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Person-centered primary care strategies for assessment and intervention for aggressive behaviors in dementia

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Abstract

With an increase in the number of individuals affected by dementia, it is imperative for healthcare providers to be well versed in the most effective ways to manage neuropsychiatric symptoms such as aggression. Aggression can be particularly hard to manage because it creates risk of harm for both formal and informal caregivers and options for medical intervention are complex and situation dependent. While multiple guidelines for management of aggression in dementia are available in the literature, their scope is widespread and suggested treatments often vary, making decision making difficult to navigate for busy clinicians. Using a composite case as a model, this paper provides guidelines that take outpatient providers through the steps needed to provide effective treatment for aggression in individuals with dementia. Shifting the current focal point of healthcare for aggressive dementia patients towards a more person-centered approach will have a positive impact on patient care.

Keywords

Practice guidelines; person-centered care; neuropsychiatric behaviors; aggression; dementia

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The case presented is a fiction created from several cases that were seen in the healthcare system in which the authors have worked. Although the biographic details are fiction, the behaviors and interventions discussed occurred as presented. The SQUIRE guideline was used to ensure comprehensive reporting.

Disclosure statements

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It is anticipated that over 81 million people worldwide will have some type of dementia within the next 25 years, with rates in the United States currently hovering around 5.2 million and expected to double every 20 years (Prince et al., 2013). Consequently, it is becoming increasingly important for primary care and general outpatient practice providers to be able to effectively care for this population. One area of particular concern is the presence of neuropsychiatric behaviors, as they have been estimated to be present in up to 90% of individuals with dementia (Steinberg et al., 2003; Wharton & Ford, 2014). In particular, aggression can be particularly hard to manage because it creates risk of harm for both formal and informal caregivers and options for medical intervention are complex and situation dependent (Morgan et al., 2013). Currently, non-pharmacologic techniques are recommended as the primary management for aggressive behavior in dementia (Vickland et al., 2012). Medication should be considered as a second line treatment; however, there is evidence implying overuse (Kales, Gitlin, & Lyketsos, 2014). This is problematic since efficacy of medications aimed at treating aggression in dementia is questionable and these medications may cause detrimental side effects and unintended consequences related to morbidity and mortality (Maust et al., 2015).

It is speculated that this improper use of medication may be due to an array of factors, including concern for the safety of a person's caregivers and providers' lack of awareness or training regarding effective behavioral treatments and ineffectiveness of pharmaceutical interventions. While multiple guidelines for management of dementia are available in the literature, their scope is widespread and suggested treatments often vary, which makes decision making difficult to navigate. Using the following composite case as a model, this paper will provide some broad guidelines that will explain the steps needed to provide effective treatment for aggression in persons diagnosed with dementia. We identified recent treatments being discussed as feasible for outpatient settings by searching PubMed, Medline, and EBSCO databases. We present summarized evidence about these, as well as several evidence-based frameworks for assessment and intervention. Additionally, we will discuss some of the published interventions that may be appropriate for primary care settings.

The Case of Mr. Jones and his Caregiver

Mr. Jones, a widower, presented to the outpatient geriatric clinic at 89 years old post-discharge from the emergency room for evaluation after an incident of extreme paranoia and aggression against his caregiver. He grew up in the rural western United States, the youngest of 10 children, and completed fourth grade before leaving school to work. He worked as a mechanic, and met his wife in his mid-20s. The couple had two sons and the family was active in the community and their church. Mr. Jones's wife died in her late 70s and Mr. Jones struggled with grief and later with depression.

Mr. Jones currently lives with his unmarried, retired son, who has recently filed for guardianship and financial conservatorship as Mr. Jones's cognitive deficits have worsened, compounded by multiple chronic medical conditions. Among the concerning issues are CAD, esophageal stricture with history of dilation, and significant sensory changes in both hearing and sight. Mr. Jones demonstrated cognitive decline several years ago; his short term memory had significant deficit, but he remained independent in ADLs with only minor

supervision for more complicated tasks such as showering and changing clothes. He was diagnosed with dementia with behavioral disturbances at the age of 87. Following a serious sinus infection that year, he faced a steep cognitive decline and began to have “panic attacks” and paranoia. He was started on alprazolam (Xanax) 0.25 mg, three times a day by his primary care physician. After recovering, Mr. Jones had difficulty communicating, often confusing his words and struggling with speech. It is presumed that he had a prolonged episode of delirium while struggling with the infection and this may have contributed to his changed baseline.

Mr. Jones has become increasingly paranoid. He becomes angry, searching continuously for money in his wallet and yelling that his car has been vandalized. In reality, Mr. Jones’s son has managed his money for him for some time, and has disabled the car to prevent his father from attempting to drive. Additionally, in recent months, Mr. Jones did not recognize his home reliably and wandered, especially when he was angry. The cause of his anger and the triggers for his paranoia were unclear to his son. There were no apparent visual or auditory hallucinations. He had not previously been physically aggressive, although he had episodic bursts of psychomotor agitation and verbal aggression, such as shouting, arguing, and cursing. In addition to medication for glaucoma and allergies, Mr. Jones takes multivitamins, mirtazapine (Remeron) 15 mg daily to stimulate his appetite, alprazolam (Xanax) 0.25 mg three times a day for “panic attacks”, and 50 mg of Trazodone at bedtime for behavior management, plus an additional 50 mg as needed for sleep, also started by his primary care physician at some point in the past.

One day, Mr. Jones refused his morning Xanax dose and subsequently was found wandering outside. His son convinced him to return to the house and attempted to administer the medication, but Mr. Jones grabbed a knife, and tried to attack his son. Emergency-911 was called, and Mr. Jones was eventually calmed down by the police and taken to the hospital via ambulance for evaluation. After several hours, Mr. Jones fell asleep and was released to his son to return home, now calm and quiet. This event is typical of encounters that have been happening with increasing frequency over the last six months. Mr. Jones’s son has become concerned about physical safety, since his father is ambulatory and unable to manage his paranoia as his dementia worsens. It is the son’s perception that while the Xanax and Trazadone may once have had some benefit these drugs are no longer successfully managing Mr. Jones’s behavioral disturbance. Since Mr. Jones’s decline included some disintegration in language capacity, communication between the two men had fallen apart and the son was unsure how to understand his father’s needs.

Over the course of examination and interviewing both the patient and son, the trigger for the most aggressive behavior was discovered. Mr. Jones had difficulty swallowing due to the esophageal strictures, and as a result his throat was raw and painful. As he did not reliably recognize his son, he had become convinced that a stranger was trying to poison him, since the liquid medication that he took burned his throat. As a result, he began to defend himself against what he perceived as an assault. Only by involving both the patient and caregiver in a thorough review of behaviors and antecedents were we able to piece together the sequence of events that set off Mr. Jones’s paranoid delusion and aggressive behaviors. Once this was identified, communicating identity and purpose of tasks at multiple timepoints throughout

the day was put in place, and the son was coached on techniques for engaging his father. In an effort to decrease unnecessary and perhaps deleterious pharmacologic agents, the trazadone and alprazolam were tapered to discontinuation while monitoring for rebound agitation. The physical assaults became less frequent, and Mr. Jones was subsequently observed to be less confused and disoriented during the day.

Assessing & Intervening: Aggression in Dementia

The case of Mr. Jones and his son highlights the potential adverse effects of using medications as a first line approach to addressing aggression and the benefits of management of behavior through non-pharmacologic methods and attention to context. Evidence suggests that 30–50% of behavioral disturbances in dementia are severe aggression (Cipriani, Vedovello, Nuti, & Di Fiorino, 2011; Kunik et al., 2010), demonstrating the importance of proficiency in assessing the development and triggers for aggressive behavior. As a result of the many different medical, social, and emotional factors that may play a part in behavior, providers must develop sensitivity to the many aspects of the patient's life and become comfortable either assessing complex patterns of behavior or making referrals to allied professionals who can assist with this process. Failure to consider a broader scope than purely biologically-driven concerns in these individuals could lead to incorrect diagnosis, inappropriate treatment, or missed opportunities to improve the quality of life for both the person and caregiver, as the trigger for the behavior is often communicative and environment-responsive rather than disease driven.

Identifying Causes of Aggression

Aggression in individuals with dementia may be due to a person's inability to communicate unmet needs (Dettmore, Kolanowski, & Boustani, 2009), and by the time this behavior is brought to the attention of healthcare providers, there is often significant risk involved already, as in the case presented above. Challenging behaviors are frequently viewed as a common development in dementia and thus caregivers feel it is not worth reporting to health providers when they initially appear. One goal of care should therefore be to elucidate family concerns regarding safety and quality of life. These concerns are wide ranging but can generally be divided into three groups: factors internal to the person, factors precipitated by the environment or by the caregiver-care recipient interaction, and idiopathic factors (Kales et al., 2014).

Internal Factors—There are many aspects of a patient's wellbeing that must be assessed when trying to determine the causative factors of aggression. Table 1 lists some of the most commonly noted factors that are based internally to the person and may lead to incidents of aggression (Ahn & Horgas, 2014; Gitlin, Kales, & Lyketsos, 2012; Menon et al., 2001; Nguyen, Love, & Kunik, 2008; Tan et al., 2015). While identifying and alleviating these problems can decrease aggression, it is also important to screen for these symptoms even in early stages of disease progression, as preventing them from occurring or minimizing their severity may prevent the initial formation of high risk behaviors (Nguyen et al., 2008).

It is important to note that details of aggressive incidents may provide clues to the underlying cause or trigger. Specifically, the nature of the aggression may relate to a

person's capacity for communication. In our case study, the sequence of events that led to the aggressive behavior was critically important to discovery of the triggers for what happened. While the presence of depression or frustration and trajectory of cognitive impairment all play a part, this case involved the formation of a delusion on the part of the person- one that arose out of a not unreasonable leap of logic resulting from his confusion.

Environmental Factors and Factors related to Interaction—Table 2 lists some commonly noted environmental and interactional factors which may trigger development of aggression (Dettmore et al., 2009; Fleming & Purandare, 2010; Norton, Allen, Snow, Hardin, & Burgio, 2010; Wharton & Ford, 2014).

Idiopathic factors or factors of unknown origin—Occasionally, there is no identifiable cause or pattern to the onset of aggressive behaviors. In these cases, it is possible that the aggression is due to a neurochemical dysfunction or hormone imbalance (Orengo, Kunik, Molinari, Wristers, & Yudofsky, 2002; Rosenberg, Nowrangi, & Lyketsos, 2015). If an effective nonpharmacologic treatment cannot be found and the aggression is severe, pharmacologic interventions may be necessary. It is advised to “start low and go slow” when administering medication, and examine the latest literature and black box warnings regarding efficacy and safety in available drugs, as research in this area continues to advance (Kales et al., 2007; Maust et al., 2015; Rosenberg et al., 2012).

Treatment and Intervention Options

Identification of antecedents for aggression is the most reliable means of creating a treatment plan that will be effective. Alleviating underlying causes for behavioral disruption is an approach that is safer than pharmacological intervention and more likely to persist over time. In the case of Mr. Jones and his son, pharmacological approaches were ineffective; identification of the underlying reasons for the behavior resulted in a significant change to the interactions occurring between them, leading to a sustainable improvement that avoided similar triggers for dangerous behavior. The movement towards this kind of emphasis on the experience and communication of needs of the person over an emphasis on functioning or task completion or by the pure application of expertise by the healthcare provider is referred to as “patient-centered” or “person-centered care” (Edvardsson, Winblad, & Sandman, 2008; Gilmore-Bykovskiy, Roberts, Bowers, & Brown, 2015). There are a number of specific strategies that providers can use to improve their implementation of person-centered care, improve the quality of life of both the person and caregiver, and decrease need for as-needed medications to manage aggressive behaviors. Strategies such as those listed in Table 3 help to actively engage with both the person and caregiver in a way that promotes deep investigation of patterns of symptoms by providing an environment that is conducive to active participation of the person in a meaningful way (Edvardsson et al., 2008; Fossey et al., 2006; Gilmore-Bykovskiy et al., 2015; Hoefler et al., 2006; Zeisel et al., 2003; Zingmark, Sandman, & Norberg, 2002).

In addition to these broad approaches, straightforward approaches by the provider can enhance patient encounters, such as: minding body language to communicate a positive attitude, sitting at the person's eye level and ensuring that you have his/her attention before

speaking, using simple, answerable questions and short sentences, and observing behavior and body language as well as listening to the words spoken by the patient. It is important to remember that individuals struggling with communication may use their reserve capacity to creatively communicate using physical expressions or alternate words. One specific intervention model that applies these principles to identify optimal treatment options for patient-caregiver dyads in crisis is called the DICE (Describe, Investigate, Create, Evaluate) approach. This model, created at the University of Michigan Program for Positive Aging using an expert panel of consultants, is described in detail elsewhere (Fraker, Kales, Blazek, Kavanagh, & Gitlin, 2014), but may be summarized with the following steps:

1. *Describe*: Talk with caregivers and the patient to identify specific neuropsychiatric symptoms and possible underlying causes.
2. *Investigate*: Consider the many possible underlying causes in hopes of determining the true cause. At this step, it is important to consider factors of the person, caregiver, and environment.
3. *Create*: Engage with all available members of the person's care team to help alleviate the previously identified underlying causes. This may involve changing medication regimens or altering the person's physical environment.
 - a. Provide caregiver education,
 - b. Improve effective communication between patient and caregiver,
 - c. Assist the caregiver to create meaningful activities for the person,
 - d. Coach the caregiver to simplify tasks and structure routines.
4. *Evaluate*: Evaluate the efficacy of the interventions, with awareness that these may need to be revisited over time as the disease progresses.

Interventions with unclear effects—While models such as the DICE method are evidence-supported, there are a range of interventions that lack clear evidence of efficacy, due to either mixed results, poor methodology, or lack of sufficient evidence. It is important to remember that poor evidence or absence of research is not the same as evidence of harm. Alternative approaches may be helpful for individual patients and their families, particularly in challenging or puzzling cases, given the overall low risk and potential for substantial benefit.

1. Animal assisted therapy: Animal assisted, or pet therapy involves interactions between the patient and an animal (Bernabei et al., 2013). Evidence suggests that animal assisted therapy, which may involve either live or robotic pets, may reduce agitation in individuals with dementia. Evidence on this topic is inconsistent, however, as available studies show wide variance in methodological rigor.
2. Music Therapy: Livingston et al. (2014) suggest that music therapy is effective at reducing immediate but not long-term agitation if it follows a specific protocol, which was described as involving a trained therapist and set routine of both listening to and singing along with music. However, due to the low-cost, low-

risk, and ease of providing this therapy (Blackburn & Bradshaw, 2014), attempting such an intervention even without a specific protocol may be worthwhile.

3. **Exercise:** Evidence suggests that exercise improves behavioral symptoms of dementia by enhancing quality of life. While some studies have shown that exercising decreases agitation and aggression (Thuné-Boyle, Iliffe, Cerga-Pashoja, Lowery, & Warner, 2012), it has also been noted that the evidence on this topic is weak, making the effects unclear (Livingston et al., 2014). Likewise, the type and amount of exercise patients should do has not been clearly defined (Thuné-Boyle et al., 2012).

The Patient-Caregiver Relationship—Two important aspects of the patient-caregiver relationship that must be considered by healthcare providers are mutuality (the quality of patient-caregiver relationship) and caregiver burden for informal caregivers (Morgan et al., 2013). There is evidence suggesting that both increased mutuality between the provider and family, and recognition of the impact of caregiver burden on informal caregivers can lower the risks for patient aggression (Ball et al., 2010). It is therefore important for providers to work with individuals and their families to address both of these aspects. There are two main approaches that have demonstrated effectiveness in clinical practice: (1) counseling caregivers on ways to better care for individuals with dementia in order to directly improve the patient-caregiver relationship (i.e. person-centered care); and (2) teaching caregivers self-care strategies not directly related to caregiving that have been shown to decrease perceived caregiver burden and improve coping. There are several methods to address each of these in practice; we discussed person-centered care in the previous section of this paper. Let us now focus on strategies for caregivers to decrease perceived burden and improve coping.

Caregiver Burden—Neuropsychiatric symptoms of dementia have been found to increase the burden felt by caregivers and aggression has specifically been shown to increase stress (De Vugt et al., 2004; Kales et al., 2014). Likewise, increases in caregiver burden have been shown to precipitate behavioral symptoms in individuals with dementia (Kales, Gitlin, & Lyketsos, 2015). The two-way relationship between caregiver burden and increased behavioral symptoms in individuals with dementia thus has the potential for a positive feedback loop: an increase in behavioral symptoms could propagate caregiver burden which could then propagate behavioral symptoms. One approach to breaking the feedback loop is to address stress management and coping in caregivers. Currently, there are over 200 randomized clinical trials that show effective interventions for dementia caregivers (Gitlin, Marx, Stanley, & Hodgson, 2015), although most are not feasible in a primary care setting; we highlight some interventions that may be implemented within the context of a patient encounter, including the most frequently referred to in the literature. Providers may either get training in implementing these strategies, or partner with behavioral health providers who can implement these interventions with the families and patients.

Life Enhancing Activities for Family Caregivers (LEAF): The LEAF intervention has been shown to increase positive affect and decrease perceived burden and negative affect in

caregivers of individuals with frontotemporal dementia, although evidence suggests that this strategy may be successful with other types of dementia. The intervention is targeted at helping caregivers develop skills to combat burden through identifying positive events in life, expressing gratitude, being mindful and nonjudgmental, reappraising negative events, identifying and utilizing personal strengths, and being altruistic (Dowling et al., 2013). Fostering these skills in caregivers may help decrease their perceived burden and provide expanded personal resources with which to manage behaviors, although providers must be cautious to not minimize caregiver experience or place blame.

Mindfulness-Based Stress Reduction (MBSR): MBSR is a technique that uses mindfulness to reduce stress and manage hardship (Rouleau, Garland, & Carlson, 2015). Specifically, this technique involves increasing awareness of the present and passively noting current thoughts and experiences without judging them. MBSR has been shown to improve coping skills, self-reflection, awareness and acceptance. In the context of caregivers for individuals with dementia, MBSR has been shown to decrease depression, lower stress, and improve mental health, anxiety, and burden (Whitebird et al., 2012).

Fostering Mutuality and Community-based support: Mutuality refers to the quality of the relationship between individuals with dementia and their informal caregivers. This relationship has been found to be inversely correlated with aggression: decreases in mutuality are suggestive of increases in aggression (Morgan et al., 2013). Fostering a strong relationship between caregivers and patients can thus help manage aggression; however, maintaining long-term, positive mutuality can be difficult for an overworked or stressed caregiver who may be faced with dangerous and potentially traumatizing behaviors such as those exhibited in our case example. Encouraging caregivers to maintain or develop connections with supportive communities (which may be either informal friends or coworkers, or more formalized support groups), the person they are caring for, and/or spiritual communities can revitalize caregivers and help them improve their relationship with their care recipient (Faver, 2004).

Interventions such as the *Resources for Enhancing Alzheimer's Caregiver Health* programs, *Maximizing Independence at Home*, *Savvy Caregiver*, and *Care of Persons with Dementia in their Environments* are among the nearly 200 identified programs to have demonstrated statistically significant outcomes related to caregiver burden and management of behavioral disruptions (Gitlin et al., 2015). These programs involve multiple sessions that engage with a range of approaches, including education and training, self-care and relaxation, and environmental restructuring. Although these programs have demonstrated efficacy, there are few mechanisms in place to fund delivery of these evidence-based interventions, and as a result they are available in limited fashion in day-to-day practice, and are infrequently available even through referral to behavioral health providers.

It is important to note that research on methods for decreasing caregiver burden specifically related to aggression is limited. However, as caregiver burden is often related to behavioral disturbances in dementia, and aggression is one such disturbance, it is possible that these interventions will have at least some effect on caregiver burden, which could subsequently reduce aggression.

The Affordable Care Act (ACA) provides incentives for interprofessional care, as well as for inclusion of both behavioral health specialists and care managers in primary medical homes for patients. Although findings from inclusion of these specialties are good, the uptake of such care structure continues to evolve in American healthcare. If such professionals are part of the primary care team, their intervention with families to provide both counseling and logistical support can be invaluable. Outside referral to such specialists may be worthwhile for primary care providers, in order to facilitate the caregiver and patient's ability to maintain safely in their community-based setting, while not providing an unsustainable burden to intervene directly in the primary care setting.

CONCLUSION

Aggression is an unfortunate yet serious and not uncommon development of dementia, and while nonpharmacologic interventions are recommended as first line treatments, medications are still overused in busy clinical settings (Maust et al., 2015). Nonpharmacologic interventions are thought to be effective due to the etiology of aggressive outbursts: it has been suggested that aggression arises from a person with dementia's inability to coherently express needs, concerns, or emotions as they once were presumably able to do (Dettmore et al., 2009; Kales et al., 2014; Vickland et al., 2012). Once this underlying mechanism is elucidated, the efficacy of nonpharmacologic interventions becomes clear.

Nonpharmacologic interventions largely focus on resolving underlying causes, whereas pharmacologic interventions often focus on treating symptoms. By taking a person-centered approach to healthcare that focuses on mutual respect, developing a strong patient-caregiver relationship, and caring for all aspects of the person, an environment is created that is both comfortable for patients and receptive to their needs.

With an increase in the number of individuals affected by dementia, it is imperative for healthcare providers to be well versed in the most effective ways to manage aggression, as it can be dangerous not only to the patient but also to others. Shifting the current focal point of healthcare for aggressive dementia behaviors towards a more person-centered approach will have a positive impact on patient care. In the case of Mr. Jones and his son, the patient was only successfully managed once the healthcare team identified precipitating factors and implemented lifestyle changes and management approaches that determined and separated the unique combination of events that triggered his aggression. Taking a similar approach to individuals with dementia will improve the ability to care for this population, subsequently leading to a better quality of life.

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Table 1**Internal Factors Contributing to Aggressive Behaviors**

Pain	Management of pain has been correlated with decreased agitation and aggression
Sensory change	Sensory changes such as decreased vision or hearing can impair the ability to understand information being communicated, and can lead to increased confusion or disorientation, which has been correlated with aggressive behavior
Nutrition	Hunger or blood glucose levels, as well as gastro-intestinal discomfort related to nutrition may lead to behavioral disruption
Constipation or Hydration	Medications used for comorbid issues may cause constipation or dehydration, and swallowing ability may impact on ease of hydration without IV fluid support
Depression	Evidence supports a link between aggression and depression. Treating depression using behavioral activation and person-centered activities, followed by medication if needed, may reduce or resolve symptoms of aggression
Psychosis or Delirium [*]	Psychosis in dementia often includes delusions and/or hallucinations and may precipitate aggression. Treating psychosis early with medication may prevent future outbursts of aggression, but due to the higher risk of side effects of antipsychotics and limited success rates for impacting behavior, as well as an impact on mortality that is higher than previously estimated, this decision should be carefully considered and involve individuals and their families in the decision making process
Agitation	Defined by the International Psychogeriatric Association to include verbal aggression, physical aggression, and a nonaggressive form, although varied widely in the literature. Nonaggressive agitation has been shown to be a precursor to physical aggression. Some examples of behaviors that may be indicative of agitation include inappropriate dressing, spitting, screaming, or wandering. Such behaviors may be indicative of attempts at communication by an individual who has lost the ability to converse fluently and express ideas or concerns, leading to the enactment of behavior to express frustration, pain, exhaustion, etc.

^{*} It is important to note that individuals with dementia are at a greater risk for delirium, an acute medical crisis. Delirium is hallmarked by rapid onset of agitation or psychotic type symptoms, confusion or disorientation, and waxing and waning symptoms. It is usually caused by infection of some type (such as a urinary tract infection), although medication interactions or fluid imbalances are other common causes. While presenting symptoms may appear psychotic in nature, the nature of the cause of delirium is distinctly different and requires a completely different approach to pharmacological intervention for psychosis. Treating providers are cautioned to remain vigilant for delirium and to become familiar with assessment and diagnosis of this condition.

Table 2**Environmental Factors & Factors Related to Interaction**

Overstimulation	Individuals with dementia have trouble processing their environment as a result of cognitive impairment, leading to a general sense of overwhelm that may be communicated behaviorally. Potential causes of overstimulation may include excess noise, clutter, crowding, and activity in close proximity; reducing these stimuli may help combat agitation and preempt incidents of aggression.
Understimulation	Understimulation and boredom may lead to behavioral disturbances
Care Management of ADLs	Aggression is often present in patients whose basic needs are not met. Neglect of what the person perceives as appropriate feeding, bathing, or toileting, for example, can promote aggressive behaviors as individuals attempt to communicate discomfort or displeasure. Seeking a balance between promoting independence and ensuring safety and care may resolve behaviors, as individuals are able to retain some dignity and personal agency, although this balance requires an ongoing assessment as the disease burden progresses. In later stages, attention to individual privacy and dignity, as well as pain and other signs of physical discomfort is paramount. Bathroom related aggression and agitation are known areas of risk, and person-centered approaches (focused on the comfort and dignity of the person, rather than the efficiency of the task) have been found to reliably decrease such symptoms.
Changes in Environment, Routine, or CG	Dealing with change can be challenging for individuals who already struggle with consistency in memory; Having consistent caregivers and establishing routines is beneficial.

Table 3

Strategies for Engaged Person-Centered Care with Individuals with Dementia

• Environmental	
•	Simplify and personalize the environment
•	Adjust the environment and processes to the person, rather than expecting the person to conform to existing structures
•	Provide privacy and home-like environments in treatment settings
• Interpersonal with person	
•	Accept previous decisions that the person made for him/herself related to scope of care, such as those outlined in living will or similar documents
•	Promote autonomy and control, such as can be safely maintained by the person
•	Preserve dignity and a sense of self in the person
•	Empathize with the frustrations of everyday life
•	Tailor activities to person's previous interests, hobbies and personality traits
• Engagement with family and/or informal caregivers	
•	Counsel caregivers and family members to individualize responses to ongoing and evolving needs, and to recognize when their stress or burden levels are impacting on their interactions.