderly residents. The large number of different locations helped provide a diverse sample. The participants were evaluated using the Minimum Data Set (MDS) assessments in the Retrospective Assessment Instrument (RAI) database at three different predetermined set time points during the three year span of the study. These objective assessment tools provided a well-tested standard that could be used for comparison. In the end it was found that there was no change in the drug use over a three year period. However, the study revealed that antipsychotic medications were common treatments for elderly individuals in the long term care facilities. Some limitations to this study included: the amount of psychiatric services received by the patients was uncontrolled, the severity of the behavioral problems was not evaluated, and medication practice and administration differed greatly from one nursing home to another. However, this study was effective in raising many questions regarding the use and benefits of CNS medications in people with dementia.

Physicians have become accustomed to prescribing medications as a first line therapy to manage medical problems. However, with cognitive problems, such as confusion, drug therapy is still used almost exclusively. Prescribing these neuroleptic drugs without attempting other treatment options is of major concern due of the potentially negative effects associated with their use (Douglas, James, & Ballard, 2004). Thus, it becomes evident that nonpharmacological therapies may be another possible solution for alleviating episodes of confusion.

**Nonpharmacological Therapies**

Nonpharmacological therapy involves a vast span of different interventions, including:

(a) music therapy, (b) reality orientation, (c) validation therapy, (d) reminiscence therapy, (e) art therapy, (f) activity therapy, (g) aromatherapy, and (h) therapeutic touch, just to name a few (Douglas, James, & Ballard, 2004). Unlike drug therapy, these types of treatments do not involve using
chemicals to alter the body’s basic makeup. Instead, these treatments utilize more personal interactions between patient and caregiver, including retraining of the mind and reorientation with the environment (Douglas, James, & Ballard, 2004). Due to a lack in experimental research in this area, this type of medical management is slowly gaining acceptance (Douglas, James, & Ballard, 2004). There is little empirical evidence as to why this type of treatment is successful, however more and more patients with manifestations of confusion are beginning to show substantial improvements, such as (a) increased level of well being, (b) higher self esteem, (c) greater social interaction, (d) improved memory, and (e) self care (Gibson, 1994). In a study by Lord & Garner, nursing home residents who listened to music on a regular basis presented with more social skills, advances in autobiographical memory, and a more positive affect (1994). In addition, these patients also showed less agitation and behavioral disturbances compared to those who were not exposed to any musical stimulation (Cohen-Mansfield & Werner, 1997). These patients passively listened to their favorite songs, but music therapy can include any type of musical engagement, such as singing and instrument playing as well. Possible explanations for this phenomena was depicted in an article by Fukui and Toyoshima (2008). These researchers suggest that music causes brain plasticity, reconfiguring the existing neural networks, and thus, is capable of improving memory. “For example, even when a neurodegenerative disease such as Alzheimer’s disease causes memory loss, patients can still remember music from the past, and listening to music can facilitate the recovery of other memories” (Fukui & Toyoshima, 2008, 766). Despite these findings, other studies have shown inconsistencies regarding the effect of music therapy (Witzke, Rhone, Backhaus, and Shaver, 2008). Music appears to have a calming effect on agitated patients, but does it really affect the brain chemistry? Is there a correct dosage of music that is more effective and what are the direct and indirect effects on the patient? These are all questions that need further evaluation.

Compared to drug therapy, nonpharmacological treatment methods are safe as they are noninvasive and relatively low risk. Most are easy to integrate into the healthcare setting and are inexpensive. So, why are they seldom used for managing patients with confusion? First, there is a vast
array of different types of nonpharmacological therapies, and each one functions differently. It requires a great deal of teaching and education for nurses and health care professionals to become skilled and accustomed in all of these areas. Second, these treatment methods are very patient specific and require more of the caregiver’s time. Depending on the patient’s individual needs, behaviors, and personal preferences, these methods of therapy must be modified accordingly. This requires that the nurse has an in depth understanding of the needs of her patients. Unfortunately, it appears that nurses simply to not have enough time to develop these intimate relationships. Last, despite the increasing popularity of nonpharmacological methods of treatment in recent years, it seems that little attention has been made applying these techniques to confusion related to dementia or delirium. There is strong supporting evidence from a study of healthy older adults by Valenzuela and Sachdev that cognitive stimulation was related to strong and persistent protective effects on long-term neuropsychological performance (2009). It also demonstrated that similar improvements in cognition and activities of daily living were noted in the dementia population (Valenzuela and Sachdev, 2009). Overall, however, a minimal number of research studies have been conducted evaluating these forms of management on dementia and related delirium, and thus, their effectiveness remains uncertain.

**Nursing Use of Nonpharmacological Therapies**

Despite inconsistencies in the literature, nurses are, however, starting to use nonpharmacological therapies in the clinical setting to treat a variety of chronic diagnoses. In a study in the United Kingdom, nurses’ views on nonpharmacological therapies were addressed in the form of a survey (Fitch et al., 1999). These researchers found that of the 393 nurses who responded, half indicated that they had used nonpharmacological therapies in practice mainly for the purposes of decreasing stress, alleviating pain, and increasing relaxation (Lerner & Kennedy, 1992). In addition, 30% revealed that they frequently recommended these therapies, such as massage and aromatherapy to their patients (Fitch et al., 1999).

Nurses are the vital link connecting the patient, family members, and other health care professionals, as they spend the most time with the patient at the bedside. As stated by Fitch et. al,
“lack of information about therapies, the need to support the patient, and the ethical imperative ‘to do no harm’ could evoke feelings of conflict for nurses” (1999). Thus, when trying to assess alternative forms of treatment, it becomes evident that there is a need to study the current knowledge, attitudes, and perceptions of the nurses caring for the patients. By utilizing a series of telephone interviews with 40 nurses who worked in regional cancer centers or oncology programs, Fitch et. al, tried to examine nurses’ perspectives on nonpharmacological therapy (1999). Throughout the duration of the study, five main themes continues to reappear including: 1) there is a need to have information readily available to nurses in the clinical setting, 2) there is great variation in the type of patient that benefits from nonpharmacological therapy, 3) people use therapies for a variety of reasons, 4) there is a need for open communication between patient and health care provider concerning the use of these therapies, and 5) patients would benefit from the collaboration of practitioners so that both traditional and nontraditional therapies can be used together to treat the patient’s disease process (Fitch et. al, 1999).

In comparison, in a newer study, Brolinson, Price & Ditmyer revealed a more negative outlook from nurses regarding nonpharmacological treatments (2001). Using a four page questionnaire, these researchers found that nurses had vastly different perceptions of forms of nonpharmacological therapy in terms of effectiveness, safety, personal use, and recommended use (Brolinson, Price, & Ditmmyer, 2001). In regards to their professional level of preparedness, 79% of the nurses’ sampled rated themselves at fair or poor and only 25% revealed acquiring their knowledge from an actual nursing course (Brolinson, Price, & Ditmmyer, 2001). There was great variation in the effectiveness rating between the various therapies and the nurses’ perceptions of safety. Overall, the majority of nurses indicated that they do not use these treatment strategies in their practice (Brolinson, Price, & Ditmmyer, 2001).

Addressing nurses’ perspectives toward nonpharmacological treatments can be a difficult task because there is no standard. Various terms such as, nonpharmacological, unconventional, holistic, and alternative therapies are used each having different meanings to different people (Pepa & Russel, 2000). Due to these limitations, few research experiments have been conducted. Confusion in the
hospitalized older adults is a highly prevalent issue that deserves more attention. Current medical treatment methods are rather ineffective and can cause a vast list of devastating complications. Although having been in existence for many years and high success rates in other areas of medicine, nonpharmacological therapies are just starting to gain popularity. Current research is showing that certain types of cognitive therapy are having positive effects on dementia patients; however these therapies are not being used as a first line treatment. Nursing perceptions have been addressed in a few clinical studies, but currently no research has been done on evaluating nurses’ knowledge and attitudes regarding nonpharmacological treatment for confusion related to dementia in hospitalized older adults. The aim of this study is to examine the knowledge base and understand the current use of nonpharmacological treatment for managing confusion by nurses in the acute care setting.
Chapter 3

Methods

Design

The study was a descriptive, exploratory study for the purpose of gaining an understanding of the personal attitudes and perceptions of nurses regarding nonpharmacological therapies for managing confusion. This analysis is part of a larger focus group study. The parent study (Fick, PI), is aimed to describe nurses’ assessments and management strategies when presented with patients experiencing an acute onset of confusion. It is evidenced from prior research studies that focus groups are an effective means of stimulating dialogue and discussion about a particular phenomenon, such as gathering nurses’ opinions about specific areas of care (Knodel, 1995). Therefore, focus group methodology with semi-structured questions was the model utilized in this study. Factors such as: (a) location and setting, (b) length of session, (c) group size, (d) group composition, (e) number of groups, (f) use of a moderator, and (h) incentives were all carefully designed and pre-planned based on the recommendations of more experienced researchers in the article, “Focus Groups and Older Adults: Tactics for Success” (Loeb, Penrod, & Hupcay, 2006). Focus group strategies have been successful in previous projects with the elderly population. Likewise, the long term goal of this study is to generate a basic understanding of nonpharmacological practices for acute confusion and their associated biases, and thus, provide relevant information to future nursing practice (Loeb, Penrod, & Hupcay, 2006).

Prior to performing this research, approval was obtained from the institutional review board (IRB) at Pennsylvania State University. The researchers were granted permission to speak and interview acute care nurses in one hospital setting. A 200 bed community hospital located in central Pennsylvania was the setting used for this study. The informed consent document can be viewed in Appendix A.

Sample

Purposeful sampling was utilized as nurses in the acute care setting who have had one or more previous experiences working with patients with confusion related to dementia were recruited to
take part in the study. In other words, “purposeful sampling refers to selecting participants who serve as a specific purpose consistent with the study’s main objective” (Collingridge & Gantt, 2008). Here, the researchers specifically aimed to recruit nurses who have experienced the phenomenon of caring for patients with dementia, delirium and DSD. Announcements, flyers, and a twenty dollar cash incentive were the primary means of encouraging participation. Inclusion criteria consisted of registered nurses (RNs) and license practical nurses (LPNs), at least 18 years of age, and those who signed an informed consent. Nurse practitioners, supervisors, nurse managers, and clinical coordinators were excluded from the study. Participant homogeneity is important because commonality provides comfort and maximizes the interaction and progression of the group (Loeb, Penrod, & Hupcey, 2006). Six to ten individuals have been the previous norm for focus group size (Morgan, 1998). However, in a study by Morgan (1998) it was suggested that smaller groups, between six and eight members, is more ideal for most studies because people seem to lose interest faster when they have to wait a longer time to speak, as is apparent with larger group sizes (Loeb, Penrod, & Hupcey, 2006). Although the goal was six to eight participants per focus group, difficulties with recruitment made this challenging. The first focus group session only had one participant so those results were not compiled into the data. Twelve subjects attended the second focus group session and four participants made up the third focus group.

**Procedures of Data Collection**

After informed consent was obtained, the focus groups were conducted. First, demographic information was obtained by having the participants fill out a questionnaire (See Appendix B). This data included: (a) gender, (b) age, (c) race, (d) nurse title, (e) number of years of work experience, (f) average amount of hours worked per week, and (g) the incident rate that these nurses stated that they encounter acute and chronic confusion in their work setting. A total of three research sessions took place on two different days. Times were scattered, one at 1:45 PM and one at 3:45 PM on the first day, and one other at 7:00 AM on the second day. This was important so that the focus groups accurately
accounted for nurses working on all three shifts: (a) dayshift, (b) evening shift, and (c) nightshift. Thus, the perspective and context of all three shifts was explored in this study.

For the convenience of the nurses, the focus groups took place in a conference room at the hospital with food and beverages provided to promote comfort. In addition, all doors were closed to minimize distractions, and participants were reminded that all information exchanged must remain confidential. In the room there were three researchers present: one moderator who led the discussion, and two others who took field notes, documented participant seating positions, and provided additional support. All researchers had a copy of the pre-planned script and an interview guide with open ended questions, as well as probes which were utilized, when necessary, to redirect the group or facilitate more discussion. The interview questions were developed based on the principles stated by Morgan (1998). In this design, one starts with broad introductory questions to assess knowledge and establish understanding and then steadily advances to more specific, focused questions. The detailed interview script can be viewed in Appendix C. The specific questions that relate to this area are as follows:

1) How did you manage their nursing care related to the patient’s confusion?
   - Think about the terms “alternative therapy” or “nonpharmacological (non-drug) interventions or treatment.” What if anything do these terms mean to you?
   - Can you think about and describe a specific time when you used a nonpharmacological or an alternative method of treatment when working with a confused patient?

2) Do you think the nonpharmacological strategy was effective? If not, what factors do you feel contributed to its failure?

3) What do you think would help you when dealing with this situation in the future?

The open ended style of questions directed the conversation, however, this technique also gave the subjects flexibility in their responses. The researchers were encouraged to probe, but not prod so deeply that they influenced the subjects’ responses. Subjects were encouraged to answer openly and honestly in a personal, narrative fashion. This is the best method to encourage dialogue of a person’s
own experiences, individual knowledge level, and specific attitudes and feelings. Each session lasted no longer than one hour in length and was audio recorded. In a Hupcey et al. (2004) study, on average her focus group sessions lasted about one hour. It was noted that, “When the session passed that point, some of the participants seemed to get fidgety and some indicated it was time for refreshments” (Hupcey et al., 2004). Therefore, it was important to ask directed questions aimed at answering the questions of focus, to keep the discussion moving forward, and to reduce distractions and off topic conversations.

Data Management and Analysis

After the focus groups were completed, the participant data was transcribed from audio recording to print by a hired professional. The transcriber was told that all information and discussions included on the tapes were to remain confidential. In order to maintain the privacy of the participants, the transcriber was asked to remove all names and identifiers even if they were used during the context of conversation in the focus group. In the script, these names were replaced with a new, non-identifying title. After transcription took place, each researcher individually reread the narratives to make sure that they matched the actual content discussed in each of the focus groups sessions. In addition, the researchers paid close attention to identifying any major issues in the data set. If the transcriber had difficulty hearing or understanding a portion of the dialogue on the audio recordings, the researchers personally addressed these areas and referred to their field notes to fill in the missing information.

An hour long focus group session can turn into a rather lengthy written document, and line by line coding can become a very daunting task. Thus, as suggested by Krueger & Casey (2000) a ‘long table’ approach was utilized to stay organized. Once converted to print, two copies of each transcript were made and each line of the narrative was given a number. Thus, the researcher could easily cut, copy, paste, sort, and rearrange the data to make it easier to analyze, but could always have the original narrative to refer back to, if needed. In addition, transcripts were printed on different color pages, one for each focus group session. Last, the researchers performed line by line coding by reading
and analyzing each individual quote. As suggested by Kruger & Casey (2000), each quote was managed based on four questions:

1. Did the participant answer the question that was asked?
2. Does the comment answer a different question in the focus group?
3. Does the comment say something of importance about the topic?
4. Is it something that has already been said?

By addressing the answers to these questions, similar quotes could be easily sorted and grouped together.

Using line by line coding, each individual researcher sorted and rearranged the data for interpretation. At this stage, the researchers used tools of content and thematic analysis. “One of the tasks here is not only to make sense of the individual quotes, but also to be imaginative and analytical enough to see the relationships between the quotes, and the links between the data as a whole” (Rabiee, 2004, p. 658). In order to develop a framework for interpreting the data, Kruegar identifies seven criteria for focus group assessment: (a) words, (b) context, (c) internal consistency, (d) frequency and extensiveness of comments, (e) specificity of comments, (f) intensity of comments, and (g) big ideas (1994). These guidelines helped the researcher determine how the participants defined the terms used, how they responded to the wording of the questions, the frequency that their comments are repeated, and whether their opinions were consistent or change through the duration of the study (Rabiee, 2004). Once this criteria was established the researcher was better able to look at the big picture and reduce all of the information into a few major ideas. Then, together as a team, the researchers collaborated, reassessed each session, discussed commonalities, and unified these theoretical ideas into major themes. As a result, valuable information surfaced on the conceptual insight of the nurses’ perceptions and use of nonpharmacological therapies for confusion related to dementia and delirium.
Chapter 4

Results

Through several sessions, the team continued to reread the transcripts, re-categorize the codes, and modify the groupings until the analysis most accurately depicted the focus group data. In addition, the demographic information for all seventeen participants was compiled and organized into a spreadsheet. It was determined that the mean age in years of the nurses included in this study was 43.59 (±13.79) with an average of 7.03 (±8.54) years working in the acute care hospital setting. In a total sample of 17 participants, about 75% of the participants were female and most were of the white/Caucasian race. Working an average of 36 hours per week, most of the subjects stated that they encounter chronic confusion “several times per week” and delirium as often as “once per week.” A full chart of the demographic information can be found in Table 1. Upon analysis of the focus group sessions, three major themes were identified: confusion is normal, our duty is to protect, and finding your balance. It became clear from the focus group discussions that the nurses’ perceptions, knowledge, and use of nonpharmacological treatments for delirium and dementia in the acute care setting weighed heavily on these ideals.

Confusion is Normal. The attitude that “confusion is normal” was a reoccurring idea that emerged from this data. Many of the nurses worked on an orthopedic surgical floor, and stated that patients often get confused after having surgeries such as hip and knee replacements. For example, when asked how often they see confusion, one nurse stated, “I work with adults, older adults on the surgical floor and it’s usually with confusion postoperatively (…).” Another nurse agreed, “(I) mostly just see it post-op for the older people that have fractured hips.” One participant declared, “I’m an RN in (the) med/surg area and that’s where I see a lot of confusion too is post op related to anesthesia. It might be an age thing.” During the session, these participants did not explain this change in mental status as a cause for concern, but rather a normal side effect from anesthesia. Thus, when the nurses were asked about precautionary measures taken to prevent this complication from occurring, they
Table 1 Demographic Information For Nursing Staff Participating in Focus Group Study

<table>
<thead>
<tr>
<th>Participant</th>
<th>Age</th>
<th>Gender</th>
<th>Race</th>
<th>Type of Nurse</th>
<th>Number of Years Working in this Setting</th>
<th>Number of Years as a Nurse</th>
<th>Average Hours per Week Working in the Setting</th>
<th>How Often you Encounter Chronic Confusion or Dementia</th>
<th>How Often You Encounter Delirium or Acute Confusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>24</td>
<td>Female</td>
<td>Caucasian</td>
<td>RN</td>
<td>3</td>
<td>3</td>
<td>40</td>
<td>Once Per Week</td>
<td>Several Times Per Week</td>
</tr>
<tr>
<td>2</td>
<td>30</td>
<td>Female</td>
<td>Caucasian</td>
<td>RN</td>
<td>8</td>
<td>8</td>
<td>40</td>
<td>Once Per Week</td>
<td>Several Times Per Week</td>
</tr>
<tr>
<td>3</td>
<td>62</td>
<td>Female</td>
<td>Caucasian</td>
<td>RN</td>
<td>1.5</td>
<td>30</td>
<td>40</td>
<td>Once Per Week</td>
<td>Once per month</td>
</tr>
<tr>
<td>4</td>
<td>63</td>
<td>Female</td>
<td>Caucasian</td>
<td>RN</td>
<td>7</td>
<td>7</td>
<td>40</td>
<td>Several times per week</td>
<td>Varies</td>
</tr>
<tr>
<td>5</td>
<td>45</td>
<td>Male</td>
<td>African American</td>
<td>LPN</td>
<td>6</td>
<td>6</td>
<td>50</td>
<td>Several times per week</td>
<td>Rarely</td>
</tr>
<tr>
<td>6</td>
<td>42</td>
<td>Female</td>
<td>Caucasian</td>
<td>RN</td>
<td>1</td>
<td>8</td>
<td>40</td>
<td>Several times per week</td>
<td>Several Times Per Week</td>
</tr>
<tr>
<td>7</td>
<td>40</td>
<td>Female</td>
<td>Caucasian</td>
<td>RN</td>
<td>5</td>
<td>5</td>
<td>40</td>
<td>Once Per Week</td>
<td>Once per week</td>
</tr>
<tr>
<td>8</td>
<td>51</td>
<td>Female</td>
<td>Caucasian</td>
<td>RN</td>
<td>1</td>
<td>29</td>
<td>20</td>
<td>Several times per week</td>
<td>Several Times Per Week</td>
</tr>
<tr>
<td>9</td>
<td>44</td>
<td>Female</td>
<td>Caucasian</td>
<td>RN</td>
<td>3</td>
<td>22</td>
<td>16</td>
<td>Every day</td>
<td>Once per Month</td>
</tr>
<tr>
<td>10</td>
<td>23</td>
<td>Male</td>
<td>Caucasian</td>
<td>RN</td>
<td>2</td>
<td>2</td>
<td>40</td>
<td>Several times per week</td>
<td>Rarely</td>
</tr>
<tr>
<td>11</td>
<td>53</td>
<td>Female</td>
<td>Caucasian</td>
<td>RN</td>
<td>12</td>
<td></td>
<td>40</td>
<td>Several times per week</td>
<td>Several Times Per Week</td>
</tr>
<tr>
<td>12</td>
<td>52</td>
<td>Female</td>
<td>Caucasian</td>
<td>LPN</td>
<td>9</td>
<td>20</td>
<td>32</td>
<td>Several times per week</td>
<td>Several Times Per Week</td>
</tr>
<tr>
<td>13</td>
<td>32</td>
<td>Male</td>
<td>Caucasian</td>
<td>RN</td>
<td>1</td>
<td>1</td>
<td>40</td>
<td>Several times per week</td>
<td>Several Times Per Week</td>
</tr>
<tr>
<td>14</td>
<td>51</td>
<td>Female</td>
<td>Caucasian</td>
<td>RN</td>
<td>27</td>
<td>29</td>
<td>40</td>
<td>Several times per week</td>
<td>Once per week</td>
</tr>
<tr>
<td>15</td>
<td>67</td>
<td>Female</td>
<td>Caucasian</td>
<td>RN</td>
<td>29</td>
<td>37</td>
<td>24</td>
<td>Every day</td>
<td>Once per week</td>
</tr>
<tr>
<td>16</td>
<td>36</td>
<td>Female</td>
<td>Caucasian</td>
<td>RN</td>
<td>3</td>
<td>5</td>
<td>40</td>
<td>Every day</td>
<td>Once per week</td>
</tr>
<tr>
<td>17</td>
<td>26</td>
<td>Male</td>
<td>Caucasian</td>
<td>RN</td>
<td>1</td>
<td>2</td>
<td>40</td>
<td>Several times per week</td>
<td>Several Times Per Week</td>
</tr>
<tr>
<td>Mean</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>7.03</td>
<td>13.38</td>
<td>36.59</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>8.54</td>
<td>12.26</td>
<td>8.65</td>
</tr>
</tbody>
</table>
stated that a change in mental status was a common finding and often did not take an immediate.

Many nurses explained various instances when they cared for patients with confusion. However, when asked if a specific patient’s confusion was acute or new, one nurse’s response was, “No, I had no idea at the time…See a lot of the time this is their first time in this type of environment so you don’t really know until they get here and see what happens and how they react.” When questioned about the protocols or assessment tools that they use to evaluate confusion, the consensus from the participants in this study was that they do mental status exams. Therefore, they would assess a person’s common knowledge of basic questions, including: where they are, what their name is, and who their doctor is. Although, this helped the nurse determine the person’s level of cognition at that instance, the participants stated that they did not have any specific protocols to determine changes. One nurse stated that she determined that her patient’s confusion was acute because, “The next day when I came in and had him again the next day, he was fine.” Later in the session, another nurse explained why there are an increased number of episodes of confusion in the hospital for these patients:

“I think it’s increased just because of the change in their setting, that they’re not at home around their usual surroundings and I’m sure the anesthetic that they’re given during surgery kinda aids in their confusion. I also see more confusion as the night falls on a lot of patients that maybe not be diagnosed already previously with dementia. And it’s hard for their families because they really don’t like to see that. And hard to educate the families that this is normal.”

Our duty is to protect. During the focus group sessions, these nurses discussed a vast array of situations were they cared for individuals with many different nursing diagnoses in addition to acute and chronic confusion. Despite the severity of the patient’s illness, time and again, these nurses discussed patient safety as the number one priority. For example, one participant stated, “…As soon as we see that there is some dementia going on or acute confusion then we assess them for falls because our main goal is to protect them.” Another nurse described a nightshift where her unit was understaffed. Her patient load included two patients who were so confused that she felt that they needed to be watched more thoroughly. As a result, she moved their beds to the same room. She said, “… just because you know staff wise and not necessarily that’s the best thing, but that’s the safest
thing. You know we have to think of making them safe.”

Patients with dementia and delirium are cognitively impaired which results in behaviors the nurse perceives as unsafe to the patient and themselves. Pulling out intravenous lines, climbing out of bed to get to the bathroom, and combative behavior are all common complaints by the nurses in this study when caring for patients with delirium and dementia. The participants explained that physical restraints and antipsychotic medications are ill-advised in their hospital’s policies. Thus, at this hospital the nurses described one-on-one sitters (people paid to stay in the room with the patient for the duration of the shift) as a common alternative measure that they often utilize:

…we have a lot of precautions to aid that without restraining patients. We do one on ones, we have staff out if we do have a patient that’s unsafe so we can have them sit with them to keep them safe and we also have the technology of bed alarms when they do work, to aid in going off if the patient does try to get out of bed.

The nurses voiced frustration that the hospital does not hire additional staff to sit with these confused patients. Instead, they use their certified nursing assistants to perform this role. During the focus group session, the nurses discussed that the use of one-on-one sitters takes away their support staff and leaves them with little help to complete their other nursing responsibilities.

Other nonpharmacological measures mentioned by the nurses that they utilize when caring for confused patients are diversion activities. Forms of distraction such as folding towels, watching the relaxation channel, coloring, and ambulating in the hallways were common interventions suggested by the participants that they employ to control a confused patient on a daily basis. A complete list of the management strategies suggested by the participants in this study can be seen in Table 2. When asked about educational training, the nurses in the study admitted that they receive very little instruction in this area. For example, one nurse stated, “…we don’t have enough tools to treat a demented acute, sick person. I think it is so frustrating.” One nurse suggested that she relies on personal experience and advice from her peers. She stated, “…for people that are pickers – they call them pickers twisting their IV tubing, I often give them a stack of wash cloths and have them fold them.” Another participant confirmed, “I’ve seen lots of nurses give patients towels to fold and it’s a focus and it keeps them
focused and then they don’t get hurt.” It was suggested that creativity and trial and error on an individual basis were often the best source of management strategies:

… When we had my one gentleman who was unsafe (…) we ended up finding out walking him, it took two people to walk him, but walking him really calmed him down and it would tire him out and we would go back in (to his room and stay there in bed).

Table 2: Nonpharmacological Treatments Used By Nurses in the Study

<table>
<thead>
<tr>
<th>One-to-one sitters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reorientation</td>
</tr>
<tr>
<td>Bed exit alarms</td>
</tr>
<tr>
<td>Communication with the family</td>
</tr>
<tr>
<td>Equate patient activities to normal routines at home</td>
</tr>
<tr>
<td>Decrease stimulation in the rooms</td>
</tr>
<tr>
<td>Situate them in a chair and sit them next to the nurse's station</td>
</tr>
<tr>
<td>Medications-- Ativan and Haldol</td>
</tr>
<tr>
<td>Encourage family to come in and stay with the patient</td>
</tr>
<tr>
<td>Turn on the relaxation channel on the TV- vivid imagery and smoothing music</td>
</tr>
<tr>
<td>Diversion activities- stack washcloths and fold towels</td>
</tr>
<tr>
<td>Offer magazines or book to pursue</td>
</tr>
<tr>
<td>Place socks covering both hands</td>
</tr>
<tr>
<td>Ambulation in the hallways</td>
</tr>
<tr>
<td>Position patient next to the window so he/she can look outside</td>
</tr>
<tr>
<td>Provide them with food to eat</td>
</tr>
<tr>
<td>Read the newspaper to them</td>
</tr>
<tr>
<td>Communication with the patient- encourage conversation</td>
</tr>
<tr>
<td>Provide them with back rubs</td>
</tr>
<tr>
<td>Restraints</td>
</tr>
<tr>
<td>Have patient talk to their family on the phone</td>
</tr>
<tr>
<td>Wrap the patient in warm blankets</td>
</tr>
<tr>
<td>Coloring books</td>
</tr>
<tr>
<td>Talk to them and hold their hand</td>
</tr>
<tr>
<td>Provide physical contact/touch</td>
</tr>
<tr>
<td>Put them in a wheelchair and walk the patient around the hall</td>
</tr>
</tbody>
</table>
Another valuable resource discussed during the sessions was communication with the patient’s family. The nurses stated that these individuals know the patient’s daily routines, likes and dislikes, and are more in tune with his/her normal levels of cognition. For many elderly individuals, they explained, simply being in a new environment, such as a hospital room, and away from their normal routine can trigger episodes of confusion. In these instances, having the family come in and stay with the patient or having the patient talk to their loved ones on the phone can ease their agitation:

… I know one thing that I always try to do if I can’t reorient them, and it’s easier for me working dayshift, I’ll make a phone call to a family member, and either have the family member call and try to reorient mom or dad and if they seem like they’re not getting better, the family members usually do come in. Because they don’t want their family member…because they love them, they don’t want them sit in this place and not know where they are. So that’s a great alternative to confusion in the hospital. Having the family members come in and sit with them or talk to them on the phone.

When patients are in danger and all other methods have failed, the participates explained that the doctors will sometimes prescribe both physical and chemical restraints to temporarily ease agitation and confusion.

During the session, the participants were asked about the medication regime for patients in these instances:

…Yeah we do not like that. I mean we will use Ativan for an agitated patient […] Our doctors are very good, they hardly ever order something unless someone’s really really combative and they’re doing it for the patient’s safety.

Not only did the theme of patient safety commonly appear through the session, but protection of nurses was also a reoccurring concern. This was depicted in a quote by one of the participants:

…I think it’s important to say too we’re trying to protect the staff as well so if we don’t have a good hand on a patient and can’t control their behavior in other ways we want to make sure they’re safe. You know, we don’t want them to hit us and then us get hurt and the same time them hurting themselves while they hit us or kick. I’ve had a patient before that had kicked me and kicked my watch and they put a big huge tear in their leg because they kicked me but also created damage to their own skin while they were trying to be aggressive.

Finding your balance. According the RNs and LPNs in this study, on a typical eight to twelve hour shift, a nursing load may be anywhere from two to seven patients each with a vast array of complicated diagnoses. They agree that no two patients are the same and thus, each day they are faced
with different exciting and challenging situations. The common feeling among the nurses in the study is that it is their responsibility to use educational judgment to provide quality care for their patients, ALL their patients. For example, one nurse explained that it is important to be able to balance your time, energy, and patient needs for each day:

… I think when we take care of one confused patient we also have our other patients so in the back of our mind, we have to do X Y Z. We have to give meds, we have to get our patients to therapy, we have to get them to their tests, we have to call doctor about labs, you know so…

Patients with dementia and delirium often prove to be a challenge for nurses in the acute care setting as one nurse stated, “I get, one demented patient and my day is shot, like I’m drained and I go home and I just sleep.” Characteristically, patients with confusion have physical and cognitive impairments that greatly interfere with their ability to perform activities of daily living. As a result, these patients require more care and more of the nurse’s individual time. Many nurses voiced the concern that if they are doing everything that is necessary to keep a patient with dementia in bed and occupied, they are often left with little time to devote to their other patients:

…Time is a huge factor. We don’t have as much time to spend with someone…I think we resort to sitters as often as we do because the RN’s just cannot spend that much time with one patient. We just can’t.

Although patient safety is a huge concern, being able to balance their responsibilities as a nurse and provide the necessary care for their patient load is another main incentive for acute care nurses to control confusion in the hospital. The nurses in this session acknowledged that they often feel torn between their goal of providing a safe environment for their patient with dementia, and their role to provide medical care to their other patients. According to the nurses in this study, this can be a very daunting situation and feel that the family should assist in keeping the patient calm and under control:

…I personally would be more appreciative if families would be willing to spend time with their family member that’s here and that is confused…it helps to have familiar belongings, familiar people, a favorite blanket there. So I’ve asked family you know if at all possible, if a grandchild or an adult grandchild, a child, a niece, nephew, somebody, anybody that they know can come and spend the night or half the night that would be so helpful. But getting families involved, I don’t know if families realize necessarily how much of a difference it really can be when their loved one is admitted to the hospital.
They declared that families are often great resources for the nurses as many relatives are willing to come in and stay with their loved one while he/she is in the hospital. However, due to the constant attention, repetitive speech, and redirection, the nurses understand that these patients require around the clock care which can be exhausting for a caregiver. One participant expressed, “…They’re worn out. I mean they’re worn out as much as the patient.” Another stated, “I know from experience that many families who take care of confused or chronically confused people view an admission to the hospital as a respite. It’s now the hospital’s problem; it’s no longer my problem.”

Managing a patient with confusion in the hospital is a team effort. The nurses discussed that everyone works together. If they see that one person has a complicated patient or a challenging group, other nurses will often step in and assist them. Sometimes nurses bring patients out of their rooms and have them sit by the nurse’s station. This way all the nurses can work together to keep a watch on them and occupy them with different diversions before they get agitated and out of control.

Collaborative efforts and effective communication are important ways that the nurses at this hospital are able to balance their responsibilities. Despite their support for one another, issues with understaffing and nurses “being stretched thin” were reoccurring complaints. Nurses in this study voiced frustrations with a lack of support from the doctors in treating changes in confusion that they observed in their client:

…I think our physicians support us but its more like “What do you want?” Especially when you call at 2am. This person is ripping out their IV, they’ve fallen they have a contusion and we take them down the ER and get staples in their head. “Well what do you want?” Like they just want you to tell them what you’re calling them for and what exactly you want out of the conversation or out of the phone call waking them up. It’s more at that time they want us to fix them and they want us to tell them what they need to order for this patient, which is kind of frustrating because that’s not our role.

Often patients come into the hospital with a fractured hip from a fall as was described in a story by one participant. She says that time and again, the physician assesses the immediate problem, repairs the fracture, but fails to address any underlying conditions.

…I think we have certain patients that come back continuously because of that, like with different fractures. And its stinky because the physicians need to take some responsibility and start diagnosing these and treating the confusion and the unsafeness at home versus ok we’re
going to repair this hip and get them to rehab and get them back home…I think we as nurses need the physicians to focus too on the mental state versus just their physical state. And I ask the doctors all the time, come in here, look at your patient, look what we’re dealing with.

The researchers asked the nurses in the focus group to explain what the hospital protocol is if they are taking care of a person and thought he was experiencing a delirious episode or an acute reversible confusion verses a dementia. The unanimous response was that there was no protocol. “No protocol. One on ones. That’s their answer.”
Chapter 5

Discussion

Confusion can be very challenging for nurses in the acute care setting (Anderson, Wendler, & Congdon, 1998). In addition, because of their already altered brain function, patients with dementia are very much at risk for developing delirium upon admission to the hospital (Inouye & Charpentier, 1996). Every person is unique and responds differently when hospitalized. Thus, nurses are continuously challenged to think critically and plan new interventions to help manage their patients and their changing environment. What emerges from our findings is a better understanding of how nurses are required to balance two very important roles, protector and caregiver. Although these two responsibilities often occur simultaneously in the clinical setting, the priorities of one patient will often compete with nursing duties to other clients. Because lack of time is a major concern in this setting, symptom management becomes an essential tool.

Because of the complexity of confusion related to dementia and delirium, it is not surprising that participants in this study identified numerous barriers to implementing nonpharmacological treatments for patients in the acute care setting. A demanding patient load, understaffing, time constraints, and little educational training are all factors that prevented the nurses in this study from effectively implementing nonpharmacological therapies. Forms of accompaniment, such as having assistive personal or family members spend time with the patients in their individual rooms during the day, as well as distractive techniques including: reading the newspaper to them, having patients fold towels or squeeze washcloths, walking with them in the hallways, and giving them magazines to peruse were the most common strategies employed by nurses in this study to manage confusion. Although effective at times, many of these strategies require the nurse to spend a great deal of individual one-on-one time with the patient. According to the nurses, in order to keep these patients distracted and safe in bed, reorientation must be constant and repetitive. The nurse worried that if she stepped out of the room to assist another patient, her confused patient might become agitated again
and unintentionally hurt himself. Due to time constraints and increased patients loads resulting from short staffing, this is an internal battle that acute care nurses often find themselves fighting.

Although this was a rather small study of sixteen participants, it became clear that these nurses have had little, if any training on the use of nonpharmacological treatment for confusion related to dementia and delirium. The nurses did not seem to understand the difference between dementia and delirium at times, and thus did not have a clear understanding of treatment to employ. A significant knowledge gap was identified in the nurses in this setting. Personal nursing experiences with trial and error and advice from peers during report emerged as the sole sources for management tools to control a patient’s altered cognitive state. Music stimulation, pet therapy, and tissue massage were all mentioned as possible interventions, but the participants responded that they were not familiar with them, nor did they have enough time with the patient to utilize such techniques. The participants suggested that it would be beneficial to have a yearly class in which an educator could come in and discuss nonpharmacological methods for dealing with confusion in the practical setting. Transferring the evidence-based research into the clinical setting can only be possible if the nurses are educated in this area.

When the participants in this study were asked how they assess for a new onset or change in confusion, such as an acute episode of delirium, they stated that they perform a mental status exam. They assess a person’s orientation to person, place, and time, by asking them every day questions, such as “What is your name?” or “Who is the current President of the United States?” The nurses in this study had no specific assessment tool for determining a person’s baseline cognitive state when entering the hospital or a systemic approach for assessing acute changes in their mental state. This is quite frightening because delirium must be recognized and treated immediately in order to prevent devastating complications and permanent brain damage (Fick, et al. 2002).

Nurses in this study were quick to identify a patient who was screaming, yelling, or constantly trying to get out of bed as requiring management. This is because these behavior manifestations put the client at an immediate risk, as well as disrupted their typical nursing routine. However, when
patients presented with more passive behavior, it appeared that nurses did not see any need for intervention. Although the patient was still displaying symptoms of delirium, the person’s behavior was not disrupting the work environment and thus, was not alarming to the nurse.

The study has several limitations. First, this is a small pilot study with a small sample size. The researchers are only addressing the attitudes and knowledge of seventeen participants in only one clinical setting. Thus, the results may only reflect the teachings and experiences provided to those nurses working at this one community hospital and not the entire acute care nursing population. In addition, all of our data is coming from the personal responses of the group to our focused interview questions. Thus, the data is only as truthful as the honesty of the answers provided by the participants. The subjects may have felt intimidated by their peers or pressured to give the answers that they thought the researchers were hoping to hear. In addition, at the conclusion of the data analysis the researchers did not go back and confirm the results with the participants. Collaborating with the subjects after the coding was completed, would have been beneficial in increasing the validity of the study. Overall, however, this study is well designed to address the research questions.

Nurses report they do not have the knowledge and time to deliver optimal care to patients who are confused. Although potentially effective, nonpharmacological therapies are not being efficiently utilized for this population. Maybe, nurses are too busy to provide the amount of personal attention that is required with these alternative therapies. Nurses are not trained adequately on how to care for the confused patient. However, none of these theories can be addressed without uncovering the current knowledge and attitudes about nonpharmacological therapies of the nurses working at the bedside with these types of patients.

Agitation, wandering, garbled speech and behavioral disruptions, or hyperactive symptoms are common manifestations of people with an acute onset of delirium in the hospital. However, patients can also present with more hypoactive symptoms and lack many of the traditional behavioral complications (Fick et al, 2002). Not once during any of the focus group sessions did a nurse explain a patient with hypoactive symptoms of confusion as having dementia or delirium. Both hyperactive and
hypoactive presentations, however, are equally devastating to the patient. “If delirious patients do not have agitation or behavioral disturbances, nurses and physicians do not view the mental status change as problematic and, as a result, fail to recognize delirium.” (Inouye, 1994 and Gustafson, Brannstrom, Norberg et al., 1991).

The prevailing attitudes that calm confusion is good confusion or that confusion in hospitalized geriatric patients is normal greatly affects the quality of care these patients receive. Confusion is often a secondary diagnosis and a result of another underlying problem, such as an untreated urinary tract infection or major changes in blood sugar. If confusion is disregarded as a normal symptom for elderly patients in the hospital these minor illnesses may be overlooked and quickly turn into devastating complications.

Confusion can be resolved. Thus, it is quite shocking that more attention is not placed on assessing new onsets of dementia or delirium in the hospital setting. In addition, Fick & Foreman demonstrated in their study that symptoms of depression, urinary incontinence, weight loss, comorbidity, and use of restraints were much more evident in patients with delirium compared to those without presentation of delirium (2000). Traditionally, confusion is easy to recognize, however, each patient, depending on his or her emotional state and the stage of the disease process, may present differently in the clinical setting. In addition, even within the same individual, different triggers can precipitate different behaviors at different times. Despite the poor outcomes for these patients, nurses and physicians are failing to recognize the subtle changes in confusion that accompany delirium and DSD (Fick, Agostini, & Inouye, 2002).

This is another gap in the knowledge that needs to be addressed with nurses in the clinical setting. Due to poor prognosis related to patients with confusion and hospitalization, it is vital to discuss assessment strategies for delirium and DSD. Research shows that clinicians must take time to speak to the patients and their families, listen to their complaints, and address new changes in confusion, accordingly. In a study by Inouye et al. people with dementia are most vulnerable to delirium, however, at the same time, they are proving to be more responsive to preventative measures
Some of the traditional prevention strategies include: orientation, therapeutic activities, mobility, and avoidance of psychoactive drugs, were also mentioned by the participants in this study (Inouye, 1999).

In regards to patient outcome and prognosis, it appears that delirium and DSD are more important than previously understood. Not only are nurses less likely to recognize changes in cognition, but they also lack vital assessment tools to do so. Education regarding the pathophysiology of the disease and significant signs and symptoms that would alert nurses to new changes in mental status must be provided to students and practitioners, alike. In addition, hospitals and medical organizations need to develop a screening tool, similar to a “fall assessment” that nurses can use daily in the clinical setting to objectively determine a new onset of delirium or DSD.

In addition, the organizational structure of acute care facilities needs to be addressed in order to allow nurses appropriate time to care for all of their patients. While there is a commitment to enhancing the quality of life for the patients and dedication from the nurses to providing the best care possible, very often the organizational system of the acute care facility is not structured to do so. It surfaced from the data that in the hospital setting, most of the administrative attention is focused on patient safety and protecting the patient from harming him/herself and others. Potentially, this policy could have a negative outcome because it focuses on managing the symptoms, but does not correct the underlying pathophysiology. Typically, nonpharmacological treatments are used as diversions to distract the patient in an effort to keep him/her safe, rather than utilizing them in conjunction with other treatment strategies to alleviate the causes of the delirium.

Additionally, problems with understaffing, increased patient load and rising demands placed on direct caregivers limits the time a nurse is able to spend with each individual patient. In addition, for patients with altered cognitive states and/or risk for self harm, certified assistive nursing personnel are being pulled away from the floor to sit in these patients’ rooms. Although effective in providing direct one-to-one care for that specific confused patient, it leaves the nurse on the floor with even more duties and responsibilities. On nightshifts the problem just becomes worse, so nurses are forced to be
more creative and work together, such as having the patient sit in a chair next to the nurse’s station so that all of the nursing staff can keep a watchful eye on him/her. Scheduling is organized to maximize the efficiency of the service delivery rather than address the individual needs of the nurses and the patients on a day to day basis.

Focus groups provide the opportunity for personal dialogue and individual response (Morgan, 1998). What better way to determine the knowledge and perceptions of acute care nurses, than by asking them directly? This was the major aim of the study. By asking open ended questions to small groups, comprised of nurses similar in rank and position, the participants have the freedom to provide individual answers based on their personal experiences as well as build on the responses from others. The group setting facilitates a more dynamic discussion than interviewing subjects individually. Thus, it becomes clear that this study can have a dramatic impact of the future of nursing care provided to patients in the hospital setting with confusion. A complete research agenda for assessing and managing confusion related to delirium and dementia in older adults in the hospital can be viewed in Table 3 (Fick, Agostini, & Inouye, 2002).

There are a number of barriers that prevent nonpharmacological measures from being adopted in the clinical setting, and thus, education is the key. It is important to develop educational programs for healthcare professionals, family members, and caregivers to improve the recognition of new onsets of confusion in the hospital. In addition, researchers must provide teaching on the negative consequences related to untreated delirium in the hospital and discuss measures that nurses can take to prevent it from occurring. Due to the lack of knowledge related to nonpharmacological treatment regimes, it is necessary for organized training to be initiated. A thorough explanation, as well as a hands-on approach is essential to increase nurses’ understanding, as well as provide appropriate interventions in the clinical setting. Providing extensive training to one experienced nurse and then having her become the trainer to teach the management strategies to her peers seems like an effective approach to diffuse the research data into the clinical setting. Not only do nurses need to be taught the
different nonpharmacological techniques that are available and how to use them, they need to feel comfortable

Table 3: A Research Agenda for Addressing Confusion in Elderly Patients in the Hospital

<table>
<thead>
<tr>
<th>Diagnosis and Evaluation:</th>
<th>Redefine diagnostic criteria and develop assessment tools for new onsets of delirium</th>
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<tbody>
<tr>
<td></td>
<td>• Distinguish important clinical features of delirium with dementia versus exacerbation of existing dementia and common behavioral disturbances associated with each.</td>
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<td></td>
<td>• Clarify factors that can be used to recognize delirium in patients with and without dementia.</td>
</tr>
<tr>
<td></td>
<td>• Develop an effective assessment tool to define a person’s baseline level of cognition.</td>
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<td></td>
<td>• Develop effective measuring tools to assess changes in confusion.</td>
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<tr>
<th>Epidemiology:</th>
<th>Determine the natural course of the disease and typical outcomes for patients with dementia and delirium</th>
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<tr>
<td></td>
<td>• Determine dementia subtypes and stages of the disease and the associated impact on the development of delirium.</td>
</tr>
<tr>
<td></td>
<td>• Separate cases present on admission from incidental cases.</td>
</tr>
<tr>
<td></td>
<td>• Assess whether a history of delirium in persons with dementia is a surrogate marker for other factors in dementia.</td>
</tr>
<tr>
<td></td>
<td>• Describe short and long term outcomes.</td>
</tr>
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</table>

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<tr>
<th>Risk Factors:</th>
<th>Analyze risk factors associated with delirium in persons with dementia.</th>
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<tr>
<td></td>
<td>• Develop a predictive model for dementia patients considered to be at high risk for developing delirium.</td>
</tr>
<tr>
<td></td>
<td>• Distinguish the time period at which patients with dementia are most at risk for developing delirium.</td>
</tr>
<tr>
<td></td>
<td>• Assess which risk factors can be reduced with pharmacological and nonpharmacological intervention.</td>
</tr>
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<tr>
<th>Prevention/Management:</th>
<th>Establish cost effective, replicable, and time efficient approaches to the prevention and management of delirium in persons with dementia.</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>• Provide teaching to healthcare professionals, family members, and caregivers on what signs and symptoms to be alert for in recognizing delirium.</td>
</tr>
<tr>
<td></td>
<td>• Develop educational programs and hands on instruction for health care professionals on nonpharmacological treatment strategies to utilize in the hospital to manage episodes of confusion.</td>
</tr>
<tr>
<td></td>
<td>• Assess the cost effectiveness of delirium prevention using nonpharmacological treatments.</td>
</tr>
<tr>
<td></td>
<td>• Assess prevention of delirium and dementia across all settings.</td>
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</tbody>
</table>

with the strategies, and also have adequate time to implement them. The main goals and strategies for the management of confusion related to delirium and dementia include early detection, prevention of complications, and management of symptoms with therapeutic treatments that will control the behaviors, as well as alleviate the underlying causes. With the cooperation of the administrative personnel, the research team, and the practitioners, these goals can be accomplished. Once these
nonpharmacological therapies have been implemented, more research studies will need to be conducted to evaluate the effectiveness in regards to the management and prevention of confusion in hospitalized elderly adults. In the end, nurses will be more successful in assessing the symptoms of confusion, protecting their patients from harm, as well as finding the balance in order to provide quality care to all of their patients.
Appendix A

Informed Consent

Informed Consent Form for Social Science Research
The Pennsylvania State University

Title of Project: Focus Groups On Assessment and Management of Confusion in Older Adults

Principal Investigator: Donna Fick, PhD, RN
201 Health & Human Development East
University Park, PA, 16802
(814) 865-9325; dmf21@psu.edu

Other Investigator(s): Ann Kolanowski, PhD, RN
106 Health & Human Development East
University Park, PA 16802
(814) 863-9901; amk20@psu.edu

Melinda R. Steis, MS, RN
203B Health & Human Development East
University Park, PA 16802

Janice Penrod, PhD, RN
201 Health & Human Development East
University Park, PA 16802

1. Purpose of the Study: The purpose of this research study is to explore how registered nurses, licensed practical nurses, nurse assistants, nurse supervisors, clinical nurse specialists or other nurses feel about caring for older adults with confusion and to ask about your thoughts regarding the computer screens if you cared for patients who were enrolled in the END-DSD pilot study and used the screens.

2. Procedures to be followed: You will be asked to participate in a one hour focus group where you will complete a demographic data form that asks questions about your age, gender, and race/ethnicity. You will then be asked to respond to several questions related to how healthcare providers felt about working with the computer screens and protocols in the END-DSD pilot study. We will also ask you your general thoughts about assessing and caring for older adults with acute confusion. Each focus group will be composed of no more than 8 participants. No personal identifying information will be attached to responses. Your responses will be audio taped for verbatim transcription. The audio tapes will be physically destroyed once the transcription and data are analyzed (on or about March, 2009), but the transcripts of the audiotapes will be kept for three years in Dr. Fick’s locked file cabinets and then shredded by March, 2012. No personal identifying information will be on the transcripts. Only authorized research personnel will have access to the transcripts.
3. **Benefits:** You may learn more about how others utilized the computer screens and protocols, and the information gained from the focus groups may help us to design future studies in this area.

4. **Duration:** The focus group will take one hour.

5. **Statement of Confidentiality:** Your participation in this research is confidential. The data will be stored and secured at The School of Nursing, Room 307F, Health & Human Development East in a locked file. No personal identifying information will be included in the transcription of the audiotapes. These tapes will be destroyed at the completion of data analyses (Dec., 2009) and the transcription of the tapes will be physically destroyed by Dec., 2012. In the event of a publication or presentation resulting from the research, no personally identifiable information will be shared. If you speak about the contents of the focus group outside the group, it is expected that you will not tell others what participants said.

6. **Right to Ask Questions:** Please contact Donna Fick at (814) 865-9325 OR (814) 574-1716 with questions, complaints or concerns about this research.

7. **Payment for participation:** Participants will receive their choice of $20 cash or a $20 Sheetz gift certificate for their participation in the one hour focus group.

8. **Voluntary Participation:** Your decision to be in this research is voluntary. You can stop at any time. You do not have to answer any questions you do not want to answer. Refusal to take part in or withdrawing from this study will involve no penalty or loss of benefits you would receive otherwise.

Please indicate your preferences below with your signature:

**Audio Taping**

| I give my permission to be AUDIO taped | I do not give my permission to be AUDIO taped |

**Direct Quotes**

| I do give my permission for portions of this interview to be directly quoted in publications/presentations |
| I do not give my permission for portions of this interview to be directly quoted in publications/presentations |

You must be 18 years of age or older to take part in this research study. If you agree to take part in this research study and the information outlined above, please sign your name and indicate the date below.

You will be given a copy of this consent form for your records.

<table>
<thead>
<tr>
<th>Participant Signature</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Person Obtaining Consent</td>
<td>Date</td>
</tr>
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</table>
Appendix B

Demographics Sheet

Focus Group Demographics

1. Age in years:__________

2. Gender:

   Female_____  Male_____

3. Race/ethnicity__________________

4. Type of Nurse:

   RN____  LPN____
   Clinical Nurse Spec or Nurse practitioner____
   RN Clinical Supervisor____
   CNA__________
   Other (please write in)_____________

5. Number of Years You Worked in This Setting:_______

6. Number of Years You Have Been a Nurse or CNA

7. Average Hours per Week You Work in This Setting:_______

8. On Average How Often Do You Encounter Chronic Confusion or Dementia in Patients You Care For:

   Every day______
   Several times per week________
   Once per week________
   Once per month_______
   Rarely_________

9. On Average How Often Do You Encounter Delirium or Acute Confusion in Patients You Care For:

   Every day______
   Several times per week________
   Once per week________
   Once per month_______
   Rarely_________
### Appendix C

#### Flow Chart of Focus Group Discussion (60-minute session)

<table>
<thead>
<tr>
<th>Purpose</th>
<th>Sample Queries</th>
<th>Approximate Time Allotment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introductory comments: moderator welcomes</td>
<td>Welcome</td>
<td>&lt; 1 minute</td>
</tr>
<tr>
<td></td>
<td>Overview of purpose and process</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Guidelines/ground rules (All scripted, memorized)</td>
<td></td>
</tr>
<tr>
<td>Opening question: introduce commonalities among group members</td>
<td>“Let’s start with introductions. Would you please begin by telling us your name and a little bit about your interactions with older adults with acute confusion/delirium?”</td>
<td>10 minutes</td>
</tr>
<tr>
<td>Introductory question: begins focus; reflect and connect with topic</td>
<td>“You all have indicated your experience in working with persons with delirium. What we’d like to focus on now is how you assess and manage confusion of older adults in the hospital. Think for a moment on a specific patient that you cared for…”</td>
<td>15 minutes</td>
</tr>
<tr>
<td></td>
<td>4) “What was your experience with this patient?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• What did they look like or what were they doing?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• How did you know they had an ACUTE confusion?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• How did you assess their mental status (MS) or confusion?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Did you use a specific mental status tool or instrument to assess their MS?</td>
<td></td>
</tr>
</tbody>
</table>
Transition questions: move toward key issues; tighten focus

5) How did you **manage** their nursing care related to their confusion?

- Think about the terms “alternative therapy” or “nonpharmacological (non-drug) interventions or treatment.” What if anything do they mean to you?

- Can you **think about and describe** a specific time when you used a nonpharmacological or alternative method of treatment?

6) Do you think the nonpharmacological strategy was effective? If not, what factors do you feel contributed to the failure?

7) What do you think would have **helped you** in this situation in the future?

8) Anything else you would like to tell us about assessment or management of confusion in older adults?
Key Questions:
Focus on the particular issues with use of electronic health record screens; full discussion; show them a handout of the screens, use probes to get details

1) “What did you like **LEAST** about the computer screens and protocol? 15 minutes

2) What if anything would you **ELIMINATE** from the causes and/or management screen?

3) What did you like **MOST** about the computer screens and protocol?

4) Did you use the sleep protocol?

5) Did you use the sleep kit that was provided?

6) What was your experience with the sleep protocol

Under what conditions might they be used successfully?

For which type of patient were they **MOST** and **LEAST** successful?

**Probe**: details on actual experiences, perceived effectiveness of intervention, failed attempts to intervene, how success is measured
<table>
<thead>
<tr>
<th>Ending: Provide closure; opportunity for last comments or reflection</th>
<th>Moderator gives brief summary of purpose and discussion.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>“Is that it? Did we miss anything?”</td>
</tr>
<tr>
<td></td>
<td>“Do you have anything to add?”</td>
</tr>
<tr>
<td></td>
<td>3 minutes</td>
</tr>
</tbody>
</table>
References


VITA

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Education


Employment


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Student Nurse Extern, Christiana Hospital, Newark, Delaware. May 2008 – Present.

Teaching Assistant for Pathophysiology, Pennsylvania State University. January 2010 – Present.

Honors and Certifications

CPR and AED Certification, American Heart Association, Christiana Hospital.

Sigma Theta Tau International Nursing Honor Society, Beta Sigma Chapter, Pennsylvania State University

Phi Eta Sigma National Honor Society

College Activities

SNAP (Student Nurse Association of Pennsylvania) member, Pennsylvania State University

Penn State Women’s Gymnastics Varsity Team Member, Pennsylvania State University

Student-Athlete Advisory Board Member, Pennsylvania State University

THON Volunteer, Pennsylvania State University
**Keynote Addresses, Invited Talks and Tutorials**