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Our Mission: Helping to prepare Iowa’s health practitioners to care for our growing population of elders. E-NEWS is one of our methods of teaching through technology.

Each month, E-NEWS delivers abstracts from current multidisciplinary healthcare journal articles related to a specific geriatric topic. This month’s E-NEWS focuses on Evaluation and Non-Drug Management of Neuropsychiatric Symptoms in Dementia.

Evaluation and Non-Drug Management of Neuropsychiatric Symptoms in Dementia

In this issue of the E-NEWS, you will find abstracts for:

- A study that evaluates a need-based intervention to reduce verbal agitation in people with dementia.
- An article that reviews a nonpharmacologic intervention concept in managing pain to prevent aggression in people with dementia.
- A study that examines the effectiveness of community-based nonpharmacological interventions delivered by family caregivers for neuropsychiatric symptoms of dementia.
- A study that seeks to determine the efficacy of nonpharmacologic individualized interventions in decreasing agitation in advanced dementia.
- An article that describes nonpharmacologic management of behavioral symptoms in dementia.
- An article that presents evidence-based interventions for older people with dementia and agitated behavior.
- A study that explores the effectiveness of a group music intervention against agitated behavior in older adults with dementia.
- An article that provides a case report addressing the effects of animal-assisted therapy on behavioral and psychological symptoms in dementia.
- A review that summarizes current findings of the efficacy of exercise on behavioral and psychological symptoms of dementia.

OBJECTIVES: Positive results have been reported with psychosocial interventions used to reduce verbal agitation (VA) in people with dementia, but there is no clear information regarding the proportion of persons who demonstrate significant behavioral improvement with such treatments. The main objectives of this pilot study are (a) to identify the proportion of persons with dementia who demonstrate significant behavioral improvement with a need-based intervention to reduce VA and (b) to further evaluate the effectiveness of this type of intervention. METHOD: A single-group repeated measures design was used (N = 26). An individualized multicomponent intervention addressing needs for comfort, social interaction and sensory stimulation was applied by a therapist during 30 min sessions during the time of day when VA was most severe. The frequency and duration of VA were measured through computer-assisted direct observation several times before, during and after the intervention. RESULTS: A statistically significant reduction of the duration of VA during the intervention phase relative to other phases of the protocol was found. This effect was limited to the period during which the treatment is being applied. Half of the participants (54%) demonstrated considerable behavioral improvement during the intervention (50% reduction of symptoms) and those whose functioning is best preserved showed the best response to the intervention. CONCLUSION: This need-based intervention appears promising for improving the behavior of a considerable proportion of patients.


Aggression is a common form of behavioral disturbance in dementia. Strategies to prevent and treat aggressive behavior are underdeveloped. However, recent work points to several modifiable risk factors that may be targets for intervention. Pain management is an evidence-based, feasible, but potentially underused, strategy that may be incorporated with other behavioral interventions to prevent aggression. In this article, we review areas of overlap in interventions for pain and for behavioral disturbances and describe an intervention concept that may hold promise for older adults with dementia who are at risk of developing aggressive behavior.


OBJECTIVE: Behavioral and psychological symptoms are common in dementia, and they are especially stressful for family caregivers. Nonpharmacological (or psychosocial) interventions have been shown to be effective in managing behavioral and psychological symptoms, but mainly in institutional settings. The authors reviewed the effectiveness of community-based nonpharmacological interventions delivered through family caregivers. METHOD: Of 1,665 articles identified in a literature search, 23 included unique randomized or pseudorandomized nonpharmacological interventions with family caregivers and outcomes related to the frequency or severity of behavioral and psychological symptoms of dementia, caregiver reactions to these symptoms, or caregiver distress attributed to these symptoms. Studies were rated according to an evidence hierarchy for intervention research. RESULTS: Nonpharmacological interventions were effective in reducing behavioral and psychological symptoms, with an overall effect size of 0.34 (95% CI=0.20-0.48; z=4.87; p<0.01), as well as in ameliorating caregiver reactions to these behaviors, with an overall effect size of 0.15 (95% CI=0.04-0.26; z=2.76; p=0.006). CONCLUSIONS: Nonpharmacological interventions delivered by family caregivers have the potential to reduce the frequency and severity of behavioral and psychological symptoms of dementia, with effect sizes at least equaling those of pharmacotherapy, as well as to reduce caregivers’ adverse reactions. The successful interventions identified included approximately nine to 12 sessions tailored to the needs of the person with dementia and the caregiver and were delivered individually in the home using multiple components over 3-6 months with periodic follow-up.

BACKGROUND: A randomized, placebo-controlled clinical trial was undertaken to determine the efficacy of nonpharmacologic individualized interventions (individualized to address unmet needs such as boredom or pain) in decreasing agitation in persons with dementia. METHOD: Agitated nursing home residents with advanced dementia (from 9 nursing homes in 5 locations in Maryland, United States) were randomized into an intervention group (n = 89) and a placebo control group (n = 36). On the basis of data from baseline assessment, a systematic methodology for individualizing nonpharmacologic interventions, Treatment Routes for Exploring Agitation (TREA), was used with the intervention group: an unmet need was hypothesized, a corresponding treatment category was identified, and specifics of the treatment were chosen to fit the person's need, past identity, preferences, and abilities. (Unmet needs were hypothesized based on physician evaluations, structured staff interviews, relative questionnaires, direct observations of agitation with the Agitation Behavior Mapping Instrument [the primary outcome measure] and affect with Lawton's Modified Behavior Stream [the secondary outcome measure], and resident assessments.) TREA interventions were implemented for 2 weeks, and observations of agitation and affect were recorded. The study was conducted from June 2006 until December 2011. RESULTS: Relative to a control group, TREA interventions for unmet needs produced statistically significant declines in total (P < .001), physical nonaggressive (P < .001), and verbal agitation (P = .004) and significant increases in pleasure (P < .001) and interest (P < .05).

CONCLUSIONS: This is the first large randomized controlled trial to demonstrate the efficacy of TREA and one of only a few such trials of nonpharmacologic interventions for agitation in persons with dementia. The translation of these findings into practice is sorely needed and would require structural changes dedicating staff time to observing each agitated resident, determining unmet needs, obtaining appropriate intervention materials, conducting the individualized nonpharmacologic interventions, and evaluating results. © Copyright 2012 Physicians Postgraduate Press, Inc.


Behavioral symptoms such as repetitive speech, wandering, and sleep disturbances are a core clinical feature of Alzheimer disease and related dementias. If untreated, these behaviors can accelerate disease progression, worsen functional decline and quality of life, cause significant caregiver distress, and result in earlier nursing home placement. Systematic screening for behavioral symptoms in dementia is an important prevention strategy that facilitates early treatment of behavioral symptoms by identifying underlying causes and tailoring a treatment plan. First-line nonpharmacologic treatments are recommended because available pharmacologic treatments are only modestly effective, have notable risks, and do not effectively treat some of the behaviors that family members and caregivers find most distressing. Examples of nonpharmacologic treatments include provision of caregiver education and support, training in problem solving, and targeted therapy directed at the underlying causes for specific behaviors (e.g., implementing nighttime routines to address sleep disturbances). Based on an actual case, we characterize common behavioral symptoms and describe a strategy for selecting evidence-based nonpharmacologic dementia treatments. Nonpharmacologic management of behavioral symptoms in dementia can significantly improve quality of life and patient-caregiver satisfaction.


Older people diagnosed with dementia can have complex needs, especially when they exhibit agitated behavior. Patients with agitated behavior challenge the delivery of health care. Often the behavior is a symptom of unmet needs in this population (Dewing 2010). It is important for nurses to understand the underlying causes and apply evidence-based interventions in their nursing practice to promote health, safety and the highest quality of life possible. This article defines and classifies agitated behaviors, discusses implications for their management and then presents evidence-based interventions nurses can use. The interventions are categorized according to each of the five senses.

OBJECTIVES: This study explored the effectiveness of group music intervention against agitated behavior in elderly persons with dementia. METHODS: This was an experimental study using repeated measurements. Subjects were elderly persons who suffered from dementia and resided in nursing facilities. In total, 104 participants were recruited by permuted block randomization and of the 100 subjects who completed this study, 49 were in the experimental group and 51 were in the control group. The experimental group received a total of twelve 30-min group music intervention sessions, conducted twice a week for six consecutive weeks, while the control group participated in normal daily activities. In order to measure the effectiveness of the therapeutic sessions, assessments were conducted before the intervention, at the 6th and 12th group sessions, and at 1 month after cessation of the intervention. Longitudinal effects were analyzed by means of generalized estimating equations (GEEs). RESULTS: After the group music therapy intervention, the experimental group showed better performance at the 6th and 12th sessions, and at 1 month after cessation of the intervention based on reductions in agitated behavior in general, physically non-aggressive behavior, verbally non-aggressive behavior, and physically aggressive behavior, while a reduction in verbally aggressive behavior was shown only at the 6th session. CONCLUSIONS: Group music intervention alleviated agitated behavior in elderly persons with dementia. We suggest that nursing facilities for demented elderly persons incorporate group music intervention in routine activities in order to enhance emotional relaxation, create interpersonal interactions, and reduce future agitated behaviors. Copyright © 2010 John Wiley & Sons, Ltd.


Background: Recently, interest in nonpharmaceutical interventions in dementia care has increased. Animal-assisted therapy has been shown to be one promising intervention but more knowledge is needed. The present article reports on a pilot study involving an 84-year-old woman with vascular dementia who was systematically trained with a therapy dog team for 8 weeks. Methods: A quasi-experimental longitudinal interventional design with pre-post measures was used. Data were collected on 3 occasions. Descriptive statistics were used for data analysis. Results: Some effects on the woman's ability to walk and move were identified. In addition, some effects in the woman's cognitive state were observed. Conclusions: Physical, psychological, and/or social training with certified therapy dog teams can have effects on behavioral and psychological symptoms in people living with dementia. Further research is needed.


BACKGROUND: Behavioral and psychological symptoms of dementia (BPSD) are common and are core symptoms of the condition. They cause considerable distress to the person with dementia and their carers and predict early institutionalization and death. Historically, these symptoms have been managed with anxiolytic and antipsychotic medication. Although potentially effective, such medication has been used too widely and is associated with serious adverse side-effects and increased mortality. Consequently, there is a need to evaluate non-pharmacological therapies for behavioral and psychological symptoms in this population. One such therapy is physical activity, which has widespread health benefits. The aim of this review is to summarize the current findings of the efficacy of physical activity on BPSD. METHOD: Published articles were identified using electronic and manual searches. Rather than systematically aggregating data, this review adopted a rapid critical interpretive approach to synthesize the literature. RESULTS: Exercise appears to be beneficial in reducing some BPSD, especially depressed mood, agitation, and wandering, and may also improve night-time sleep. Evidence of the efficacy of exercise on improving other symptoms such as anxiety, apathy, and repetitive behaviors is currently weak or lacking. CONCLUSION: The beneficial effect of exercise type, its duration, and frequency is unclear although some studies suggest that walking for at least 30 minutes, several times a week, may enhance outcome. The methodological shortcomings of current work in this area are substantial. The research and clinical implications of current findings are discussed.
Next Month’s Issue:
Pharmacologic Management of Neuropsychiatric Symptoms in Dementia

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