Published in final edited form as:

J Gerontol Nurs. 2017 December 01; 43(12): 21–28. doi:10.3928/00989134-20170623-01.

Implementing Nurse-Facilitated Person-Centered Care Approaches for Patients with Delirium Superimposed on Dementia in the Acute Care Setting

Andrea Marie Yevchak, PhD, GCNS-BC, RN¹, Donna Marie Fick, PhD, GCNS-BC, RN, FGSA, FAAN¹, Ann Marie Kolanowski, PhD, RN, FGSA, FAAN¹, Todd Monroe, PhD, RN-BC, FGSA, FNAP, FAAN², Anna Levriere, MPH³, and Lorraine Mion, PhD, RN, FAAN⁴

¹The Pennsylvania State University College of Nursing

²Vanderbilt University School of Nursing

³FHI 360, Durham, NC

⁴The Ohio State University College of Nursing

Abstract

Little is understood about the use of Person-Centered Care (PCC) for individuals with delirium superimposed on dementia (DSD), especially in the acute care setting. As part of a larger clinical trial, the purpose of this exploratory study was to describe examples and qualitatively derived themes of nurse-facilitated, person-centered care for hospitalized older adults with dementia and delirium. A total of 750 delirium rounds were analyzed across three diverse acute care sites. Qualitative derived themes of PCC included: 1) Knowing the Patient's Baseline; 2) Knowing the Patient's Interests and Values; 3) Enhancing Sensory Abilities to Communicate; 4) Individualizing Cognitive Stimulation; and 5) Enhancing Behavioral Approaches to Comfort and Sleep. Barriers included failure to see the patient as an individual and lack of time. Principles of PCC were effectively utilized, demonstrating the potential for PCC to ease the burden of DSD for all members of the healthcare team.

Person-centered care is considered to be the standard of care for older adults with dementia because it improves quality of care and quality of life (Clissett, Porock, Harwood, & Gladman, 2013; Van Haitsma et al., 2012; Van Haitsma et al., 2013). Person-centered care (PCC) can be defined as knowing the individual, his needs and preferences, and using that information to shape the delivery of his healthcare (American Geriatrics Society, 2016; White, Newton-Curtis, & Lyons, 2008). PCC relies on reciprocal communication between the individual and all stakeholders. The majority of research focusing on implementation and outcomes of PCC in the context of people with dementia has focused primarily in long-term care (Shier, Khodyakov, Cohen, Zimmerman, & Saliba, 2014). Little is known regarding the models or delivery of PCC in the context of people with delirium superimposed on dementia (DSD) in the acute care setting. Thus, there is a critical need to continue improving our understanding of PCC in hospitalized people with dementia.

Persons with dementia and delirium are likely to benefit from instituting PCC in the context of an acute care setting, yet this has not yet been fully explored. Up to 50% of older adults

with dementia will experience delirium while in the hospital (Fick, Agostini, & Inouye, 2002). The outcomes of hospitalization for these highly vulnerable individuals includes increased risk of mortality and morbidity; greater rates of cognitive and physical declines (Krogseth et al., 2016; Morandi et al., 2015a); increased risk of institutionalization; and overall higher healthcare costs (Fick, Steis, Waller, & Inouye, 2013).

While studies have shown that nurse-led and multi-component delirium interventions result in reducing the incidence and severity of delirium in hospitalized older adults (Bannon, McGaughey, Clarke, McAuley, & Blackwood, 2016; Marcantonio, Flacker, Wright, & Resnick, 2001; Siddiqi et al., 2016; American Geriatrics Society, 2016), we don't know whether acute care nurses and staff implement person-centered care in persons with dementia and delirium. This study was part of a larger study aimed at improving nurses' practices in the assessment and management of delirium superimposed on dementia. The purpose here is to describe exploratory examples and themes of nurse-facilitated person-centered care for this vulnerable group.

Methods

The current study is an exploratory, descriptive study converging quantitative and qualitative data to address PCC in hospitalized older adults with dementia and/or delirium. It is a sub-analysis of data collected from a five-year, cluster-randomized trial of Early Nurse Detection of Delirium Superimposed on Dementia (END-DSD) (1R01 NR011042; [ClinicalTrials.gov](https://clinicaltrials.gov)). END-DSD utilized an intervention consisting of four elements to improve nurses' recognition and management of delirium in hospitalized older adults with pre-existing dementia: 1) nursing education; 2) computerized decision support embedded within the electronic health record (EHR); 3) a designated unit delirium champion; and 4) weekly rounding sessions led by an advanced practice nurse. Data presented here was captured during the weekly rounding sessions with the designated unit delirium champion. PCC drove development of the delirium intervention by emphasizing that knowing the patient and individualizing care were important for this population. This is particularly important for delirium in the presence of dementia where behavioral and psychological symptoms of distress may be more common and lead to over medication and the development of delirium (Inouye, Westendorp, & Saczynski, 2014). As the nurse identified appropriate risk factors, targeted nonpharmacological interventions would then emerge as embedded within the EHR that could guide the nurse's decision and implementation of strategies specific to the patient's individual characteristics and preferences. For example, nursing staff was encouraged to talk with the patient and family members to learn more about hobbies, interests, and occupation so that cognitive interventions and behavioral approaches could be tailored to their preferences and in the case of PWD possibly avoid over medicating. Institutional Review Board (IRB) Approval was obtained from each facility and the Penn State IRB.

Education was provided to nursing staff regarding delirium, risk factors, and appropriate identification and management of delirium per the individual as illustrated above. Computerized decision support included use of the Confusion Assessment Method (CAM)

(Inouye et al., 1990) to identify delirium, determine individual risk factors for delirium, and targeted strategies to manage delirium specific to each older adult.

Measures

A Rounding Form (Appendix A) was utilized during each rounding session and included both closed and open-ended questions, serving as a standardized checklist for rounds. The nurse facilitator completed the rounding form. General descriptions of the rounds, such as who was in attendance, length of rounds, and categories of items discussed during rounds were also included. The rounding forms asked if different aspects of care specific to this population were discussed during each rounding session, such as delirium assessment; strategies put into place to prevent and/or manage delirium including mobility protocols, sleep strategies, and cognitive stimulation; provision of pharmacological and non-pharmacological interventions, and communication about discharge. Risk factors and management strategies were evidence-based approaches to care for this population and setting.

Procedures

Weekly rounding sessions are the focus of the analyses presented here regarding the application of person-centered care. Rounds were initiated and conducted weekly on every shift by the nurse facilitator, who was a research team member. All nurse facilitators were board certified Advanced Practice Nurses (APNs) by the American Nurses Credentialing Center (ANCC) and were either a geriatric clinical nurse specialist or nurse practitioner. Designated delirium unit champions, a staff nurse employed by the facility, attended and co-facilitated rounds if they were available. Rounds were specifically scheduled to align with the unit champions work schedule, but due to unforeseen circumstances or unit needs they were not always present at rounds. Each unit had at least one nurse designated as a delirium champion per shift who was considered an expert resource. The patient and informal, family caregiver, if present, nursing staff, physicians, pharmacists, social workers, physical therapists, nursing assistants, and students also attended rounds as available. Relative to day shift rounds, rounds conducted on evening or night shifts in general had fewer of these individuals in attendance. Geriatric care issues were discussed on rounds, with an emphasis on assessment and management of cognition and function. Rounding sessions that were analyzed occurred between September 2010 and November 2013 across all shifts at the following settings: regional medical center in Central PA, a regional trauma center in Western Central PA, and an academic medical center in TN.

Data Analysis

Descriptive statistics were determined on all nursing rounds using quantitative data. All statistical analyses were performed using SAS 9.4. Qualitative analyses were conducted using data provided in the open-ended questions. Two members of the research team independently reviewed the rounding form for open-ended comments showing recognition of individual preferences, knowing or learning about the patient as an individual, and understanding their needs as related to delirium assessment, medications, pain, mobility, sleep, cognitive stimulation, communication, discharge teaching, and other items that were discussed and/or acted on by the nursing staff or research staff as indicated on the rounding

form. Individual codes were discussed and agreed upon as a group and condensed and expanded in a series of meetings with four members of the research team to incorporate the breadth and depth of person-centered care included on the rounding forms. From these codes, high-level themes were developed and thematic analysis was conducted by the research team to identify specific examples of PCC for persons with delirium and dementia.

Results

Rounding sessions (n=750) were conducted between September 2010 and November 2013 and typically occurred weekly across all shifts. The three clinical sites included a regional medical center (n=270), a regional trauma center (n=297), and an academic medical center (n=183). A total of 803 patients were seen during the rounding sessions, with 185 of these patients being active study patients enrolled in the parent study. Total number of patients seen at the three sites includes: 335 at the regional medical center, 159 at the regional trauma center, and 309 at the academic medical center. The study was initiated in a staggered fashion at each of the sites, which led to a different number of total rounds performed at each site. The majority of rounds (51.4%) included Research Staff and the Unit Champion. Over three-quarters (76.3%) of rounds included additional members. Delirium rounds focused primarily on discussion of delirium assessment (75%), while additional information including pharmacological causes for delirium (61%), the need for increased physical activity (60%), and establishing a sleep routine to prevent delirium (53%) were also discussed (See Table 1).

Person-Centered Care in the Context of Dementia and Delirium

Five qualitative themes that demonstrate PCC in the context of a larger research study will be discussed first, followed by barriers to implementing PCC in an acute care setting for persons with dementia and delirium. Qualitative analysis revealed five themes related to PCC including: 1) Knowing the Patient's Baseline; 2) Knowing the Patient's Interests and Values; 3) Enhancing Sensory Abilities to Communicate; 4) Individualizing Cognitive Stimulation; and 5) Enhancing Behavioral Approaches to Comfort and Sleep. In addition to themes of PCC, barriers to providing PCC in this population and setting were also identified in the data and will be discussed. Barriers included: 1) Failure to Recognize the Patient First and 2) Not Enough Time.

Knowing the Patient's Baseline—The ability to provide individualized care is a key aspect of PCC and allows for a foundational understanding of the individual and his family so that goals for care can be established (American Geriatrics Society, 2016). Being able to provide this type of care means that formal healthcare providers need to be aware of an individual's baseline cognitive and physical function, as well as his preferences for care (Curyto, Van Haitsma, & Towsley, 2016; Van Haitsma et al., 2013). This is particularly important to persons with dementia who may develop delirium. The ability to assess for delirium rests upon understanding prior cognitive and physical function.

Since establishing baseline in an acute care setting is often difficult, our study emphasized the need to talk with family members and/or the facility where they patient lived to

determine the patient's normal function and cognition. The importance of taking the time to determine a patient's baseline is illustrated by the following report during a round:

“The nurse called the skilled nursing facility the patient has been living in and spoke to the nurse there. She obtained the patient's baseline functional status & was able to determine a change from her baseline. “

On another round it was reported that a noted change in mental status contributed to a change in medication:

“MD stopped Seroquel today after notice of changes in mental status by nursing staff”

Knowing the Patient's Interests and Values—Knowing what is important to each patient, what they value, their interests, and their hobbies was considered to be a crucial aspect of PCC. Not only does this help a patient hold on to his sense of self, it also provides a means of establishing a connection and bond of trust between nursing staff and patients and allows for individualized care. Research study staff provided the following quote while completing rounds with nursing staff:

“88 year old, did MMSE (Folstein, Folstein, & McHugh, 1975) (had RN score). Asked him what he did formerly (claims adjustor) and (he stated that he) enjoyed classical music. MMSE score 8/30.... the unit supervisor, to follow up with RN with cognitive activity/sensory board, cards, sleep kit and music.”

On another round, the nurse reported that she was taking the time to find out what interested the patient and was going to record it on a whiteboard in the patient's room for other staff to know also:

“Nurse stated she is getting a whiteboard and will write down patient's interests – music, writing letters. Discussed what she liked- grandchildren, country music”

Enhancing Sensory Abilities to Communicate—For many patients with dementia, communicating is often difficult, especially so in a hospital setting. Patients' hearing aids and glasses are often not brought with them to the hospital and the environment is starkly different than what they are used to. Our study promoted the use of an amplified hearing device in conversations between the nursing staff and patients and implemented the *All About Me* board (Fick, DiMeglio, McDowell, & Mathis-Halpin, 2013). These tools improved the ability of patients to communicate, and allowed them more understanding and input into their medical care. A nurse reported the following during one of the nursing rounds:

“We went into the patient's room & gave her an amplified hearing device. It made the patient very happy & the CNA (certified nursing assistant) noted how much better they could communicate. The RN will do the MMSE later in the shift using the hearing device.”

Individualizing Cognitive Stimulation—Our nursing rounds focused on tailoring activities and cognitive stimulation for each patient by finding out what interests and

activities the patient engaged in before being admitted to the hospital. From one of the rounding forms:

“Rounded on 87-year old male with Parkinson's disease who stated, “I love word searches and country music.” Discussed with his daughter, whom he lives with, keeping his mind & body active while in hospital.”

To encourage individualized cognitive stimulation “activity kits” stocked with a wide range of activities on each treatment unit of the hospital. Nurses were encouraged to use the kits to engage the patient in the particular type of activity the patient enjoyed.

“Found out patient liked puzzles”

It was found that by tailoring the activities to the patient’s specific interests, the patient was more likely to remain engaged and show cognitive improvement.

“Family noted as saying to nurse last week that leisure activities and cards created moments of normalcy”

This theme has some overlap with the previous theme identified in the data of *Knowing the Patient’s Interests and Values*, but it was specific to the type of intervention model used in the parent research study.

Behavioral and Non-Drug Approaches to Comfort and Sleep—Our study addressed issues of unmet needs during rounds and encouraged the nursing staff to view agitation as a presenting symptom for an often-unrecognized underlying condition or unmet need, such as infection, pain, or hunger. Behavioral interventions to respond to agitation in patients were promoted, versus using drugs to calm them. Thus, we regarded reducing the number of psychoactive medications a patient was receiving and increasing behavioral approaches in response to acts of agitation to be a critical aspect of PCC in the hospital setting. This is exemplified by the following quote during one of the nursing rounds:

“Nurse will try non-pharm sleep protocol”

Our study nurse facilitators advocated review of the medications lists of each patient enrolled in the study and made as needed suggestions for changes to the unit champions and nursing staff. They educated the nurses about potentially inappropriate medications, using tools such as the Beer’s criteria, and encouraged limiting medications that may have harmful effects in patients with dementia. Our non-drug approaches also extended to sleep enhancement.

“We have one patient who has been very agitated at night. We have tried everything we can think of and haven’t wanted to use medications. Last night we gave her a baby doll [used based on an assessment of preferences] to hold and she immediately became a new person! She was very calm and then slept the whole night!”

An intervention component for this research study was conceptualized as an individual approach to avoiding medications. Although not typically an essential element of PCC, in the acute care setting, agitation, restlessness, and other behavioral symptoms of dementia are often managed pharmacologically. However, these behavioral symptoms are often the result

of unmet needs, such as thirst, hunger, or pain (Algase et al., 1996; Kolanowski, Van Haitsma, Resnick, & Boltz, 2014; Whall & Kolanowski, 2004). The intervention encouraged assessing for and meeting unmet needs with non-drug approaches prior to administering drugs.

Barriers to Person-Centered Care in this Context

In the process of identifying instances where PCC was implemented by hospital and nursing staff, the data also revealed several examples where PCC could have been improved. In analyzing the documented areas of improvement we found them to be primarily in two categories: Failure to Recognize the Patient First and Not Enough Time.

Failure to Recognize the Patient First—The data revealed instances where PCC would have been promoted if the patient had been fully included in the discussion. By not doing so, the nurses overlooked the patient's opinions and ability to make their own decisions. An example of this is when a patient's family members were consulted to ascertain the patient's preferences and interests as they related to cognitive stimulation and activities. The nursing staff approached the family to find out what the patient liked, when preferences could have been asked of the patient first; however, it is not known from the rounding forms whether nursing staff did first try to ask the patient and due to impaired cognitive or altered communication that the patient was unable to answer.

Not Enough Time—A majority of the observed areas where PCC could have been improved related to time as a deterrent, as demonstrated by the following quote during rounds:

“Unit Champion present but busy- expressing concern, does not have time (sometimes) to help peers- patients with dementia take time to implement non-drug alternatives”

We also found that occasionally the resources for individualizing cognitive stimulation were not utilized due to time constraints, as illustrated by the quote below:

“Nurse said she had never used the cognitive stimulation kit due to time demand”

Nurses also reported not having time to perform formal cognitive testing, such as the Mini-Mental State Examination (Folstein, Folstein, & McHugh, 1975), or baseline cognitive evaluation on the patient. A baseline and routine evaluation of cognition are critical in helping prevent and treat delirium in patients with dementia, which is also critical to knowing the individual in PCC.

“Nurse states that she doesn't have the time to establish a baseline understanding of her patients.”

Additionally, there was also repeated documentation of the nurses and Unit Champions being too busy or lacking the time to fully participate in the rounds or use the study screens, as noted in the quote below:

“Saw patient (non-study) but nurse was very busy. Patient was delirious with history of dementia according to MD. Nurse said she would try to activate computer screens but ‘too busy now.’”

Discussion

The purpose of this paper was to describe instances of person-centered care in an acute care setting for individuals with dementia and delirium within an existing delirium clinical trial. Although we did not use PCC as a framework for this intervention we did emphasize aspects of PCC such as knowing the patient and individualizing care. The American Geriatrics Society (AGS; 2016) recently convened an Expert Panel on Person-Centered Care where a consensus on a definition of PCC was put forth after a comprehensive review of the literature. The AGS themes of *Knowing the Patient’s Interests and Values* and *Individualizing Cognitive Stimulation* relate to elements of forming a foundation for healthcare based on preferences (AGS, 2016) and can be implemented in the clinical arena by focusing on assessment and also by tailoring interventions as identified by the themes found within this research.

Focused assessment is exemplified by the themes of *Knowing the Patient’s Baseline* and *Knowing the Patient’s Interests and Values*. *Knowing the Patient’s Baseline* mental status is a critical component of assessment for delirium in persons with pre-existing dementia considering overlap of symptoms; and the lack of full understanding of management of delirium once it occurs and prevention and management of delirium in persons with dementia (Morandi et al., 2017). Assessment is made even more difficult because of the lack of consensus on how to define and also detect delirium in persons with dementia (Morandi et al., 2017; Richardson et al., 2016). Family and other informal caregivers need to be included in care, especially to assist in detection of delirium. Together with the healthcare provider, the patient and family should come together to provide PCC as outlined by AGS (AGS, 2016). Caring for individuals with dementia and delirium is challenging and potentially distressing for healthcare providers (Morandi et al., 2015b). Recent research suggests that when caring for these individuals, healthcare staff are concerned about understanding their needs and being able to provide appropriate care (Morandi et al., 2015b). *Knowing the Patient’s Baseline, Interests, and Values* utilizes elements of person-centered care for individuals with dementia and delirium in the acute care setting through focused assessment and when implemented may help to alleviate the associated issues of caring for individuals within this context.

Failure to Recognize the Patient First is an example of the identified AGS barrier of *Traditional Approaches to Clinical Practice*, which posits that we often see the healthcare provider as the leader and patient as the follower. By implementing focused assessment of the *Patient’s Baseline, Interests, and Values* we can allow older adults with dementia and delirium to communicate and participate to the fullest extent possible as a member of the healthcare team. This PCC change addresses the barrier of *Failure to Recognize the Patient First* as it relates to assessment. Although it is still beneficial that the nursing staff in this study took the time to find out the patient’s interests from the family, preserving the patient’s autonomy is a critical aspect of PCC and so the patient should always be consulted whenever

possible. Utilizing the framework of PCC for focused assessments allows for integration of PCC elements.

Tailoring interventions incorporates the themes of *Enhancing Sensory Abilities to Communicate*; *Individualizing Cognitive Stimulation*; and *Enhancing Behavioral Approaches to Comfort and Sleep*. Utilizing PCC approaches may help to ease this burden when staff are trained in these methods and the environment is modified for the inclusion of PCC principles. Small changes in delivering interventions, such as the provision of low-cost hearing amplification devices or white board communication templates like the *All About Me Board* (Fick, DiMeglio, et al., 2013), can be readily used for older adults to facilitate participation to the fullest extent possible in healthcare decisions and activities. Assessment of *Interests and Values* will allow for cognitive stimulation to be tailored to the person. Barriers to the implementation of tailored interventions were seen in the theme of *Lack of Time*. Small, person-centered changes presented here can be incorporated into routine clinical care and can begin the movement of an institution's culture toward PCC. Table 2 lists some resources nursing and other healthcare professional can use to learn more about PCC for delirium care.

Limitations and Strengths

The purpose of END-DSD was to test an intervention consisting of four elements on nurses' recognition and management of delirium in hospitalized older adults with pre-existing dementia. As such, we cannot determine if there is a relationship between provision of PCC and delirium occurrence. Another significant limitation is that the rounding form used to collect the data analyzed here was not meant to describe facilitators and barriers to PCC in this context, nor patient and family engagement with research or nursing staff, so data surrounding PCC may not have been adequately described. No additional long-term follow-up was done to see if the changes continued after the end of the research study and turnover of nursing staff may influence any long-term findings. A final limitation is the possibility that the nursing staff's behaviors were influenced by the presence of the research team, which led to more instances of PCC than would have occurred in the absence of the research team member. Despite these limitations, the study has significant novelty and strengths. It is one of the first to describe PCC for this population in the acute care setting. Being nested within a larger, cluster-randomized controlled study allowed for a large sample size over three different sites.

Future Research

Areas for future research include systematically and objectively measuring the impact of widespread PCC in the acute care setting to determine the effect on occurrence of delirium. This is made even more difficult since detecting delirium in the presence of dementia is difficult and no specific criteria to do so have been established (Morandi et al., 2017). In addition, there is a need to establish a validation system for coding qualitative measures of PCC, cross-referencing of this system with the widely recognized AGS definition of PCC. Lastly, interventions for dementia and delirium may be more effective if designed with key elements of PCC in mind. If we target the person first and the disease second, we may improve the efficacy of our intervention strategies.

In summary, our study demonstrates successful facilitation and implementation of real world examples of person-centered care in hospitalized older adults with delirium superimposed on dementia. PCC can be implemented through delirium rounds at a variety of hospital settings. While further investigation is needed to see if the adopted changes remain after this research study is completed and if there is any impact on the course of delirium, we consider this exploratory approach to be a success for all members of the healthcare team.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

References

- Algaie DL, Beck C, Kolanowski AM, Whall A, Berent S, Richards K, Beattie E. 1996; Need-driven dementia-compromised behavior: An alternative view of disruptive behavior. *American Journal of Alzheimer's Disease and Other Dementias*. 11(6):10–19. DOI: 10.1177/153331759601100603
- Bannon L, McGaughey J, Clarke M, McAuley DF, Blackwood B. 2016; Impact of non-pharmacological interventions on prevention and treatment of delirium in critically ill patients: protocol for a systematic review of quantitative and qualitative research. *Syst Rev*. 5(1):75.doi: 10.1186/s13643-016-0254-0 [PubMed: 27146132]
- Clissett P, Porock D, Harwood RH, Gladman JRF. 2013; The challenges of achieving person-centred care in acute hospitals: A qualitative study of people with dementia and their families. *International Journal of Nursing Studies*. 50(11):1495–1503. DOI: 10.1016/j.ijnurstu.2013.03.001 [PubMed: 23548170]
- Curyto K, Van Haitsma KS, Towsley GL. 2016; Cognitive Interviewing: Revising the Preferences for Everyday Living Inventory for Use In the Nursing Home. *Res Gerontol Nurs*. 9(1):24–34. DOI: 10.3928/19404921-20150522-04 [PubMed: 26020577]
- Fick DM, Agostini JV, Inouye SK. 2002; Delirium superimposed on dementia: a systematic review. *J Am Geriatr Soc*. 50(10):1723–1732. [PubMed: 12366629]
- Fick DM, DiMeglio B, McDowell JA, Mathis-Halpin J. 2013; Do you know your patient? Knowing individuals with dementia combined with evidence-based care promotes function and satisfaction in hospitalized older adults. *J Gerontol Nurs*. 39(9):2–4. DOI: 10.3928/00989134-20130809-89
- Fick DM, Steis MR, Waller JL, Inouye SK. 2013; Delirium superimposed on dementia is associated with prolonged length of stay and poor outcomes in hospitalized older adults. *J Hosp Med*. 8(9): 500–505. DOI: 10.1002/jhm.2077 [PubMed: 23955965]
- Folstein M, Folstein S, McHugh P. 1975; "Mini-mental state". A practical method for grading the cognitive state of patients for the clinician. *J Psychiatric Res*. 12:189–198.
- Folstein MF, Folstein SE, McHugh PR. 1975; Mini-mental state. A practical method for grading the cognitive state of patients for the clinician. *J Psychiatr Res*. 12doi: 10.1016/0022-3956(75)90026-6
- Inouye SK, van Dyck C, Alessi C, Balkin S, Siegel A, Horwitz R. 1990; Clarifying Confusion: The Confusion Assessment Method. A New Method for Detection of Delirium. *Annals of Internal Medicine*. 113:941–948. [PubMed: 2240918]
- Inouye SK, Westendorp RG, Saczynski JS. 2014; Delirium in Elderly People. *The Lancet*, 8. 838(9920):911–922. DOI: 10.1016/S0140-6736(13)60688-1
- Kolanowski AM, Van Haitsma K, Resnick B, Boltz M. 2014; A new toolkit for behavioral health. *J Am Med Dir Assoc*. 15(4):298–299. DOI: 10.1016/j.jamda.2014.01.003 [PubMed: 24486100]
- Krogseth M, Watne LO, Juliebo V, Skovlund E, Engedal K, Frihagen F, Wyller TB. 2016; Delirium is a risk factor for further cognitive decline in cognitively impaired hip fracture patients. *Arch Gerontol Geriatr*. 64:38–44. DOI: 10.1016/j.archger.2015.12.004 [PubMed: 26952375]
- Marcantonio ER, Flacker JM, Wright RJ, Resnick NM. 2001; Reducing delirium after hip fracture: a randomized trial. *J Am Geriatr Soc*. 49(5):516–522. [PubMed: 11380742]

- Morandi A, Davis D, Bellelli G, Arora RC, Caplan GA, Kamholz B, Rudolph JL. 2017; The Diagnosis of Delirium Superimposed on Dementia: An Emerging Challenge. *J Am Med Dir Assoc.* 18(1): 12–18. DOI: 10.1016/j.jamda.2016.07.014 [PubMed: 27650668]
- Morandi A, Lucchi E, Turco R, Morghen S, Guerini F, Santi R, Bellelli G. 2015a; Delirium superimposed on dementia: A quantitative and qualitative evaluation of patient experience. *J Psychosom Res.* 79(4):281–287. DOI: 10.1016/j.jpsychores.2015.07.010 [PubMed: 26282373]
- Morandi A, Lucchi E, Turco R, Morghen S, Guerini F, Santi R, Bellelli G. 2015b; Delirium superimposed on dementia: A quantitative and qualitative evaluation of informal caregivers and health care staff experience. *J Psychosom Res.* 79(4):272–280. DOI: 10.1016/j.jpsychores.2015.06.012 [PubMed: 26286892]
- Richardson S, Teodorczuk A, Bellelli G, Davis DH, Neufeld KJ, Kamholz BA, Morandi A. 2016; Delirium superimposed on dementia: a survey of delirium specialists shows a lack of consensus in clinical practice and research studies. *Int Psychogeriatr.* 28(5):853–861. DOI: 10.1017/s1041610215002288 [PubMed: 26692021]
- Shier V, Khodyakov D, Cohen LW, Zimmerman S, Saliba D. 2014; What does the evidence really say about culture change in nursing homes? *Gerontologist.* 54(Suppl 1):S6–S16. DOI: 10.1093/geront/gnt147 [PubMed: 24443607]
- Siddiqi N, Harrison JK, Clegg A, Teale EA, Young J, Taylor J, Simpkins SA. 2016; Interventions for preventing delirium in hospitalised non-ICU patients. *Cochrane Database Syst Rev.* 3:CD005563.doi: 10.1002/14651858.CD005563.pub3 [PubMed: 26967259]
- American Geriatrics Society. 2016; Person-Centered Care: A Definition and Essential Elements. *J Am Geriatr Soc.* 64(1):15–18. DOI: 10.1111/jgs.13866 [PubMed: 26626262]
- Van Haitsma K, Curyto K, Spector A, Towsley G, Kleban M, Carpenter B, Koren MJ. 2012; The Preferences for Everyday Living Inventory: Scale Development and Description of Psychosocial Preferences Responses in Community-Dwelling Elders. *Gerontologist.* doi: 10.1093/geront/gns102
- Van Haitsma K, Curyto K, Spector A, Towsley G, Kleban M, Carpenter B, Koren MJ. 2013; The preferences for everyday living inventory: scale development and description of psychosocial preferences responses in community-dwelling elders. *Gerontologist.* 53(4):582–595. DOI: 10.1093/geront/gns102 [PubMed: 22936532]
- Van Haitsma K, Curyto K, Spector A, Towsley G, Kleban M, Carpenter B, Koren MJ. 2013; The Preferences for Everyday Living Inventory: Scale Development and Description of Psychosocial Preferences Responses in Community-Dwelling Elders. *The Gerontologist.* 53(4):582–595. DOI: 10.1093/geront/gns102 [PubMed: 22936532]
- Whall AL, Kolanowski AM. 2004; The need-driven dementia-compromised behavior model-- a framework for understanding the behavioral symptoms of dementia. *Aging Ment Health.* 8(2): 106–108. DOI: 10.1080/13607860410001649590 [PubMed: 14982714]
- White DL, Newton-Curtis L, Lyons KS. 2008; Development and initial testing of a measure of person-directed care. *Gerontologist.* 48(Spec No 1):114–123. [PubMed: 18694992]

Table 1

Most Frequently Discussed Items During Nursing Rounds

Topic	N (%) of Times Discussed
Delirium Assessment	549 (74.6%)
Medications	445 (60.5%)
Mobility	441 (59.9%)
Sleep	392 (53.3%)
Cognitive Stimulation	289 (39.3%)
Discharge Teaching	288 (39.2%)
Pain	254 (34.7%)
Communication	168 (22.9%)
Other	164 (21.9%)

Table 2

Resources for Person-Centered Care for Delirium

Resource	Web Link
American Geriatrics Society Paper on Definition and Essential Elements of Person-Centered Care	http://geriatricscareonline.org/ProductAbstract/person-centered-care-a-definition-and-essential-elements/CL020
Nursing Home Toolkit: Promoting Positive Behavioral Health	http://www.nursinghometoolkit.com/index.html
Preference Based Living and the Preferences for Everyday Living Inventory (PELI)	http://www.polisherresearchinstitute.org/assessment-instruments
Dementia Collaborative Research Centres: 14 Essentials for Good Dementia Care in General Practice	http://www.dementiaresearch.com.au/newsletters/48-2013/sum/180-ed2013.html
iDelirium	http://www.idelirium.org/home.html
American Delirium Society	https://www.americandeliriumsociety.org/
United Kingdom Alzheimer's Society: Person-Centered Care	https://www.alzheimers.org.uk/site/scripts/documents_info.php?documentID=1191&pageNumber=3