

# Assessment and Management of Behavioral Symptoms in Alzheimer's Disease: A Case Study

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**M**rs. Jones screams obscenities at her neighbor. Mr. Robinson slapped a server in the dining room last week. Ms. Taylor sometimes spits at medication aids. These kinds of situations are not uncommon in assisted living facilities. In fact, approximately one-third (34%) of residential care/assisted living facility residents (RC/ALF) exhibits one or more behavioral symptoms at least once a week. Thirteen percent exhibit aggressive behavioral symptoms, 20% physically nonaggressive behavioral symptoms, 22% verbal behavioral symptoms, and 13% resist taking medications or performing activities of daily living care.<sup>1</sup>

These situations can be stressful and upsetting for residents, staff, and visitors alike. They even can put individuals at risk of physical injury. So, clearly, it is in the facility's best interest to address behavioral symptoms promptly and effectively, as well as in a way that protects everyone's safety and dignity. This sometimes seems like a daunting, nearly impossible task. However, facilities can successfully address behavioral issues if they employ proven techniques and treatments and a team approach.

## Background on Behavior

Behavior is defined as a response to a stimulus or stimuli. Agitated



behavior can be described as a condition of psychomotor excitement that appears to be purposeless and restless in nature and can include aggressive and combative actions. The elderly can act out such behaviors through speech outbursts and/or physiological, psychomotor, or social behavior.

Manifestations through speech may include cursing, shouting, crying, and talking very loudly or rapidly. Physiological manifestations may

include sleep and rest disturbances, refusal to eat or drink, and incontinence. Some of the psychomotor behaviors seen include pacing, accelerated movements, banging objects, pulling at clothes, skin, dressings, or imagined objects, and wandering. Some social behaviors include refusing to dress, striking or hitting, spitting or biting, throwing or destroying things, and forceful grabbing of people or objects.

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These behaviors may result from internal stimuli such as feeling hunger, fear, or pain; the inability to hear; or a need to use the bathroom. Agitated behavior also can result from paranoid delusions about another person's motives or actions. Stimuli also may be external and involve reactions to people, events, situations, objects, and things in the resident's physical environment. For example, an episode of physical aggression may be prompted by another person's verbal or physical threats or perceived threats, as well as excessive noise, commotion, or crowding. The specific response that an elderly person has to a stimulus will be affected by many things, including the presence of pain, memories of past experiences, and level of cognitive impairment.

### Assessing Agitation

Agitation is a broad term and could be caused by delirium, depression, anxiety disorder, or pain; or it simply could be a manifestation of the typical neuropsychiatric symptoms/behaviors of dementing disorders such as Alzheimer's disease. During assessment, it is important to determine any precipitants, association with the environment, speed of onset, and duration of the behaviors. In at least one study, behavioral symptoms in RC/ALF residents were associated with the presence of depression, psychosis, dementia, cognitive impairment, and functional dependency, and these relationships persisted across subtypes of behavioral symptoms. Overall, behavioral symptoms were more prevalent in smaller facilities. More than 50% of the 2,000 RC/AL residents studied were taking a psychotropic medication, and two-thirds had some mental health problem such as dementia, depression, psy-

## Case Study: Mrs. Harold

Mrs. Eva Harold, a 78-year-old female, has been a resident of ABC Assisted Living for about two years. Her husband initially admitted her because of Alzheimer's disease, associated memory decline, and progressive need for assistance with activities of daily living (ADLs) that could not be met by her family or community-based programs. She had a history of osteoarthritis but was otherwise healthy. She had a Mini Mental State Exam (MMSE)=18 (moderate cognitive impairment) on admission. Meds on admission were galantamine (Razadyne ER<sup>®</sup>) 24 mg daily and celecoxib (Celebrex<sup>®</sup>) 200 mg daily.

Nursing staff describe Mrs. Harold as a sweet lady. However, recently she began having confrontations with staff and has become increasingly restless and agitated. She even started hitting staff. These behaviors are especially prominent during the evenings. She also seems sad and has been expressing helplessness and hopelessness in comments to staff. She recently shouted for an aid to leave her room—for unclear reasons—while the two of them were looking at pictures from one of her photo albums. She was restless and tense today; and, as the sun began to set, another resident approached her in her room, voices were raised, and Mrs. Harold struck the other resident.

The resident is assessed for her new onset of behaviors. Physical examination, blood work, and medication review are negative. The short form GDS=8 (above 5 positive screen for depression). She also appears sad and expresses helplessness and hopelessness. Her pain scale score is 0 out of 5 (zero being no pain). She is started on the selective serotonin reuptake inhibitor (SSRI) escitalopram (Lexapro<sup>®</sup>), 10 mg daily, for her depression; and improvement in her behaviors and mood is noted within two weeks.

By six weeks, her mood is normal. However, in spite of antidepressant therapy and appropriate nursing interventions for behaviors, she still exhibits occasional irritability and agitation. Her MMSE is repeated; and it has decreased to 15 from 18—her score of two years ago. MMSE scores normally decline 2-4 points per year without drug therapy for Alzheimer's disease; so, in this case, galantamine most likely has slowed the progression of the disease. Since Mrs. Harold has moderate Alzheimer's disease, her physician adds memantine (Namenda<sup>®</sup>) and titrates it to 10 mg bid.

chosis, or other psychiatric illness.

For new onset of behaviors such as Mrs. Harold's (described in the case study) a physical examination and lab work (CBC, TSH, electrolytes, renal and hepatic function, and urinalysis) would be appropriate to rule out delirium. Delirium is generally an acute confusional state that is considered a medical emergency and has a mortality of 15-30%, in spite of usually being reversible if the cause is found.

The most common causes of delirium are sepsis, dehydration, and untoward medication effects—especially anticholinergic effects. Although some of the diagnostic crite-

ria for delirium may be fulfilled in a resident with dementia, the relatively acute onset of symptoms—especially if there are hallucinations, disorganized thinking with rambling, irrelevant, or incoherent speech, and the inability to maintain attention—are specific to delirium.

### Linking Depression and Behaviors

Residents with dementia who manifest physical or verbal aggression have been shown to have a higher prevalence of depression than those without such behaviors. Therefore, residents with aggressive behaviors should be screened for depression.<sup>2</sup>

Depressive symptoms also are associated with disruptive vocalizations such as yelling, screaming, and other repetitive verbalizations; and they may have an etiological role in the generation of disruptive vocalization behaviors in elderly nursing home residents.<sup>3</sup> Chronic and PRN use of benzodiazepines also is linked to depression.<sup>4</sup>

Depression in residents with dementia can be difficult to identify since cognitive disturbances such as sleep and appetite, psychomotor retardation, and disinterest in usually pleasurable activities may occur in dementia syndromes without any mood abnormalities. Therefore, reliance on these symptoms alone may lead to the overdiagnosis of depression. In this regard, demented residents who appear sad or make statements suggesting helplessness, hopelessness, and worthlessness may be better guides.<sup>5</sup> If a screening scale is used, it is recommended employing the Short Version Geriatric Depression Scale (GDS) if the MMSE score is greater than or equal to 15 and the Cornell Scale if MMSE is less than 15.<sup>6</sup>

Pain is not uncommon in cognitively impaired seniors; and this can lead both to depression and to behavioral issues. It always is essential to do everything possible to keep residents pain-free. However, pain assessments are particularly important when residents are cognitively impaired and unable or unlikely to report pain independently.

Mildly to moderately impaired residents are able to report pain using standard assessments scales (eg, "Faces"). Any such evaluations—as well as self-reports of pain—should be taken seriously and acted on, as these individuals are known to under report pain. Their reports of pain are valid and no less reliable than pain reported in cognitively intact residents.<sup>7</sup> Pain assessments should be done whenever a behavioral problem arises, particularly when the behavior (eg, rubbing hands and moaning, crying, and

cradling one's head) suggests the presence of pain.

### **Addressing Behaviors Case by Case**

The nursing staff should perform a behavioral assessment on residents such as Mrs. Harold. This is really a search for what triggered the behavior and involves looking at the problem behavior in the context in which it occurred:

- What behavior was observed?
- Where did it occur?
- Who was there and what were they doing?

### **During assessment, it is important to determine any precipitants, association with environment, speed of onset, and duration of behaviors.**

- What time of day was it?
- Was anything happening that might have caused the behavior?
- How did the staff, patient, and others respond?
- What is the person usually like?
- Has there been a change in the routine?

Staff members likely will need to observe the behavior several times to fully assess all aspects. However, only behaviors that do not endanger the resident or others should be permitted to continue for observation purposes. If possible, the staff should find out all they can about the resident's impression of the triggering situation. After the person has returned to more quiet behavior, a trusted staff person can sit and ask about what happened, saying, for

example, "You were very upset before. How do you feel now?"

When gathering information about the behavior, it is important to include its consequences in the assessment. What do staff members usually do when the behavior occurs? Agitated and combative behavior actually is reinforced by the consequences imposed by the staff. For example, a person may engage in the behavior simply to receive attention from the staff. This happens most often when this is the only attention the person gets. Staff must realize that the purpose of all behaviors is to satisfy needs. When they consider the internal and external stimuli that preceded, accompanied, and followed the behavior, they may discover that the agitated and combative behavior they are observing is not random and unpredictable at all, but purposeful and predictable.

It is not uncommon for demented residents such as Mrs. Harold to exhibit such behavior. When they can't explicitly say what they need, they often resort to acting out behaviors that may represent insecurity, hunger, being cold or hot, environmental overstimulation from noise, loss of control, fear, loneliness, abandonment, or other feelings, concerns, or needs.

It is important for nursing to respond to Mrs. Harold's needs, not her behavior. In this case, the best approach for the aid who the resident yelled at would be:

- Repeat what Mrs. Harold said about wanting her to leave, which shows the aid is listening. It also validates the resident's feelings of anger and encourages the resident to express specifically what is upsetting her. In this case, Mrs. Harold explains that she misses her husband.
- Express through action (nodding, taking the resident's hand, etc.) the resident's expressed loneliness.
- Attempt to distract the resident by redirecting the conversation to something positive. In this case,

the aid points out what a beautiful day it is outside and suggests that Mrs. Harold might like to go for a walk later. Throughout such interactions, the resident is treated with respect.

Demented residents are very sensitive to moods and attitudes of their caregivers, so the aid in this case helped ease Mrs. Harold's agitation by remaining calm, pleasant, respectful, and positive. In essence, the aid's actions helped defuse a potentially volatile situation and prevented the behavior from getting worse. If the aid failed to recognize and meet the resident's needs, the result may have been worsened behavior—including physical violence or unsafe wandering behavior.

By pin-pointing the needs or feelings being expressed through the behavior, the nursing staff may be able to prevent or decrease agitated behaviors. This also should involve addressing the resident's environment—ensuring that his or her room or apartment is homey, quiet, pleasant, clean, and contains items the individual finds comfort in and loves.

### When Behavior Calls for Higher Care Levels

Unfortunately, not all behavioral symptoms can be resolved through nonpharmacologic means or simple employment of listening and problem-solving skills. When the resident has significant behavioral symptoms and/or behaviors put the resident or others at immediate risk of harm or danger, medication may be necessary. Of the three widely used acetylcholinesterase inhibitors (donepezil, galantamine, rivastigmine), only donepezil and galantamine have evidence from double-blind, randomized placebo controlled trials for statistically significant effects on delayed emergence or improvement of neuropsychiatric symptoms/behaviors associated with dementia.<sup>8</sup> Memantine, an NMDA receptor antagonist, used in combination with an acetyl-

cholinesterase inhibitor, also has been shown to improve neuropsychiatric symptoms/behaviors in moderate to severe Alzheimer's disease.<sup>9</sup>

If behavioral symptoms such as Mrs. Harold's continue or progress and are unable to be managed in the AL setting, it is likely she will need a higher level of care and require transfer to a nursing home. In one study,<sup>10</sup> patients taking acetylcholinesterase inhibitors were 2.5 times more likely to progress slowly and had a lower risk of nursing home admission after two years—even after controlling for multiple

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factors that can alter the course of the disease. In addition, memantine, when compared to placebo, has showed a trend toward a statistically significant advantage for patients in decreasing time to institutionalization.<sup>11</sup> All of these issues should be considered when making treatment decisions for residents with behavioral symptoms.

Managing behavioral symptoms promptly and accurately is key to keeping residents—and staff—safe and content. It also can help enable cognitively impaired residents to postpone or even prevent a move to a nursing home. It is important that all practitioners and staff who interact with residents know to watch for behavioral symptoms and understand how to address them and when to report problems to the

supervising nurse or the resident's physician. Involving family members also can help resolve behavioral issues and prevent misunderstandings or situations that can accelerate unnecessarily into legal action. Finally, successfully managing behaviors will help keep residents happy and secure and enable them to enjoy the dignity and respect they have earned. ALC

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