

Apathy in the older adult

Why you should care

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Apathy is a common problem in older adults. The Greek word *pathos* refers to passions. Apathy, then, refers to a lack of interest, pleasure, or emotion. The most widely accepted definition is loss of motivation or interest. Patients with apathy lose initiative and drive for their usual activities. They complain of inability to finish tasks. Families report patients as showing loss of concern for daily events or even personal care, which can be disconcerting to them. Despite these issues, patients appear emotionally absent or unconcerned.

Marin proposed specific criteria for the apathy syndrome along three dimensions: goal-directed behavior, cognition, and emotional reactions.¹ He emphasized that the central feature is diminished functioning “not attributable to intellectual impairment, emotional distress, or diminished level of consciousness.”²

Although it is clear that apathy exists as a distinct syndrome, in geriatric patients it most often presents as a co-morbid feature of other conditions. For example, 40 to 50% of Alzheimer patients develop apathy in the early and intermediate stages.³ Apathy was found to be the predominant feature in 32% of non-demented, geriatric patients diagnosed with clinical depression.⁴ It also is commonly found in patients after

strokes,⁵ Parkinson’s disease,⁶ and numerous other medical conditions. Presence of apathy is associated with poor response to treatment of the co-morbid conditions, as well as increased caregiver burden.

Identifying apathy in a clinical setting can be challenging since there are many potential causes of decreased levels of activity in older adults (eg, medical issues, sensory impairment, medications). Depression and cognitive impairment also rob patients of their ability to engage in their usual activities of interest and must be considered in the differential diagnosis. Nevertheless, the predominant symptom in apathy is loss of motivation. By its very nature, however, apathy prevents patients from bringing up such issues with providers. Family members usually are the first to raise concerns. Thus, identification of apathy requires careful assessment of older patients for various medical problems, depression, and cognitive impairment; keep in mind that family members often provide the best insight into such changes in the patient’s behavior.

Case Study

Mr. M is a 78-year-old married Caucasian male who came to the office with his wife to be evaluated for depression. Over the past six months, his wife of 48 years and other family members have noticed changes in the behavior of Mr. M, who is a retired retail store owner. The symptoms began after the patient had by-

pass surgery and were attributed to a slow recovery. However, his behavioral changes persisted and grew worse in the past three months. His family reports that Mr. M. also may have some memory problems. They also describe some spells over the past year that are suggestive of transient ischemic attacks.

Mr. M has become quite sedentary and uninvolved in decisions. Compared to his former level of activity, the family also describes instances of Mr. M becoming more irritable over seemingly insignificant issues. This clearly represents a change in his cognitive style and personality. He lacks interest in his usual hobbies of golf and playing cards. He has a history of type 2 diabetes, atrial fibrillation, and obstructive sleep apnea. His medications include digoxin, furosemide, metformin, and aspirin; he uses CPAP.

On interview, he describes a lack of get-up-and-go and inability to initiate activities. He acknowledges that he is less active than he used to be, but honestly denies feeling depressed or anxious. He appreciates the fact that his wife is bothered by this change in him, but cannot offer reasons why his behavior remains unchanged. He is not dysphoric, anxious, or labile. His self-attitude appears intact. Indeed, he is rather matter-of-fact about the reason for the visit. His physical examination does not reveal any acute process. His movements are relatively slow, though not frankly parkinsonian. His recall of current

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events appears relatively normal for his age, though he has trouble with a few details. There is no frank short-term memory loss, aphasia, or apraxia. His MMSE score is 26. His head CT reveals lacunae in the right basal ganglia and pons. All other laboratory tests are normal.

Discussion

This case is rather typical for a presentation of apathy in a geriatric patient. It often is intermixed with elements of depression and cognitive impairment. Evidence suggesting mild depression is his irritability. However, his self-attitude is intact; he is not pessimistic or hopeless, nor does he feel he is a burden to others. Moreover, most of the irritability is short-lived and usually in the context of when his wife is trying to get him motivated, rather than a pervasive change in mood. In terms of his mood and affect, his loss of motivation and interest are the most prominent features.

In addition, Mr. M appears to have some mild cognitive impairments indicated by his mildly lowered MMSE score and missing details on recall of current events. This can be difficult to differentiate from normal aging, but the fact that he ran his own retail store suggests a relatively high premorbid intellectual functioning. He certainly has risks for small vessel ischemic disease and the head CT is suggestive of subcortical lesions. The parkinsonian features also suggest significant subcortical damage capable of interfering with cognition.

Recent studies indicate that subcortical vascular disease produces a “vascular depression” in geriatric patients.⁷ This depression is associated with mild cognitive impairments, particularly in executive functions. Executive function refers to the ability to plan, organize, and initiate goal-directed behaviors. Patients with “vascular depression” often have a mixture of depressed mood, loss of interest and motivation, and slowed or mildly impaired cognition. Indeed, studies have

Table Medications used to treat apathy and dosing schedules in the older adult*

Medication	Dose range for use in older patient (mg/d)
Stimulants	
methylphenidate HCl†	5 to 20
d-amphetamine	5 to 10
modafinil	200 to 400
Dopamine agonists	
amantadine HCl	50 to 300
bromocriptine mesylate	2.5 to 4.0
levodopa	100 to 800
bupropion HCl	200 to 450
Acetylcholinesterase inhibitors	
donepezil HCl	5 to 10
rivastigmine tartrate	6 to 12
galantamine HBr	16 to 24
NMDA-receptor antagonist	
memantine HCl	5 to 15

*Before prescribing any agent, check for possible Black box warnings, investigate possible drug-drug interactions, review potential adverse events, and verify dosing recommendations.

†Note Black box warning for drug dependence.

*Created for Geriatrics by William B. Orr, PhD, MD

found that apathetic patients usually have deficits in executive functioning.⁸ Loss of executive functioning is very difficult to assess in a typical office

Vascular dementia is associated with mild cognition impairments, particularly in effective function

visit, although it is an important clue for identifying apathy. Again, collateral information from family members as to loss of organizational or planning abilities is often essential. For example, the inability to accomplish

chores or hobbies because the patient cannot seem to plan or get organized is an important clue. Neuropsychological testing also can be helpful in this regard, especially when trying to determine the presence of other cognitive impairments or even early dementia. Quick screening for deficits in short-term memory (eg, recall of three items) and language (eg, listing farm animals in 30 seconds) are very useful starting points for assessing cognition. Deficits in multiple domains are suggestive of a dementia. Loss of planning and organizational skills suggests executive functioning deficits and should be considered highly correlated with apathy and “vascular depression.”

Treatments

Although there are few controlled trials for treatment of apathy, most experts agree that the primary pharmacologic treatments are stimulants such

Take Home points


- Apathy is loss of motivation or interest resulting in decreased activity levels.
- Apathy is extremely common in older adults, although it is usually associated with depression and dementia. The overlapping symptoms make the differential diagnosis especially difficult.
- Apathy is associated with loss of executive functioning, which is difficult to assess and often requires family input.
- Pharmacologic treatments of choice are stimulants and dopaminergic agonists. Non-pharmacologic interventions include education and support of the caregiver.

as methylphenidate and dopaminergic agonists such as amantadine (table). Nevertheless, because of the tremendous overlap and co-morbidity with depression, patients with suspected apathy are often started on an antidepressant. SSRI-type antidepressants often are the best tolerated and usually chosen first. However, providers should be aware that SSRIs have been noted to produce apathy symptoms in some patients. Bupropion is often used instead since it has a reputation for stimulant-like properties and is believed to work via the dopaminergic system.⁹

If patients do not respond to an adequate trial of an antidepressant, a stimulant is tried either alone or in combination with the antidepressant. Short-acting stimulants such as methylphenidate, 5 to 10 mg in the morning and at noon are usually tried first. Side effects to monitor include increased irritability, weight loss, or sleep disturbance. If patients respond to the stimulant, but experience side

effects, the physician may wish to prescribe a longer-acting stimulant, such as modafinil or amphetamine, which may be better tolerated in low doses. Published case reports detail treating apathy and related executive dysfunctioning with dopaminergic agonists such as bromocriptine¹⁰ and amantadine.¹¹ Providers should be mindful, however, that stimulants and dopaminergic agonists are not effective agents by themselves for treating depression. Therefore, care must be used in making the appropriate differential diagnosis.

Recent evidence suggests that the acetylcholinesterase inhibitors may be useful in treating apathy associated with dementia. Several authors report improvement in a range of dementia-related behaviors, including apathy, and suggest that such agents work by improving executive functioning in patients.¹² Theoretically, other medications that enhance cognition also may be effective in treating apathy. One published report describes the use of memantine (an NMDA-receptor antagonist approved for Alzheimer's disease) in a demented patient with apathy.¹³

One significant treatment option for apathy is the use of psychotherapy and psychoeducation. Often patients and their families fail to recognize apathy's role in the patient's behavior, resulting in significant stress for all involved. Family members struggle with how far to "push" their loved one in an effort to get him or her motivated, which can result in conflict or guilt. It is important to teach how loss of motivation can affect decision making and behavior. Analogous to dementia syndromes, apathy can cause family members to take on the caregiver's role. They must, therefore, learn the skills necessary to deal with the symptoms and avoid burnout. 

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