The Systematic Research Overview Pilot Project, under the auspices of the Alberta Heritage Foundation for Medical Research (AHFMR) Dissemination Program, was initiated early in 1997. The objective of the pilot project was to synthesize and assess research findings that address a question of concern to members of the Alberta Association of Registered Nurses. The selected research question was “What strategies are effective in managing the difficult behaviors associated with dementia of the Alzheimer type in elderly individuals?”

Characteristics of the Relevant Articles
The search strategies resulted in 265 articles. Forty-five of the articles met all of the established relevance criteria. The interventions examined in the studies include: music, which was the most frequent intervention, followed by skill training and visual barriers. The remaining interventions were exercise, pet therapy, sensory integration, bright light therapy, reality orientation, presence, life review, hand massage, therapeutic touch, and white noise. The most commonly addressed behaviors that pertained to the purpose of this overview were: social interaction, wandering, agitation, self-care activity, physically violent behavior, vocally disruptive behavior, day/night disturbances, and eating problems. For the purpose of this article, only aggressive, agitated and disruptive behaviors are examined.

Aggressive, Agitated, and Disruptive Behaviors
One of the most difficult behaviors to manage is aggressive, agitated, and disruptive behaviors. Staff, with already heavy workloads, must deal not only with the agitated resident but also attempt to calm other residents disturbed by the noise and activity. In managing these behaviors, several strategies showed promise.

A planned walking program was conducted immediately after the evening meal, three times a week. Two to three volunteers walked with eleven participants through public areas for 1.5 hours. The walking program was effective in reducing the number of aggressive events by 30% on a dementia special care unit.1

Simulated presence therapy is based on the belief that the primary and most central source of stability for an individual with AD is often an informal caregiver, usually a family member. A personalized audiotape composed of a family member’s telephone conversation of cherished memories was played for 27 residents when they displayed a problem behavior. The nursing staff recorded whether the resident’s behavior improved, remained unchanged, or worsened in response to the simulated presence therapy. Positive responses were demonstrated by 81% of the subjects. Among the behavior problems noted, simulated presence therapy appears most effective in treating social isolation (84%) and agitation (78%).2

Another advantage of simulated presence therapy is that important aspects of the residents’ past become apparent to the staff. For example, information about residents’ hobbies, interests, and family members may be revealed on the audiotape which provides insight into the residents’ personalities.

Exposure to bright light treatment was examined in relation to reducing agitation in six moderately and severely demented elderly residents of a nursing home.3 A light box was placed approximately one metre away from the resident at a height within the resident’s visual field between 9:30 a.m. and 11:30 a.m. for two 10-day periods. Agitated behavior was rated once every 15 minutes between 4:00 p.m. and 8:00 p.m. Less agitation was observed on treatment days. It is interesting to note that higher initial agitation resulted in lower agitated behavior with exposure to light. However, all but one resident’s agitated behavior had returned within two days following the treatment.
Twenty agitated long-term care facility (LTCF) residents were exposed to 15 minutes of classical, calming music on two occasions, one week apart. The residents were assessed for level of agitation for 15 minutes before, 15 minutes during, and 15 minutes after the musical intervention. There was a reduction in agitated behavior both during and after the musical was played.4

In another similar study, classical and favorite music was found to decrease the number of repetitive disruptive talking in two of three LTCF residents with AD. The third resident showed little decrease in agitated behavior, which may be related to the individual not finding classical music relaxing.5

Another study examined ways of dealing with the repetitive questions or statements of some elderly individuals with AD. This was the only study included in the overview that measured the effectiveness of an intervention in the home. There is a great need for further research in this area as informal caregivers are desperate for interventions that lessen their stress in managing their loved ones at home. Seven caregivers who received a behavior management intervention were compared with another group of seven caregivers. Caregivers in the intervention group were instructed to implement a written cueing system. The cues consisted of answers to repetitive questions or statements in simple phrases printed on index cards. The findings revealed that informal caregivers’ use of written cues was effective in decreasing repetitive talking.6

Limitations
Because of the lack of a randomized design in many of the studies, the effect of attention could not be controlled. Consequently, the positive effect reported in many of the studies may be caused, in part, due to the attention that the subjects received by engaging in the activities. The findings of this overview must be considered in light of the methodological limitations that were found in all of the studies included.

Implications for Practice
Although the studies varied in their strength of research design, all of the reported strategies are felt to be worth trying as the overview has revealed the best available scientific evidence for managing the behavioral symptoms of individuals with AD. The strategies are clinically safe and most can be easily implemented in a wide variety of settings: acute care, long-term care, adult day care, and home care. Although the interventions were occasionally implemented by the researcher or by individuals with specialized training, most caregivers could use these strategies when caring for individuals with AD.

Implications for Research
Replication of studies with individuals who are diagnosed with a variety of dementias and with different levels of cognitive impairment are recommended to determine which strategies are appropriate for the various dementias and levels of impairment. Longitudinal studies are needed to assess the effectiveness over periods of time in preventing or delaying the progression of the disease and in reducing caregiver stress. The cost-effectiveness of implementing the interventions requires further study and would be of particular interest to policy makers and administrators.

References

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For more information on Alzheimer disease, please call your local Alzheimer Society, look on the Internet at www.alzheimer.ca or call 1-800-616-8816.