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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 NONPHARMACOLOGIC APPROACHES TO THE MANAGEMENT OF BEHAVIOR IN PEOPLE WITH DEMENTIA.

NONPHARMACOLOGIC APPROACHES TO THE MANAGEMENT OF BEHAVIOR IN PEOPLE WITH DEMENTIA

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

- An article that reviews the research on the effectiveness of community-based, nonpharmacologic interventions for older adults with early-stage dementia.
 - A study that assesses the effects of bright light therapy on agitation in dementia.
 - A study that examines the efficacy of systematic, individualized, nonpharmacologic interventions in reducing agitated behaviors in nursing home residents with dementia.
 - An article that describes the use of the Tailored Activity Program to reduce behavioral symptoms in persons with dementia.
 - A study that evaluates the use of massage for reducing agitation in cognitively impaired nursing home residents.
 - An article that discusses the evaluation and management of neuropsychiatric symptoms of dementia.
 - An article that analyzes studies of psychosocial treatments of behavior symptoms in dementia.
 - A study that investigates the efficacy of music therapy in the treatment of behavioral and psychiatric symptoms of dementia.
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- Burgener SC, Buettner LL, Beattie E, Rose KM. Effectiveness of community-based, nonpharmacological interventions for early-stage dementia: conclusions and recommendations. *J Gerontol Nurs.* 2009 Mar;35(3):50-7; quiz 58-9.

In 2007, a comprehensive review of the extant research on nonpharmacological interventions for persons with early-stage dementia was conducted. More than 150 research reports, centered on six major domains, were included: early-stage support groups, cognitive training and enhancement programs, exercise programs, exemplar programs, health promotion programs, and "other" programs not fitting into previous categories. Theories of neural regeneration and plasticity were most often used to support the tested interventions. Recommendations for practice, research, and health policy are outlined, including evidence-based, nonpharmacological treatment protocols for persons with mild cognitive impairment and early-stage dementia. A tested, community-based, multimodal treatment program is also described. Overall, findings identify well-supported nonpharmacological treatments for persons with early-stage dementia and implications for a national health care agenda to optimize outcomes for this growing population of older adults.



- Burns A, Allen H, Tomenson B, Duignan D, Byrne J. Bright light therapy for agitation in dementia: a randomized controlled trial. *Int Psychogeriatr.* 2009 Mar 27:1-11.

Background: Agitation is common in people with dementia, is distressing to patients and stressful to their carers. Drugs used to treat the condition have the potential to cause particularly severe side effects in older people with dementia and have been associated with an increased death rate. Alternatives to drug treatment for agitation should be sought. The study aimed to assess the effects of bright light therapy on agitation and sleep in people with dementia. Methods: A single center randomized controlled trial of bright light therapy versus standard light was carried out. The study was completed prior to the mandatory registration of randomized controls on the clinical trials registry database and, owing to delays in writing up, retrospective registration was not completed. Results: There was limited evidence of reduction in agitation in people on active treatment, sleep was improved and a suggestion of greater efficacy in the winter months. Conclusions: Bright light therapy is a potential alternative to drug treatment in people with dementia who are agitated.



- Cohen-Mansfield J, Libin A, Marx MS. Nonpharmacological treatment of agitation: a controlled trial of systematic individualized intervention. *J Gerontol A Biol Sci Med Sci.* 2007 Aug;62(8):908-16.

OBJECTIVE: The objective of this study was to examine the efficacy of a systematic algorithm for providing individualized, nonpharmacological interventions for reducing agitated behaviors in nursing home residents with dementia. METHODS: This placebo-controlled study combined nomothetic and ideographic methodologies. The study was conducted in 12 nursing home buildings in Maryland; 6 were used as treatment facilities, and 6 as control facilities. Participants were 167 elderly nursing home residents with dementia. Interventions were tailored to the individual profiles of agitated participants using a systematic algorithm that considered type of agitation and unmet needs. Interventions were then designed to fulfill the need in a manner that matched the person's cognitive, physical, and sensory abilities, and their lifelong habits and roles. Interventions were provided for 10 days during the 4 hours of greatest agitation. Direct observations of agitation were recorded by trained research assistants via the Agitated Behavior Mapping Instrument (ABMI). Evaluation of positive and negative affect was also based on direct observation and assessed via Lawton's Modified Behavior Stream. Data analysis was performed via SPSS software. RESULTS: The implementation of personalized, nonpharmacological interventions resulted in statistically significant decreases in overall agitation in the intervention group relative to the control group from baseline to treatment ($F(1,164) = 10.22, p = .002$). In addition, implementation of individualized interventions for agitation resulted in statistically significant increases in pleasure and interest ($F(1,164) = 24.22, p < .001$; $F(1,164) = 20.66, p < .001$). CONCLUSIONS: The findings support the use of individualized nonpharmacological interventions to treat agitation in persons with dementia and underscore the importance for clinicians of searching for underlying reasons for agitated behaviors.



- Gitlin LN, Winter L, Vause Earland T, Adel Herge E, Chernett NL, Piersol CV, Burke JP. The Tailored Activity Program to reduce behavioral symptoms in individuals with dementia: feasibility, acceptability, and replication potential. *Gerontologist*. 2009 Jun;49(3):428-39.

PURPOSE: The Tailored Activity Program (TAP) is a home-based occupational therapy intervention shown to reduce behavioral symptoms and caregiver burden in a randomized trial. This article describes TAP, its assessments, acceptability, and replication potential. DESIGN AND METHODS: TAP involves 8 sessions for a period of 4 months. Interventionists identify preserved capabilities, previous roles, habits, and interests of individuals with dementia; develop activities customized to individual profiles; and train families in activity use. Interventionists documented time spent and ease conducting assessments, and observed receptivity of TAP. For each implemented prescribed activity, caregivers reported the amount of time their relative spent in activity and perceived benefits. RESULTS: The TAP assessment, a combination of neuropsychological tests, standardized performance-based observations, and clinical interviewing, yielded information on capabilities from which to identify and tailor activities. Assessments were easy to administer, taking an average of two 1-hr sessions. Of 170 prescribed activities, 81.5% were used, for an average of 4 times for 23 min by families between treatment sessions for a period of months. Caregivers reported high confidence in using activities, being less upset with behavioral symptoms (86%), and enhanced skills (93%) and personal control (95%). Interventionists observed enhanced engagement (100%) and pleasure (98%) in individuals with dementia during sessions. IMPLICATIONS: TAP offers families knowledge of their relative's capabilities and easy-to-use activities. The program was well received by caregivers. Prescribed activities appeared to be pleasurable and engaging to individuals with dementia. TAP merits further evaluation to establish efficacy with larger more diverse populations and consideration as a nonpharmacological approach to manage behavioral symptoms.

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- Holliday-Welsh DM, Gessert CE, Renier CM. Massage in the management of agitation in nursing home residents with cognitive impairment. *Geriatr Nurs*. 2009 Mar-Apr;30(2):108-17.

This was a prospective study designed to examine the potential of massage to reduce agitation in cognitively impaired nursing home residents. Subjects were identified as susceptible to agitation by nursing home staff or by Minimum Data Set (MDS) report. Data was collected during baseline (3 days), intervention (6 days), and at follow-up. Five aspects of agitation were assessed: Wandering, Verbally Agitated/Abusive, Physically Agitated/Abusive, Socially Inappropriate/Disruptive, and Resists Care. At each observation, agitation was scored 5 times during the 1-hour window of observation. Subjects' agitation was lower during the massage intervention than at baseline (2.05 vs. 1.22, $P < .001$), and remained lower at follow-up. Of the 5 agitated behaviors examined in this study, massage was associated with significant improvement for 4: Wandering (0.38 vs. 0.16, $P < .001$), Verbally Agitated/Abusive (0.59 vs. 0.49, $P = .002$), Physically Agitated/Abusive (0.82 vs. 0.40, $P < .001$), and Resists Care (0.10 vs. 0.09, $P = .022$). When analysis was restricted to residents with significant levels of agitation at baseline, the observed effects of massage on agitation increased. Massage is an accessible, easily learned intervention that is effective in controlling some types of agitation in elders with cognitive impairment. Massage should be studied further as a nonpharmacological intervention in such patients.

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- Kalapatapu RK, Neugroschl JA. Update on neuropsychiatric symptoms of dementia: evaluation and management. *Geriatrics*. 2009 Apr;64(4):20-6.

The neuropsychiatric symptoms of dementia can lead to a decreased quality of life, rapid cognitive decline, early patient institutionalization, tremendous caregiver burden, and increased cost of care. A thorough assessment to evaluate and treat any underlying causes of symptoms is essential. With the lack of an approved drug to treat the neuropsychiatric symptoms of dementia, nonpharmacologic interventions take on added importance. Behavioral management, cognitive stimulation therapy, and caregiver and health care staff education have shown the most promise to reduce symptom burden over the long term. The antipsychotic drugs have been the traditional choice of medications to treat the neuropsychiatric symptoms of dementia, but safety problems emerged with their use, leading to the issuance of label changes ("black box" warnings) by the Food and Drug Administration. Aside from antipsychotic drugs, multiple classes of medications have been tried to treat such symptoms but long-term data showing efficacy and safety are often lacking.

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- O'Connor DW, Ames D, Gardner B, King M. Psychosocial treatments of behavior symptoms in dementia: a systematic review of reports meeting quality standards. *Int Psychogeriatr*. 2009 Apr;21(2):225-40.

OBJECTIVE: To provide a systematic review of selected experimental studies of psychosocial treatments of behavioral disturbances in dementia. Psychosocial treatments are defined here as strategies derived from one of three psychologically oriented paradigms (learning theory, unmet needs and altered stress thresholds). METHOD: English language reports published or in press by December 2006 were identified by means of database searches, checks of previous reviews and contact with recognized experts. Papers were appraised with respect to study design, participants' characteristics and reporting details. Because people with dementia often respond positively to personal contact, studies were included only if control conditions entailed similar levels of social attention or if one treatment was compared with another. RESULTS: Only 25 of 118 relevant studies met every specification. Treatment proved more effective than an attention control condition in reducing behavioral symptoms in only 11 of the 25 studies. Effect sizes were mostly small or moderate. Treatments with moderate or large effect sizes included aromatherapy, ability-focused carer education, bed baths, preferred music and muscle relaxation training. CONCLUSIONS: Some psychosocial interventions appear to have specific therapeutic properties, over and above those due to the benefits of participating in a clinical trial. Their effects were mostly small to moderate with a short duration of action. This limited action means that treatments will work best in specific, time-limited situations. In the few studies that addressed within-group differences, there were marked variations in response. Some participants benefited greatly from a treatment, while others did not. Interventions proved more effective when tailored to individuals' preferences.

- Raglio A, Bellelli G, Traficante D, Gianotti M, Ubezio MC, Villani D, Trabucchi M. Efficacy of music therapy in the treatment of behavioral and psychiatric symptoms of dementia. *Alzheimer Dis Assoc Disord*. 2008 Apr-Jun;22(2):158-62.

BACKGROUND: Music therapy (MT) has been proposed as valid approach for behavioral and psychologic symptoms (BPSD) of dementia. However, studies demonstrating the effectiveness of this approach are lacking. OBJECTIVE: To assess MT effectiveness in reducing BPSD in subjects with dementia. METHOD: Fifty-nine persons with dementia were enrolled in this study. All of them underwent a multidimensional assessment including Mini Mental State Examination, Barthel Index and Neuropsychiatry Inventory at enrollment and after 8, 16, and 20 weeks. Subjects were randomly assigned to experimental (n=30) or control (n=29) group. The MT sessions were evaluated with standardized criteria. The experimental group received 30 MT sessions (16 wk of treatment), whereas the control group received educational support or entertainment activities. RESULTS: NPI total score significantly decreased in the experimental group at 8th, 16th, and 20th weeks (interaction time x group: $F_{3,165}=5.06$, $P=0.002$). Specific BPSD (i.e., delusions, agitation, anxiety, apathy, irritability, aberrant motor activity, and night-time disturbances) significantly improved. The empathetic relationship and the patients' active participation in the MT approach, also improved in the experimental group. CONCLUSIONS: The study shows that MT is effective to reduce BPSD in patients with moderate-severe dementia.



Next Month's Issue:

Optimizing Mobility in Older Adults with Knee Osteoarthritis



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