

Implementing the Eden Alternative on a VA Dementia Care Unit

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This program aims to improve the quality of life for nursing home residents by providing a more home-like environment. Here's how one VA facility applied its principles.

For the past few decades, nursing homes and related care institutions have come under intense scrutiny—not only from formal government regulatory agencies but also from the U.S. population. Americans, living either inside or outside of nursing homes, appear to share a generally negative view of the nursing home environment.^{1,2} While an aspect of this negative perception may be related to a larger cultural aversion to illness, a significant portion of it may be centered on the loss of freedom and control that comes with living in such an institutional setting.³ Loss of autonomy, along with a lack of personalized care and meaningful activities, can lead to boredom, loneliness and depression—the latter of which is quite prevalent among nursing home residents, particularly those with dementia.⁴

The institutional setting doesn't just affect nursing home residents. As shown by high rates of staff burnout and turnover, nursing home personnel are highly dissatisfied with the current status of their work environments.⁵⁻⁷

Many studies demonstrate that making positive changes to the en-

vironment on a dementia care unit reduces depression and other behavioral problems among residents.^{8,9} Yet this type of intervention is not used nearly as commonly as antidepressant medications or therapy.

Recently, there has been a culture shift, or transformation, within the national VA nursing home care system from a traditional medical model to a more veteran-centered care approach.¹⁰ In April 2005, a national VA nursing home "summit" was conducted in San Antonio, TX, where VA nursing home staff shared their visions for improved care at both the individual facility and national network levels.¹⁰

Applying many of the principals presented at this summit, we at the VA Pittsburgh Healthcare System (VAPHS), Pittsburgh, PA have implemented a program called the Eden Alternative (Eden Alternative, Inc., Sherburne, NY) on our Dementia Special Care Unit (DSCU) to promote change through a meaningful care environment. In this article, we provide a brief overview of the Eden Alternative and discuss the measures our facility took to employ this program within the DSCU. We also present the results of our preliminary evaluation of the fall and assault rate in the DSCU after initiating the Eden Alternative.

THE EDEN ALTERNATIVE

Developed by William Thomas, MD in 1991, the Eden Alternative aims to change the model of care in nursing homes from an institutional, medical model to a more home-like model by creating a community-oriented environment.¹¹⁻¹³ The program emphasizes building relationships between all of those involved in nursing home care, including residents, staff members, and administrators. It also incorporates outside community groups (such as schools and volunteer organizations), animals, and plants into the nursing home. The overall idea is to promote meaningful activities and contact with living things to counter loneliness, helplessness, and boredom and combat depression in nursing home residents.¹¹⁻¹³

The program has shown great promise with regard to improving the environment of nursing homes for residents without dementia. Studies have shown that employing Eden Alternative principles can enhance residents' physical and mental health while reducing their behavioral problems.^{11,14,15} For example, an initial study by Thomas showed a reduction in the rates of infections and a decrease in medication cost and usage in a nursing home that implemented the Eden Alternative.¹¹ In addition, a study conducted by the Texas Long

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Term Care Institute, which included a sample of 734 nursing home patients, showed numerous positive effects—such as significant decreases in behavioral incidents, pressure sores, and staff absenteeism and injuries.¹⁴ Results of another study of nursing home residents showed significantly lower levels of loneliness and boredom after implementation of the Eden Alternative at their long-term care facility.¹⁵

Positive changes also have been seen in terms of family members' satisfaction. For instance, in their survey of 37 family members of nursing home residents before and after implementation of an Eden Alternative program, Roshier and Robinson found a statistically significant increase in

on two beliefs: (1) that the DSCU residents would benefit the most from any changes, given that they were living on the unit long term and (2) that, if the program helped these residents (who were considered to be more impaired and have greater behavioral difficulties than patients in other nursing home units at our facility), it was likely to help all of our nursing home residents.

DSCU residents

The VAPHS DSCU is a secured unit with a maximum capacity of 50 residents and a target population of 40. Its residents typically are male veterans who have various forms of dementia, as diagnosed through neuropsychological testing. These

in nursing homes. In addition, many of the residents display behavioral problems, including assaultive behaviors. Many of them were deemed inappropriate for community nursing home placement before coming to the DSCU because their behavior was too difficult to manage or they had chronic mental illnesses prior to developing dementia. In addition, many DSCU residents have exhibited wandering behaviors and are considered to be at risk for elopement from a nursing home facility.

Staff training

In 2004, the VAPHS paid a set fee to Eden Alternative, Inc. and sent two employees to Cleveland, OH for a three-day program of specialized training on the Eden Alternative model. This training aimed to provide the skills needed to foster a supportive, home-like environment within a nursing home, as well as to educate others about the Eden Alternative in formal and informal settings. After training completion, the two employees began working with DSCU staff to implement the program. Roughly one year later, an additional 20 VAPHS employees received formal training on the Eden Alternative.

Changes to the DSCU

As its first step in implementing the program, the VAPHS evaluated the physical structure of the DSCU from the standpoint of the Eden Alternative and decided to make several changes. One such change was an expansion of the unit's floor space to provide adequate room for activities, programming, and patient wandering. The expanded unit included a new activity area with a player piano; a basketball arcade game; a pool table; a foosball table; and large windows, which allowed residents to enjoy sunlight more easily during the winter months.

Nursing home residents showed significantly lower levels of loneliness and boredom after implementation of the Eden Alternative.

family satisfaction with loved ones' care after implementation.¹⁶

IMPLEMENTING THE PROGRAM

Given the positive reports about the Eden Alternative from other nursing home facilities (both within and outside the VA) and the promising, though limited, study evidence available, VAPHS administrators decided to begin implementing the program in its DSCU in 2004. They felt that the program might lead to an improved quality of life for the residents on the unit and decrease the incidence of falls and assaults. The selection of the DSCU as the unit on which to start the program was based

dementia types include a number of vascular- and alcohol-related conditions, as well as Alzheimer disease. Unit staff with experience in public nursing home facilities are in agreement that the incidence of vascular- and alcohol-related dementias is higher and the incidence of Alzheimer disease is lower among DSCU veteran residents than in comparable community nursing home dementia units. This factor has not been formally analyzed, however.

Many DSCU residents have multiple psychiatric diagnoses or numerous chronic physical ailments—such as hypertension or diabetes—that are fairly common among older adults

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Another change was to bring plants and animals to the unit to encourage meaningful contact between the residents and other living things. The plant introductions included an outdoor area with gardening tables, an indoor garden cart in which plants could be grown during the winter, and houseplants dispersed throughout the unit. The animals, which came from donations to the unit, included a large tank housing a variety of fish, two smaller fish bowls, a dog, and a large bird sanctuary with four lovebirds. The VAPHS also began to schedule visits from pet therapists who brought more dogs to the unit.

In addition, the facility modified DSCU activities, with an emphasis on providing residents with more choices, encouraging residents to become more active, combating boredom, and promoting meaningful contact with others. The unit provided new and more scheduled

activities. New activities included off-station field trips, Tai Chi lessons, craft making sessions, and birthday parties. Staff members were encouraged to take part in the activities and share their own interests and hobbies with the residents. Following another Eden Alternative recommendation, the facility also encouraged spontaneous activities. Some of these activities arose from staff hobbies; for example, one staff member who is a musician would spontaneously play the keyboard and conduct a sing-along for the residents.

Other changes to the unit involved procedural matters and were aimed at providing residents with more choices in their daily routines. For example, the procedure of keeping residents in the dining room after dinner to ensure that they received their medications was replaced with a system allowing residents to come and go from meals as they pleased. In

addition, staff members stopped putting residents to bed and awakening them at set times, and residents were allowed to choose their own times for going to bed and rising.

The facility also made changes involving the DSCU's operational structure. One of these was the naming of a geropsychologist as the unit's interim team leader. This appointment was intended to help foster a flexible, highly effective, interdisciplinary team that would focus on the "whole person," rather than simply on medical issues, in its approach to each resident. During its meetings, the team began to view discussions of a patient's favorite activities and personality characteristics as seriously as medication changes. Communication between various professions was emphasized. In particular, since the nursing staff very often has the most contact with the residents, a charge nurse was added to the team to act

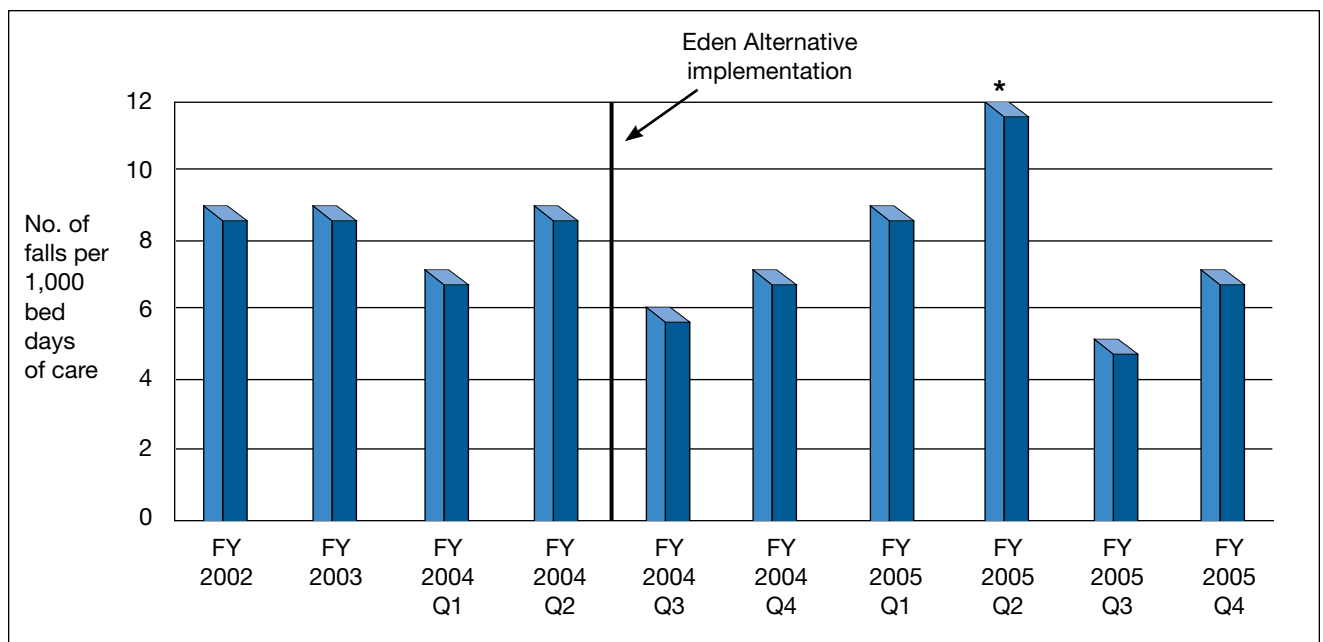


Figure 1. The fall rates of patients within the VA Pittsburgh Healthcare System's Dementia Care Unit before and after implementation of the Eden Alternative. *Around the time between the first and second quarter (Q) of fiscal year (FY) 2005, amantadine was administered to all residents of the unit due to an outbreak of influenza. Adverse effects of this medication include increased confusion, agitation, and falls.

as a liaison between the medical staff and nurses on the unit.

Overall, the facility attempted to replace the unit's medical model of care with a holistic model that was less hierarchical and more reflective of "home living."

PROGRAM EVALUATION

We focused on two areas as objective measures of the Eden Alternative's impact on the DSCU: the rate of resident falls and the rate of resident assaults, both of which were expected to decrease with implementation of the program. Our expectation for a decreased fall rate was based partly upon prior research, which suggested an association between depression and incidents of falls in older adults.¹⁷

We also expected the expansion of floor and activity space on the DSCU to decrease falls by providing residents with more room to walk and wander. Our expectation of a decreased assault rate was based partly on the belief that providing more meaningful activities would distract residents from the noxious stimuli and boredom that are conducive to instances of assault. We also believed that the incorporation of plants and animals into the unit would provide similar distractions while having a calming effect on residents.

During every quarter of each fiscal year (FY), the Quality and Patient Safety Office (QPSO) of the VAPHS collects, analyzes, and summarizes data on the number of falls and assaults that occur on every unit of the facility. After the VAPHS director provided us with access to QPSO data, we evaluated the fall and assault data from before the Eden Alternative implementation (FY 2002 through second quarter FY 2004) and afterward (third quarter FY 2004 through FY 2005).

It's very important to note that around the time between the first and

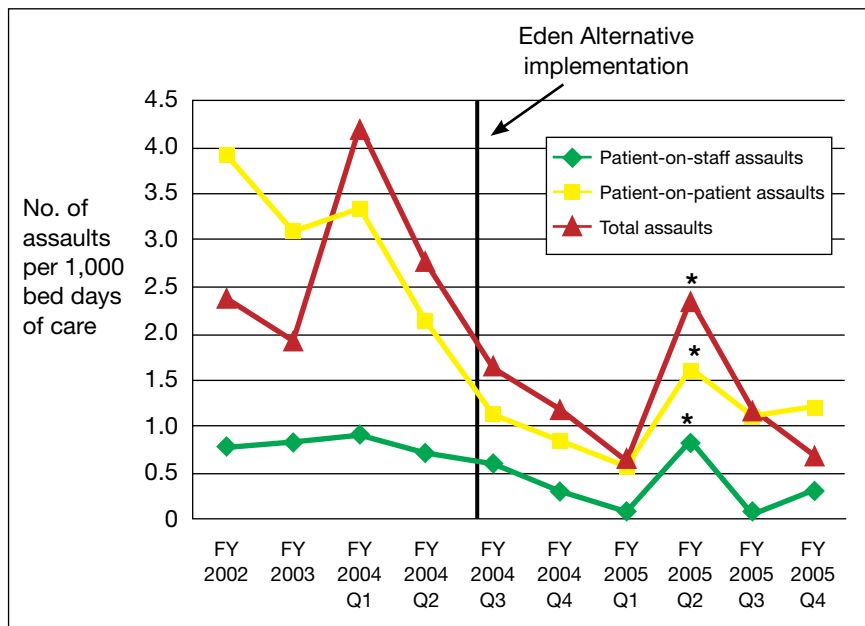


Figure 2. The patient-on-staff, patient-on-patient, and total assault rates within the VA Pittsburgh Healthcare System's Dementia Care Unit before and after implementation of the Eden Alternative. *Around the time between the first and second quarter (Q) of fiscal year (FY) 2005, amantadine was administered to all residents of the unit due to an outbreak of influenza. Adverse effects of this medication include increased confusion, agitation, and falls.

second quarters of FY 2005, an outbreak of influenza struck the DSCU. As part of the attempt to restrict this outbreak, DSCU residents were treated with amantadine, an antiviral medication. Unfortunately, this medication can cause significant adverse effects—including increased confusion, agitation, and falls—particularly in older patients with dementia. Thus, the data for this time period is likely confounded by the medication's adverse effects.

When the aforementioned confounding factor is taken into consideration, the study's overall results indicate a reduction in falls following the implementation of the changes advocated by the Eden Alternative (Figure 1). The rate of falls per 1,000 bed days of care (BDOC) decreased from an average of 8.5 before program implementation to about six in

the last two quarters of FY 2005. The overall fall rate for FY 2004 was 23% less than the two previous years.

Adjusted for the amantadine effects, the results also indicate a decrease in assaults on the unit following the program's implementation (Figure 2). During FY 2004, the total assault rate on the DSCU decreased by 73%, and patient-on-patient assaults declined 82%. The assault rate rose during the administration of amantadine in the first two quarters of FY 2005, but it appeared to decrease again in the last two quarters of FY 2005.

From the first quarter of FY 2004 to the first quarter of FY 2005, all types of assaults decreased: patient-on-staff assaults fell from 1.2 to 0.9 per 1,000 BDOC, patient-on-patient assaults fell from 3.25 to 0.25 per 1,000 BDOC, and total assaults fell

from 4.25 to 0.75 per 1,000 BDOC. Comparing raw data from FYs 2003 to 2004, the total number of patient-on-patient assaults fell from 44 in FY 2003 to 29 in FY 2004, and the total number of patient-on-staff assaults fell from 12 in FY 2003 to 10 in FY 2004. Taken together, this was a decrease from 56 total assaults in FY 2003 to 39 in FY 2004.

POSITIVE TRANSFORMATIONS

QPSO data suggest that the implementation of the changes advocated by the Eden Alternative corresponded with declines in the rates of falls and assaults on a VA dementia unit. They indicate that the Eden Alternative model can lead to positive, measurable changes that benefit the lives of residents with dementia. Given that relatively few aspects of the Eden Alternative program have been implemented on the DSCU as of yet, we believe that these initial positive changes are remarkable.

In addition to these objective results, more subjective positive changes were noted after implementing the Eden Alternative. These included positive feedback from the families of residents and VA staff, as well as staff comments that the residents appeared happier and less anxious. The relationship between residents and staff on the unit appeared to improve markedly, with both groups sharing more stories and jokes. Nursing staff on the DSCU commented that the increased space and presence of animals—particularly the dog—helped to reduce their stress level. Even hospital volunteers commented on the changes to the unit, one of them stating, “There are more smiles there now.”

EVALUATION LIMITATIONS

Our evaluation does have significant limitations. One is that some of the

positive changes we noted could have been due to a “Hawthorne effect”—influenced by the increased professional and administrative attention given to the DSCU residents during the time period we examined. We believe, however, that the presence of dementia in these patients may deflect, to some degree, any af-

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fects of outside influences on fall and assault rates.

Our evaluation also was strictly observational, with no control group for comparison or to negate other possible confounding influences. Our purpose, however, was to determine if the Eden Alternative is effective at alleviating some of the problems common in long-term care settings (such as falls and assaults) and if it was effective at improving the overall ambiance and character of this particular care unit.

MORE WORK AHEAD

Our analyses are very preliminary. The cultural changes advocated by the Eden Alternative (and similar programs) take considerable time and energy to accomplish, and the DSCU has only begun this process. Much more work needs to be done in this regard. For example, more nursing staff need to be incorporated into the decision making process for the unit. While nursing staff have been incorporated into the DSCU’s decision groups, the Eden Alternative advocates having nursing staff members attain leadership roles in these

groups. According to the program’s principles, such empowerment of staff is believed to reduce stress and staff turnover.

Another area that is being looked into for improvement is increasing visitation from community groups—especially from children and adolescents. The Eden Alternative

emphasizes the importance of fostering contact between elders and children, as such contact allows elders to pass on their accumulated wisdom and, thus, feel a greater sense of purpose.

As the DSCU continues to implement more of the program’s recommendations, we expect to have more positive outcomes. As noted earlier, the Eden Alternative was designed for all long-term care environments, not just dementia units. As such, results on nondementia units may be more significant than what we can expect at the DSCU.

POTENTIAL FOR BROAD CHANGE

The issue of “culture change” in nursing home care goes beyond the VAPHS. We expect that the Eden Alternative and similar cultural transformation methods will become more and more common in the VA as the push for change in nursing home care continues. If implementing the Eden Alternative’s core recommendations continues to reduce the rates of falls and assaults while providing other positive outcomes, the potential health benefits for VA nursing home

residents—as well as cost savings to the VA—could be quite significant.

In the general U.S. population, people are living longer, and the average age of Americans is rising. Over the next several decades, the number of people requiring nursing home care is expected to climb steadily—from 1.6 million in 2004 to 6.6 million in 2050.¹⁸ If programs such as the Eden Alternative can succeed in improving the aging experience for elders and their family members, there is a potential to shift the public's view of nursing homes. Perhaps, in the future, nursing homes will come to represent places of positive interaction that emphasize life and community—rather than hopelessness and loss of independence. ●

Author disclosures

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