Disruptive Behaviors in Dementia: Promoting Nonpharmacologic Intervention Through Staff Education

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Responding to frustration with these challenging behaviors expressed by staff members at a VA long-term care facility, these investigators sought to determine whether a brief educational intervention could help staff change their practice for the better.

In 2004, as part of a national campaign to transform the culture of VA long-term care (LTC),[1] the VA Tennessee Valley Healthcare System (VATVHS) conducted nursing educational initiatives to improve communication between staff and patients in its 245-bed LTC facility, located at the Murfreesboro campus. These initiatives revealed concerns among LTC staff about disruptive behavior in patients with dementia. Staff expressed frustration with the lack of recognition of the problem among physician staff and the need for assistance in managing these behaviors.

That the nursing staff was particularly troubled by disruptive behaviors in patients with dementia is not surprising. Such behaviors—which include verbal or physical aggression, agitation, wandering, and resistance or nonadherence to care—are common in patients with dementia and frequently present a challenge to caregivers and health care providers alike. These behaviors cause considerable morbidity, may place patients or others around them in danger, and often are a reason that patients enter a LTC setting.[2]

While behavioral symptoms of dementia may respond better than cognitive symptoms to pharmacotherapy,[2] there is a general consensus that the initial response to these behaviors should, in most cases, consist of nonpharmacologic interventions.[2–7] Examples of nonpharmacologic interventions for behavioral disturbances in dementia include reassurance, distraction, environmental changes, structured or unstructured activities, exercise, music therapy, bright light therapy, and behavioral therapy.[2] A major reason for trying such interventions first is the avoidance of potential adverse reactions and drug interactions that could result from the use of pharmacologic agents, especially in older patients already taking multiple medications. Antipsychotic medications, for instance, are associated with increased mortality in elderly patients.[8,9] Yet these medications are prescribed to more than 25% of patients in LTC facilities.[10]

In response to the concerns expressed by LTC nursing staff, the VATVHS developed a clinical demonstration project to investigate whether an in-service educational program could help LTC staff improve their ability to manage disruptive patient behaviors effectively. An educational intervention was designed with the goals of increasing staff awareness and knowledge of nonpharmacologic interventions for managing disruptive behaviors, improving communication between patients and staff about these behaviors, providing staff with additional tools for managing these behaviors, and ensuring that their efforts in this endeavor are recognized. As part of the project, a study was conducted to identify specific practice changes staff planned to implement as a result of the educational intervention, to determine the extent to which staff were successful in implementing their intended changes, and to discover the nature of any barriers to this implementation. In this article, we describe the educational intervention and discuss the findings of our study of its effectiveness.

DEVELOPING THE EDUCATIONAL PROGRAM

Originally, the in-service educational program was designed as a one-hour program that provided in-depth information on the antecedent-behavior-consequence (ABC) approach to managing disruptive behaviors.[11] Pilot testing with several staff members from the dementia unit of the LTC facility, however, revealed that

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one hour might be too much time for participants to set aside, given their workload and patient care demands. Additionally, participants in the pilot testing said they did not find the program relevant and suggested that it focus more on providing solutions and less on providing information.

Based on this feedback, we shortened the program length to approximately 20 minutes and modified the content to encourage more active participation from program attendees and to emphasize ways in which staff could act immediately to use the information provided. The modified program focused on providing a basic knowledge of behavior management—in particular, the concepts of antecedents and consequences of disruptive behaviors. It instructed staff in identifying the stages of dementia and provided reasons why patients might be acting in an agitated or disruptive manner. Two points of particular emphasis were: (1) that most behavioral disturbances are provoked through interactions with caregivers and (2) that, because patients with dementia have a very limited ability to change their behaviors, change must instead come from their caregivers.

The program described behavioral strategies (such as distraction, redirection, and cueing) and environmental changes (such as music, bright lights, activities, and exercise) that participants could employ to reduce or prevent agitation in patients with dementia. Participants were encouraged to discuss actual cases from their experience, so that the program's points could be illustrated with real-life scenarios. Ultimately, the program strove to promote a constructive and supportive environment and to encourage participants to develop personalized strategies for implementing changes in their practice.

STUDY DESIGN

Participants

The target audience for the in-service educational program was the 169 registered nurses, licensed practical nurses, nursing assistants, social workers, and nurse managers working at the LTC facility of the VATVHS. Between September 2005 and March 2006, a geriatrician, a psychologist, and an advanced practice nurse presented the modified program, in nine 20-minute sessions, to all six units—two skilled care units, one rehabilitation unit, one dementia unit, one hospice and palliative care unit, and one psychiatry unit—of the VATVHS LTC facility.

Program evaluation

In order to gauge participants' level of satisfaction with the in-service program and track any practice changes they intended to make based on what they learned, we designed a satisfaction questionnaire and commitment to change evaluation.[12,13] Upon program completion, a survey was distributed to all participants containing both the satisfaction questionnaire and a response form on which they were asked to identify up to five changes they intended to make over the next three months, due, at least in part, to the program.

The satisfaction questionnaire solicited participants' opinions on each unit of instruction, the extent to which the program objectives were achieved, the program's usefulness to patient care, the quality of the learning experience, and suggestions on program content. Questionnaire items used a three-point Likert scale, in which a score of 1 was defined as "poor," 2 was defined as "average," and 3 was defined as "excellent."

Three months later, we mailed the participants their original, completed response forms and a follow-up survey asking for an estimate of the extent to which they actually had implemented their intended changes. The follow-up survey asked participants to determine an implementation percentage ranging from 0% to 100%, with 0% meaning no progress and 100% meaning full implementation or fulfillment, for each of their intended changes. It also asked them to identify any obstacles to the full implementation of each intended change. The anonymous forms were coded so that those who did not respond could be contacted again.

Patient impact

We also sought to determine whether the program had an impact on patients. We used the Minimum Data Set (MDS), a 24-item quality indicator instrument reported monthly for each patient, to track patients' falls, use of psychotropic medication, and total medication use throughout the study period.

Data analysis

Consistent with the observational nature of this study, participants' responses involving intended practice changes were analyzed with descriptive statistics, including mean values and standard deviation, frequency counts, and proportions. The study was approved by the Vanderbilt University Institutional Review Board, the VATVHS Research and Development Committee, and the VATVHS Nursing Education Service.

OUR FINDINGS

Participation and response rates

Of the 169 LTC staff members eligible to participate in the program, 69 (41%) attended one of the nine sessions presented between September 2005 and March 2006. Of these, 33

Table. Intended practice changes specified by participants at program completion and implementation at three-month follow-up

Type of practice change	No. (%) of participants indicating an intended change (n = 33)[a]	Mean % of implementation (n = 13)[b]
Use patient-centered approach	9 (27%)	89%
Attempt redirection	8 (24%)	75%
Increase listening and compassion	8 (24%)	88%
Attempt unspecified nonpharmacologic interventions	6 (18%)	75%
Provide safer environment	2 (6%)	48%
Seek consultation for problem behavior	1 (3%)	No follow-up data
All changes	—	66%

[a]The sum of participants who specified intended changes for the six categories is greater than the total number of participants because one participant specified changes in two categories. [b]The 13 participants who returned follow-up surveys provided implementation percentages for a total of 14 intended changes.

(48%) completed and returned the satisfaction questionnaire and commitment to change response form immediately following program completion. Between January and June 2006, three-month follow-up surveys were sent to these 33 participants, and 13 (39%) returned the completed survey.

Participant satisfaction

The program was well received, and many participants asked for it to be continued. On the satisfaction questionnaire, respondents rated the effectiveness of the program's content as 2.5 (between "average" and "excellent"), and 95% of them indicated that the program met their educational needs. Informally, participants expressed that the program validated their patient care concerns as well as their contributions on the unit. Interestingly, some of the same staff members who objected to the hour-long format of the pilot program asked that the length of the modified program be extended in order to provide additional time for discussion.

Implementation of practice changes

On the 33 commitment to change forms submitted immediately after the program, participants identified a total of 39 intended changes relating to nonpharmacologic management of disruptive behaviors in patients with dementia, with an average of about one intended change per participant. The intended changes fell into six broad categories: use patient-centered care, attempt redirection, increase listening and compassion, attempt unspecified nonpharmacologic interventions, provide a safer environment, and seek consultation for problem behaviors (Table).

The 13 participants who returned their three-month follow-up surveys provided implementation data on 14 (36%) of the 39 total intended changes indicated on the original commitment to change evaluations. No progress (0%) or no response was reported for five of the intended changes, full implementation (100%) was reported for four, and partial implementation was reported for the other five. Overall, the mean implementation success rate for these 14 intended changes was 66%.

On the follow-up survey, respondents also identified a number of important barriers to implementation of intended changes. These included: progression of dementia in individual patients, influx of new residents and environmental changes on the unit, problems with staffing levels and competing demands on staff attention, poor follow-through for behavioral interventions on the part of patients, a discipline-specific protocol that prevented social workers from making clinical interventions, and inconsistency in carry-over to other shifts in implementing behavioral treatment plans.

Patient data

During the follow-up period, MDS data demonstrated a 3.8% decline in the proportion of all patients in the VATVHS LTC facility who were taking a psychotropic drug (from 18.5% to 17.8%). There was also an 18.9% decline in the proportion of patients

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who took nine or more medications (from 56.1% to 45.5%) and a 22.7% decline in the proportion of patients who had a fall (from 8.8% to 6.8%).

THE BENEFITS OF EDUCATION

Nonpharmacologic intervention for disruptive behaviors in dementia is recommended by the American Geriatrics Society, the American Medical Directors Association, and the American Association for Geriatric Psychiatry.[4,6,7] Yet the staff concerns that prompted our clinical demonstration project suggest that many nurses and other health care professionals working with patients with dementia in the LTC setting may not have sufficient knowledge to use such interventions effectively. Our project demonstrates that an educational program that is designed to be brief, interactive, and practical can help staff members implement positive changes that improve their ability to manage disruptive behavior nonpharmacologically.

Authors of previous studies using the commitment to change methodology have argued that intentions are good predictors of subsequent behavior. Our findings generally support this notion, as participants reported an overall 66% rate of implementing intended changes. This level of implementation of behavioral change is consistent with several other published studies.[12–15] Our findings regarding barriers to implementing nonpharmacologic interventions for disruptive behaviors in dementia—which included organizational, social, technological, and environmental barriers—also were similar to those reported by other researchers.[16]

A major limitation of our study was its small sample size. Less than half of the total eligible staff members at our LTC facility participated in the program, and just under half of these participants completed commitment to change evaluations. Furthermore, only about 40% of participants who completed these evaluations provided follow-up data. The number of responses was too low to analyze according to participant subgroups, such as level of nursing training. The fairly short follow-up period of three months was another limitation.

Overall, despite these limitations, our study results suggest that the educational program helped staff to address at least some of the challenges associated with care of patients with dementia. Study participants made commitments for practice changes that were reasonable and consistent with the program's objectives, and they made progress in implementing most of these intended changes. Furthermore, the program was temporally associated with reductions in antipsychotic medication use and patient falls. We conclude that educational interventions for LTC staff may contribute to closer adherence to practice guidelines for the management of disruptive behaviors in dementia. ●

Author disclosures

The authors report no actual or potential conflicts of interest with regard to this article.

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