Rapid #: -24095059

CROSS REF ID: **PAC-10221791**

LENDER: **INTARCHIVE (Internet Archive) :: Main Library**

BORROWER: **YQU (The University of Queensland) :: Resource Delivery**

TYPE:	Article CC:CCL
JOURNAL TITLE:	The Nursing clinics of North America
USER JOURNAL TITLE:	NURSING CLINICS OF NORTH AMERICA.
ARTICLE TITLE:	A CRITICAL ANALYSIS AND ADAPTATION OF A CLINICAL PRACTICE GUIDELINE FOR THE MANAGEMENT OF BEHAVIORAL PROBLEMS IN RESIDEN
ARTICLE AUTHOR:	LAVOIE-VAUGHAN, NANETTE N.
VOLUME:	49
ISSUE:	1
MONTH:	
YEAR:	2014-03
PAGES:	105 - 113
ISSN:	0029-6465
OCLC #:	1587777

Processed by RapidX: 2/25/2025 7:40:30 PM

A Critical Analysis and Adaptation of a Clinical Practice Guideline for the Management of Behavioral Problems in Residents with Dementia in Long-Term Care

Nanette Lavoie-Vaughan, MSN, ANP-C, DNP*

KEYWORDS

• Clinical practice guideline • Dementia • Behavioral problems • Long-term care

KEY POINTS

- Studies show that up to 75% of patients with dementia have behavioral problems.
- Because of the current public concern about the use of antipsychotics for patients with dementia, treatment must be based on evidence-based data.
- As the number of persons with dementia continues to grow and the burden on long-term care staff to provide safe and quality care increases, evidence-based data must be used to develop individualized plans of care.

INTRODUCTION

According to experts, all persons with dementia will develop a behavior problem or a personality change as the disease progresses.[1,2] Studies show that up to 75% of patients with dementia have behavioral problems.[3,4] Clinical practice guidelines to assist health care providers in managing difficult behaviors have been developed by the American Psychiatric Association,[5] American Geriatrics Society (2012),[6] Group Health Cooperative,[7] University of Iowa Gerontological Nursing Interventions Research Center,[8] and American Medical Directors Association.[9]

STATEMENT OF THE PROBLEM

Clinical practice guidelines exist for the management of long-term care (LTC) residents' behavioral problems. However, the most commonly referenced guidelines

College of Nursing- Graduate Program, East Carolina University, Health Sciences Building Greenville, NC 27858, USA
* 3819 Donna Road, Raleigh, NC 27604.
E-mail address: nursenan1@earthlink.net

Nurs Clin N Am 49 (2014) 105–113
http://dx.doi.org/10.1016/j.cnur.2013.11.006 nursing.theclinics.com
0029-6465/14/$ – see front matter

detail protocols for psychotropic medication, but lack behavioral interventions other than 2 main categories: redirection and distraction.[10,11] These categories do not take into consideration the residents' individual needs and the applicability to the environment. Seldom, if ever, are implementation issues such as staff education and buy-in mentioned in the guidelines. Without staff that is trained to perform behavioral interventions, the plan will not succeed.[12] This scholarly project focused on these deficits.

PURPOSE

The purpose of this scholarly project was to critically analyze and adapt guidelines for managing behavioral problems of residents in LTC facilities and to draft an adaptation for implementation in the author's practice. The adaptation focused on individualizing interventions derived from evidence-based research and included strategies for maximize staff buy-in and implementation. The overall goal was to decrease the use of psychotropic medications, particularly antipsychotics, and develop an evidence-based clinical practice guideline to assist providers in meeting that goal.

BACKGROUND AND SIGNIFICANCE

The incidence of dementia is increasing in the United States. This project focused on the nurse practitioner practice in 2 states: North Carolina and Tennessee. The behavioral problems associated with dementia often prompt psychiatric consultations, which result in residents being prescribed psychotropic medications (**Table 1**).[13]

Nurse practitioners providing psychiatric consultation face many challenges. First, the administration of psychotropic medications in LTC facilities has the potential to result in deficiencies in federal regulation F222, which addressed chemical restraints, and F329, concerning unnecessary medications.[14] The U.S. Food and Drug Administration[15] has extended black box warnings to all classes of antipsychotic medications that were found to cause increased risk of death in elderly patients with dementia. Because of the current public concern about the use of antipsychotics for patients with dementia, evidence-based data must be used to determine treatment.[16]

Secondly, behavioral problems are a complex issue that is influenced by the biology of the disease, the environment in which the resident resides, psychosocial factors, and the staff's knowledge and expertise in managing the behavior. Lovheim and colleagues[17] identified that men more often exhibited aggressive and regressive behavior, wherein women more often exhibited depressive behavior. No differences between the sexes were noted for passiveness and hallucinations. Researchers have suggested the importance of assessing medical conditions, environment, medications, and other causes as a source of behavioral problems, and implementing an individualized plan of care incorporating behavioral interventions.[3,4,13,18–23] Pain,

Table 1
Statistics related to targeted population of study

Demographic	With Alzheimer Disease in Long-Term Care	With Behavior Problems
United States	43% older than age 85 y	—
North Carolina	89,223	80%–90%
Tennessee	70,494	80%–90%
Total	159,737	127,769+

Data from Alzheimer's Association Report. Alzheimer's disease facts and figures. Alzheimers Dement 2012;8:131–68. Available at: http://www.alz.org/downloads/facts_figures_2013.pdf.

infection, fear, loneliness, medication side effects, or anxiety may cause behavioral issues.[24] Cohen-Mansfield[25] suggests that behavior in patients with dementia is often an attempt to signal that a need is not being met, an effort to get needs met directly, or a sign of frustration. She identifies 4 types of behavior:

1. Reaction to stressful situations
2. Wandering and interfering with normal activities
3. Failure to inhibit actions, thoughts, and emotions
4. Mismatch between the person and the environment

Lastly, aggressive behavior continues to challenge and burden the staff of LTC facilities. Working in an LTC facility is associated with a higher risk of physical or verbal assault.[26] Staff require education and support to deal with these behaviors safely and efficiently. As many LTC facilities institute person-centered care and an ability-focused approach to care planning, the nurse practitioner must refer to an evidence-based clinical practice guideline to treat behavioral problems.[27]

SYNTHESIS OF EVIDENCE

An online search of professional organizations and guideline collection Web sites was conducted to locate pertinent clinical practice guidelines. Only those applicable to patients with dementia were selected (those from the American Psychiatric Association,[5] American Geriatrics Society (2011),[6] Group Health Cooperative,[7] University of Iowa Gerontological Nursing Interventions Research Center,[8] and American Medical Directors Association[9]). The selected guidelines were analyzed using the Appraisal of Guidelines for Research and Evaluation (AGREE) checklist (AGREE Trust, 2012),[28] and the American Medical Directors Association guideline was chosen.

A comprehensive literature review of evidence-based literature and research was conducted on CINAHL, PubMed, and Evidence-Based Medicine Reviews using the key words "dementia," "behavior," and "interventions." A total of 200 articles were obtained and sorted by level of evidence. Emphasis was placed on articles from the past 5 years. A further search was performed to narrow the focus to specific interventions using the key words "bright light therapy," "Montessori," "aromatherapy," "massage," "therapeutic touch," "pet therapy," "music therapy," and "activities." This search yielded 159 articles.

Data collected included those on assessment and treatment of behavioral problems and specific interventions for behavior modification, environmental interventions, alternative therapies, and distraction techniques. Meta-analyses and systematic reviews were evaluated using Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA),[29] and randomized-control studies were evaluated with Consolidated Standards of Reporting Trials (CONSORT).[30] The author selected 82 articles for the development of the guideline after approval from the clinical team, which was composed of a psychiatrist, 2 nurse practitioners in psychiatric practice in LTC, and the author. The articles deleted included studies with low scores on the PRISMA and CONSORT, those with predominantly anecdotal or case studies, and those with strictly opinions. The goal was to use studies with levels of evidence of 1 through 4 on the hierarchy of evidence scale, and an A or B rating on the Strength of Recommendation Taxonomy (SORT) evidence rating system. Close to 50% of the studies were on alternative therapies, and a quarter of those were conducted outside the United States. Most of the studies were on music therapy and aromatherapy, and most had small sample sizes, with a need for replication. Other interventions included games, pet therapy, swing glider use, Snoezelen multisensory rooms, massage, and light.

The remaining studies highlighted staff approach and education, distraction and redirection, and environmental changes. All of these studies were limited by small sample size, and some were limited by minimal effect.

In consultation with the clinical team, the interventions were chosen based on the strongest supporting data. This practice supports the future plans to have the guideline adopted for use and replicate the studies for those interventions used most by staff. These plans are outside the scope of this project.

CONCEPTUAL AND THEORETICAL FRAMEWORK

This project is serving as a springboard for behavior management for a significant portion of the LTC population. The project incorporated concepts related to behaviors, nursing practice, and adaptation. A framework to include these concepts had to be multilayered and address each of the concepts individually and as a whole. Furthermore, the framework considered the complexity of the project population: patients with dementia who had behavioral problems. The theory/framework addresses the antecedents of challenging behavior and how it relates to the planned interventions. The 2 theories/frameworks used were Wiedenbach's[31] *The Helping Art of Nursing* and the Progressively Lowered Stress Threshold (PLST) model.[32]

Wiedenbach's Helping Art of Clinical Nursing

The 2 tenets of Wiedenbach's[31] theory are

1. Nursing skills are performed to achieve a specific patient-centered purpose rather than just for the sake of performing the skill itself
2. Whatever an individual does at any given moment represents the best available judgment for that person

Wiedenbach defines an individual as anyone who is receiving help, instruction, or advice from a member of the health care profession. She further defines the need for help as "any measure desired by the patient or his/her caregiver that has the potential to restore or to extend the ability to cope with various life situations that affect health and wellness."[31(p54)]

Wiedenbach's theory is supported by components of a nursing philosophy, a prescriptive theory, and a practice model. The underlying nursing philosophy speaks to

- A reverence for life,
- Respect for dignity,
- Autonomy,
- The individuality of each human being, and
- A resolution to act personally and professionally on held beliefs.

The prescriptive theory focuses on a central purpose for meeting the needs of patients, which the practitioner uses in clinical practice; a prescription or guideline for the fulfillment of the central purpose; and the realities of the immediate situation that influence the central purpose. The practice model begins with observation of the presenting behavior, followed by exploration of the meaning and cause of the behavior, and determining the patient's ability to resolve the behavior with help from the health care professional.[31(p54–57)]

This theory mirrors the purpose for clinical practice guidelines for behavior management. The practice model is similar to the methods recommended for determining the cause of the behavior and being able to intervene properly.[33] It incorporates all

3 concepts of this scholarly project and is based on the science of nursing. The framework focuses on the underlying reason for behavior and how it can be managed.

Progressively Lowered Stress Threshold Model

The PLST model proposes that, "with disease progression, individuals experience increasing vulnerability and a lower threshold to stress and external stimuli."[32(p399)] PLST suggests that minimizing environmental demands that exceed functional capacity and regulating activity and stimulation levels throughout the day can reduce agitation. Specific factors include the physical environment (auditory and visual stimulation), the social environment (communication style of caregivers, influence of other residents), or factors that are modifiable but are internal to the individual (pain, fatigue, medical conditions).

Boltz and colleagues[34] identified the essentials of care for behavioral problems related to the PLST model:

1. Maximize safe function: use familiar routines, limit choices, provide rest periods, reduce stimuli when stress occurs, and routinely identify and anticipate physical stressors (eg, pain, urinary symptoms, hunger, thirst).
2. Provide unconditional positive regard: use respectful conversation, simple and understandable language, and nonverbal expressions of touch.
3. Use behaviors to gauge activities and stimulation: monitor for early signs of anxiety (pacing, facial grimacing) and intervene before behavior escalates.
4. Teach caregivers to listen to behaviors: monitor language pattern (repetition, jargon) and behaviors (rummaging) that might show how the person reduces stress when needs are not being met.
5. Modify the environment: assess the environment to assure safe mobility, and promote way finding and orientation through cues.
6. Provide ongoing assistance to the caregiver: assess the need for education and support.

These essentials were used as a template for selecting behavioral interventions for the adapted guideline.

APPLICATION OF THEORY AND FRAMEWORK

The theory and framework define the purpose of clinical practice guidelines for behavior management. They also acknowledge the role of nursing art and science in helping patients with behavioral problems, and support the underlying causes of behavior that need to be addressed. In understanding the relationship among stress, environment, and behavior and staying true to nursing's roots of caring, a clinical practice guideline was drafted to provide individualized and appropriate behavioral interventions.

Wiedenbach's nursing theory meshes with the complex issues of behavioral problems and the underlying tenets of this guideline. The theory speaks to the residents whose actions at any given moment are a response to their environment and their interactions with others. This response is especially evident in persons with behavioral problems. One of the purposes of this guideline is to provide interventions that are specific to the individual and have the potential to restore or extend the individual's ability to cope. Wiedenbach's practice model is the basis for assessment and treatment of behavioral problems, because it outlines the need to find the trigger or antecedent, explore the possible causes, and individualize the treatment.

The PLST model speaks to the potential causes of behavior: physical environment, social environment, and modifiable conditions. Assessment of each of these areas is

needed to develop and implement appropriate interventions. Bolt's (2012) essentials of care related to the PLST model can be applied to the types of interventions that were selected for use in the guideline. The first essential, to maximize safe function, is addressed in the interventions that reduce stimuli, anticipate needs, and establish consistent routines. Specific interventions include

- Sensory enhancement,
- Relaxation,
- Music,
- Aromatherapy,
- Structured activity, and
- Pet therapy.

The second essential, to provide unconditional positive regard, is addressed in the interventions related to staff education and training on proper approaches to residents and communication skills. The third essential, to use behavior to gauge activity and stimulation, is addressed in the assessment phase of treatment and reflected in all of the behavioral interventions.

The fourth essential, to teach caregivers to listen to behaviors, is addressed in the staff educations interventions of communication training, approach to residents, and techniques for working with residents with dementia. The fifth essential, to modify the environment, is addressed in the environmental interventions:

- Light therapy
- Monitoring systems
- The creation of a home-like environment

The sixth essential, to provide ongoing assistance to the caregiver, is the process of evaluation to determine which interventions are working, which are not, and where further training and education is needed.

The theory and framework were the initial starting points for the development of this guideline. A review for consistency was performed when the interventions were selected, revised, and accepted. A final analysis was performed at the completion of the guideline.

METHODOLOGY

Needs Assessment

The need for a clinical practice guideline for behavior management was identified by the author at the time of employment with a national psychiatric practice in January 2012. This concern was validated by other nurse practitioner staff in North Carolina and Tennessee during a monthly staff meeting. It was proposed that this author, with the assistance of the clinical team, draft a clinical practice guideline.

Project Design

The methodology for this scholarly project followed the steps of the adaptation process for clinical improvement.[35] These steps are

- To search existing guidelines,
- Assess the guidelines for quality,
- Assess the applicability of the recommendations to the target setting,
- Perform a literature review,
- Adapt the guideline, and
- Implement the adapted guideline.

The first step was to find guidelines that were applicable to residents with dementia in LTC. The AGREE checklist was completed on the selected guidelines, and consensus was reached on which guideline to adapt. The articles gathered were critically analyzed using the PRISMA, CONSORT, and evidence-rating scales. Once again, consensus was reached on which interventions to include in the guideline. The guideline was drafted and reviewed for final acceptance.

Resources

The primary resources were library databases, secondary forms of evidence, and the knowledge and expertise of the clinical team. The project took 6 months to complete, with a total cost of $800 for travel and copying fees. The use of Internet search engines and Skype facilitated the gathering of data and discussions with colleagues.

PROJECT RESULTS

The completion of this scholarly project resulted in an evidence-based guideline for behavior management of LTC residents with dementia. This guideline is applicable for any provider in LTC, but especially for those providing psychiatric consultation. It contains

- Assumptions,
- Definitions,
- Levels of evidence,
- Recognition of behavioral problems,
- Sample documentation,
- Assessment of problems,
- Treatment,
- Specific interventions (eg, sensory enhancement and relaxation, structured activity, social contact, environmental changes, therapies),
- Staff education, and
- Monitoring.

APPLICABILITY TO ADVANCED PRACTICE

Nurse practitioners are playing a pivotal role in the care of LTC residents. The doctor of nursing practice has the additional education and expertise to develop and implement evidence-based clinical practice guidelines for critical issues in this vulnerable population. The number of residents with dementia will increase as the population ages, and the need for best practices for care will increase with that need.

Evidence-based interventions are available for the nonpharmacologic management of dementia-related behavioral problems. However, replication of these studies is needed to continue to support this clinical practice guideline. Dissemination of the guideline and education of providers and staff can be accomplished through the publication of the guideline and presentation at professional conferences. All of these tasks are easily in the purview of advanced practice nursing.

SUMMARY

As the number of persons with dementia continues to grow and the burden on LTC staff to provide safe and quality care increases, evidence-based data must be used to develop individualized plans of care. The nurse practitioner plays a pivotal role in this process through disseminating information, doing research, and assisting staff

in formulating care plans. Although individualizing every plan may be difficult, an evidence-based guideline may make the process easier for the practitioner.

REFERENCES

1. Ballard CG, Gauthier S, Cummings JL, et al. Management of agitation and aggression associated with Alzheimer disease. Nat Rev Neurol 2009;5(5): 245–66.
2. Koppel J, Goldberg TE, Gordon ML, et al. Relationships between behavioral syndromes and cognitive domains in Alzheimer disease: the impact of mood and psychosis. Am J Geriatr Psychiatry 2012;20:994–1000.
3. Desai AK, Grossberg GT. Recognition and management of behavioral disturbances in dementia. Prim Care Companion J Clin Psychiatry 2001;3(3): 93–109.
4. Gauthier S, Cummings J, Ballard C, et al. Management of behavioral problems in Alzheimer's disease. Int Psychogeriatr 2010;22(3):346–72.
5. American Psychiatric Association. Treatment of patients with Alzheimer's disease and other dementias, second edition. Available at: http://psychiatryonline.org/content.aspx?bookid=28&sectionid=1679489. Accessed March 1, 2012.
6. AGS viewpoint: use of pain control decreased agitation by 17%. Ann Longterm Care 2012. Available at: http://americangeriatrics.org. Accessed March 1, 2012.
7. Group Health. Dementia and cognitive impairment: diagnosis and treatment guideline. Available at: www.ghc.org/all-sites/guidelines/dementia.pdf. Accessed November 8, 2013.
8. McGonigal-Kenny ML, Schutte DL. Nonpharmacologic management of agitated behaviors in persons with Alzheimer disease and other chronic dementing conditions. J Gerontol Nurs 2006;32(2):9–14.
9. American Medical Directors Association. Clinical practice guidelines in the long term care setting. Available at: http://www.amda.com/tools/guidelines.cfm. Accessed November 8, 2013.
10. Kong EH, Evans LK, Guevara JP. Nonpharmacological intervention for agitation in dementia: a systematic review and meta-analysis. Aging Ment Health 2009;13(4): 512–20.
11. Seitz DP, Brisbin S, Herrmann N, et al. Efficacy and feasibility of nonpharmacological interventions for neuropsychiatric symptoms of dementia in long term care: a systematic review. J Am Med Dir Assoc 2012;13(6):503–6.e2.
12. Beck C, Ortigara A, Mercer S, et al. Enabling and empowering certified nursing assistants for quality dementia care. Int J Geriatr Psychiatry 1999;14:197–211.
13. Legg TJ, Adelman DS. Diagnosis: dementia. Psychiatric referral versus federal regulations: a balancing act for long-term care nurses. J Gerontol Nurs 2011; 37(11):24–7.
14. Center for Medicare and Medicaid Services. Federal regulations for long-term care facilities, title 42. 2012. Available at: http://www.cms.gov. Accessed May 1, 2012.
15. Food and Drug Administration. Black box warnings. 2012. Available at: http://www.fda.gov. Accessed May 1, 2012.
16. Stefanacci R. Evidence-based treatment of behavioral problems in patients with dementia. Ann Longterm Care 2008;16(4):33–5.
17. Lovheim H, Sandman PO, Karlsson S, et al. Sex differences in the prevalence of behavioral and psychological symptoms of dementia. Int Psychogeriatr 2009; 21(3):469–75.

18. Ballard CG, Corbett A, Chitramohan R, et al. Management of agitation and aggression associated with Alzheimer's disease: controversies and possible solutions. Curr Opin Psychiatry 2009;22:532–40.
19. Kaldy J. Solving the mystery by doing old-fashioned detective work. Provider 2012;38(7):25–37.
20. Kapusta P, Regier L, Bareham J, et al. Behaviour management in dementia. Can Fam Physician 2011;57:1420–2.
21. Koopmans RT, Zuidema SU, Leontjevas R, et al. Comprehensive assessment of depression and behavioral problems in long-term care. Int Psychogeriatr 2010; 22(7):1054–62.
22. Logsdon RG, McCurry SM, Teri L. Evidence-based psychological treatments for disruptive behaviors in individuals with dementia. Psychol Aging 2007;22(1): 28–36.
23. Lyketos CG, Carrillo MC, Ryan JM, et al. Neuropsychiatric symptoms in Alzheimer's disease. Alzheimers Dement 2011;7:532–9.
24. Williamson JE. Antipsyched out? McKnights. 2012. Available at: http://www.mcknights.com. Accessed May 1, 2012.
25. Cohen-Mansfield J. Agitated behavior in persons with dementia: the relationship between type of behavior, its frequency, and its disruptiveness. J Psychiatr Res 2008;43:64–9.
26. Zeller A, Hahn S, Needham I, et al. Aggressive behavior of nursing home residents toward caregivers: a systematic literature review. Geriatr Nurs 2009; 30(3):174–87.
27. Warchol K. Dementia care model facilitates quality outcomes. Aging Well 2012;5(2): 32. Available at: http://www.todaysgeriatricmedicine.com/archive/031912p32.shtml. Accessed November 8, 2013.
28. AGREE Trust (2012). Available at: http://www.agreetrust.org. Accessed March 1, 2012.
29. Liberati A, Altman DG, Tetzlaff J. The PRISMA statement for reporting systematic reviews and meta-analyses of studies that evaluate health care interventions: explanation and elaboration. Ann Intern Med 2009;151(4):W65–94.
30. Moher D, Hopewell S, Schulz KF. CONSORT 2010 explanation and elaboration: updated guidelines for reporting parallel group randomised trials. BMJ 2010; 340:c869.
31. Wiedenbach E. The helping art of clinical nursing. Current Nursing Web site. Available at: http://www.currentnursing.com/nursing_theory/Ernestine_Wiedenbach.html. Accessed March 1, 2012.
32. Hall GR, Buckwalter KC. Progressively lowered stress threshold: a conceptual model for care of adults with Alzheimer's disease. Arch Psychiatr Nurs 1987; 1(6):399–406.
33. James IA. Understanding behaviour in dementia that challenges: a guide to assessment and treatment. Philadelphia: Jessica Kingsley Publishers; 2011.
34. Boltz M, Capezuti E, Fulmer T, et al. Evidence-based geriatric nursing protocols for best practice. 4th edition. New York: Springer Publishing Company; 2012.
35. Fervers B, Burgers JS, Haugh MC, et al. Adaptation of clinical guidelines: literature review and proposition for a framework and procedure. Int J Qual Health Care 2006;18(3):167–76.