

## Agitation and Dementia

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**Abstract :** Agitation is a state of mental excitation with ineffective motor activity that varies from mild restlessness to very pronounced uncoordinated movements. It can be caused by organic causes, psychotic, inorganic and non-psychotic disorders. It is important to point out that although there is a correlation between agitation and violent behavior, the vast majority of people who express agitation are not violent. The therapeutic procedure for agitation must be aimed at determining the cause of its occurrence, and only then, depending on the cause, certain therapy is carried out. Hospitalization of the patient is necessary only in cases where agitation is very pronounced why it comes to an imminent danger of violent behavior or suicide attempt.

**Keywords:** Agitation, Dementia, Alzheimer's disease, Eldelry.

### 1. INTRODUCTION

Inappropriate behaviors, or agitation, in the elderly are of great concern [1]. These behaviors have a direct impact on the elderly person's caregivers as well as a direct and indirect impact on the elderly person him- or herself. Moreover, these behaviors may also indicate the person's internal experiences. Although there is universal consensus about the importance of these behaviors, controversies exist around many of the issues related to problem behaviors, including the domains included in and the etiology of these behaviors.

There are several reasons for differentiating between agitated behaviors and related constructs. First, the different constructs assessed in the instruments mentioned may have different relationships to agitated behaviors. For example, delusions and hallucinations may cause some agitated behaviors by introducing an unrealistic reality; in contrast, depressed affect may result from the same cause as the agitated behavior, such as when undetected pain may cause both repetitive vocalizations and depression. A different relationship is sometimes present between sleep and agitation in which lack of sleep and ensuing fatigue prompt a person to move restlessly, which in turn exacerbates the need for sleep; this process may continue for a while in a vicious circle. A second reason for differentiating between agitated behaviors and related constructs stems from the fact that many of the related constructs describe internal emotional states, such as depression or anxiety, and their assessment for

persons with advanced dementia may pose additional difficulties.

Explosive and violent behavior has long been associated with focal brain lesions, as well as with diffuse damage to the central nervous system (CNS) [2]. Irritability and/or aggressiveness are major sources of disability to individuals with brain injury and sources of stress to their families. Agitation that occurs during the acute stages of recovery from brain injury can endanger the safety of the patients and their caregivers. Agitation may be predictive of longer length of hospital stay and decreased cognition. Subsequently, low frustration tolerance and explosive behavior may develop that can be set off by minimal provocation or occur without warning. These episodes range in severity from irritability to outbursts that result in damage to property or assaults on others. In severe cases, it may be unsafe for affected individuals to remain in the community or with their families, and they often are referred to long-term psychiatric or neurobehavioral facilities. Therefore, it is essential that all psychiatrists be aware of neurologically induced aggression and its assessment and treatment so that they can provide effective care to patients with this condition and to their families.

### 2. ETIOLOGY

The importance of determining the etiology of problem behaviors lies not only in a deeper understanding of these behaviors but also in the immediate implications for treatment or

prevention of the behaviors [1]. Those who believe the behaviors result directly from brain dysfunction through disinhibition or direct neurological activation of certain behaviors (e.g., screaming) are more likely to seek pharmacological solutions. Those who attribute the behaviors to learning through differential reinforcement (e.g., behavior as a request for attention may be reinforced because attention is only given when the patient manifests the behavior) are likely to use a change in contingencies (e.g., reinforcing appropriate behavior and ignoring inappropriate behavior) and other behavioral interventions. Others have suggested that problem behaviors in people with dementia may result from overstimulation that the patient cannot process because of his or her cognitive incapacity. Researchers who embrace this approach study the effect of an environment with reduced stimulation. The opposing view—that problem behaviors result from understimulation and sensory deprivation—has also been proposed, and the treatment approach for this etiology involves either increasing the level of stimulation for the patient and ensuring that the type of stimulation can be processed (i.e., that it is matched to the individual's abilities and deficits) or accommodating the self-stimulatory behavior emitted by the patient.

Generally, there is consensus that behavioral problems are related to cognitive impairment, but lower levels of some behaviors are also manifested in people who do not have dementia. The relationship between problem behaviors and stage of dementia varies across each syndrome. Physically aggressive behavior is more likely to be manifested by individuals with severe cognitive impairment. Physically nonaggressive behavior tends to increase in prevalence with the deterioration of cognitive functioning. Verbally nonaggressive behavior increases in the early stages of dementia and then either increases to middle levels or plateaus and decreases in the end stages of dementia. Verbally aggressive behavior, like physically aggressive behavior, tends to increase only in the late stages of dementia, although generally earlier than physically aggressive behavior.

The term dementia, which from a neurological point of view is synonymous with mental deterioration and which better than the latter corresponds to international taxonomic criteria, identifies both the disease and its main symptom [3], ie the acquired and definitive loss of cognitive functions, serious enough to interfere with the activities of daily life. In detail,

dementia is characterized by a set of deficits that involve all cognitive aspects; in it the memory, orientation, learning ability, video-spatial perception, language, constructive practice and even higher executive functions such as planning, organization and sequencing are classically compromised.

### 3. REGIONS

In patients with AD, behavioral symptoms usually emerge some time after cognitive impairment, suggesting that there is a secondary degenerative process in brain regions remote from the initial site of damage [4]. A region of the forebrain known as the extended amygdala has received considerable attention as a potential substrate for many neuropsychiatric disorders and is likely to undergo later degeneration or deafferentation in AD. This region, which forms a ring around the basal ganglia and internal capsule, includes the shell of the accumbens, nucleus basalis of Meynert, central nucleus of the amygdala, and bed nucleus of the stria terminalis. Through its connections with the orbitofrontal and temporal association cortices, hippocampus, hypothalamus, and periaqueductal gray, it is ideally situated to integrate autonomic, endocrine, and somatomotor aspects of emotional and motivational states.

### 4. ALZHEIMER'S DISEASE

Alzheimer's disease (AD) accounts for 60% of dementia in the elderly [5]. Of the elderly, 4 million currently suffer from this disease, and the prevalence is expected to climb to 14 million by 2050. About 1,000 elderly adults are diagnosed daily with AD. The prevalence rate is 1% for individuals ages 60 to 64 years and doubles every 5 years to reach 40% by the age of 85 years.

Patients usually are apathetic and have impairment of recent memory and some preservation of remote recall memory. Patients lose the ability to perform previously learned complex tasks such as balancing a checkbook, handling money, and reading street maps. They also lose the ability to reason, plan activities, hold complex conversations, and play games such as bridge or chess. Except in the very early stage, patients lose insight into their cognitive problems and deny or ignore their presence. Thus patients may get lost driving their car or walking about in their own town. Some patients experience unexpected periods of agitation, anger, and abnormal sexual activity. As the disease progresses, apraxias become more

evident with the inability to dress, prepare a meal, or groom. Meals are often forgotten and patients may become malnourished. Surprisingly, language function is maintained until late, so patients often can carry out simple “cocktail party” conversations yet cannot discuss current events. As the disease progresses, patients lose the ability to recognize close friends, carry out meaningful conversations, and keep track of time and place.

Nearly 10% of AD occurs in association with vascular dementia. Vascular dementia is characterized pathologically by widespread white matter changes presumably from ischemic brain injury, and multiple infarcts. Clinically, vascular dementia is identified by a tendency for a stepwise progression of dementia.

The clinical or presumptive diagnosis of AD is based on an insidiously progressive decline in intellect, especially recent memory and executive functioning, beginning after age 50 years. This progresses over several years to a global dementia, including loss of insight and judgment as well as behavioral changes. No other medical causes of dementia should be present.

For the purpose of making a diagnosis, clinicians focus in their assessments upon impairment in memory and other cognitive functions, and loss of independent living skills [6]. For carers and, arguably, for people with dementia, it is the behavioural and psychological symptoms of dementia (BPSD) that are most relevant. Nearly all studies indicate that BPSD are an important cause of caregiver strain. They are a common reason for institutionalization as the family’s coping reserves become exhausted. Problem behaviours may include agitation, aggression, calling out repeatedly, sleep disturbance (day–night reversal), wandering and apathy. Common psychological symptoms include anxiety, depression, delusions and hallucinations. BPSD occur most commonly in the middle stage of dementia. Despite their significance, there has been relatively little research into BPSD across cultures. One might anticipate that cultural and environmental factors could have a strong influence upon both the expression of BPSD and their perception by caregivers as problematic. Behavioural and psychological symptoms appear to be just as common in dementia sufferers in developing countries. In some respects the developing country caregivers were more disadvantaged. Given the generally low levels of awareness about dementia as an

organic brain condition, family members could not understand their relative’s behaviour, and others tended to blame the carers for the distress and disturbance of the person they were looking after.

### 5. DIAGNOSIS

The noncognitive abnormalities that most commonly accompany Alzheimer’s disease (AD) are behavioral abnormalities, mood disorders, and psychotic phenomena [7]. Behavioral problems are a well-recognized complication of the progression of dementia. The most frequently reported behavioral problem is agitation, and the most frequently noted examples of agitation are restlessness; wandering; pacing; hitting or kicking; disrobing; screaming; repetitive unwarranted questions, requests, or statements; and verbal aggression. Agitated behavior is a multidimensional, complex concept in terms of assessment and intervention. Agitation is a highly heterogeneous syndrome, both phenomenologically and etiologically. During evaluation of patients with AD, it is important to look for the presence of agitation and a possible apparent cause. More specific antecedents to agitation include psychiatric disorders. In elderly patients, agitation may be exhibited in affective disorders, such as agitated depression, bipolar disorder, and involuntal depression. Agitation also may be exhibited in various types of psychoses such as schizophrenia and paraphrenia, which has its onset in late life. In the early stages of the dementing illness, the patient can still make meaningful gestures or responses; however, in the advanced stages, the significance of agitation is much more inconspicuous, making an appropriate diagnosis more difficult.

### 6. PSYCHOTHERAPY

Agitation in patients with dementia not only affects the quality of life for both the patients and their caregivers but agitation is considered by most family caregivers to be their most serious problem [8]. However, dementia per se does not explain the heterogeneity we see in the etiology and manifestation of agitated behaviors. In fact, agitation appears to involve a complex interaction of cognitive, affective, behavioral, interpersonal, and environmental components. Clinical interventions should address agitation’s multifaceted nature.

Although pharmacological advances have significantly improved treatment strategies, agitation remains largely an issue of

management. Psychotherapy is one intervention that has frequently been overlooked as an adjunctive means of helping patients with Alzheimer's disease (AD), family members, and professional staff manage agitation.

Psychotherapy has increasingly gained recognition as an important and effective treatment modality for many medical conditions. For example, the use of supplemental psychotherapy to improve outcomes in patients with chronic illnesses such as cancer and cardiac disease is well documented. Although the relationship between psychotherapy's curative factors and their impact on medical illness remains unclear, such interventions can be effectively used to maximize coping skills, address the emotional issues that inevitably accompany the disease, and reduce stress levels that tend to exacerbate the primary illness or produce psychiatric comorbidity. Despite the demonstrated efficacy of psychotherapeutic interventions in managing patients with chronic illnesses, however, there has been a paucity of systematic studies of such nonpharmacological treatment approaches to patients with AD.

According to most published guidelines, the use of psychotropic medication to manage behavioral symptoms in dementia should be considered as a last resort, especially in older persons [9]. Their use should be limited to the treatment of psychosis or severe and persistent agitation when these symptoms cause suffering, pose a danger, or interfere with needed care. Foundation for this precautionary stance is predicated on evidence regarding increased risk of significant adverse effects in older adults that range from sedation to an increased incidence of cerebrovascular events and death.

Despite a lack of evidence, the off-label use of antipsychotic agents is becoming routine in treating agitation and psychosis in persons with dementia. Although some clinicians believe that the risks for adverse effects may be lower with atypical antipsychotic agents such as quetiapine and risperidone as compared to a conventional agent such as haloperidol, the limited available evidence does not convincingly support this claim. In fact, because of the paucity of data and limitations of existing studies, there is currently no consensus as to which antipsychotic agent is preferred when treating persons with dementia who are exhibiting problematic behaviors. Other medications (e.g., benzodiazepines, antidepressants, mood stabilizers, cholinesterase inhibitors) have also been used to treat

problematic behaviors demonstrated by persons with dementia, but clinical trials that support these approaches are also lacking.

## 7. MANAGEMENT

Behavioral symptoms associated with dementia such as physical and verbal aggression, mood disturbances, psychotic symptoms, agitation, resistance to care, and sleep disorders are common and distressing for both individuals with dementia and their caregivers [10]. Behavioral symptoms are also commonly referred to as behavioral disturbance, behavioral and psychological symptoms of dementia (BPSD), and neuropsychiatric symptoms. While behavioral symptoms are frequently time limited, it is estimated that almost all individuals with dementia will develop them at some point during the course of their illness. Additionally, the majority of individuals with dementia will require non-pharmacological and/or pharmacological interventions in an attempt to decrease or eliminate these behaviors.

Pharmacologic management of behavioral symptoms among individuals with dementia has been minimally effective and is fraught with significant risks, such as, falls, fractures, delirium, parkinsonism, stroke, pneumonia, and death. The International Association of Gerontology and Geriatrics, the Center for Medicare and Medicaid (CMS), and the National Alzheimer Project Act (NAPA) advocate for the use of non-pharmacologic interventions as first line treatment in the management of behavioral symptoms, seek to minimize psychotropic medication use among individuals with dementia, and call for high quality research and education on non-pharmacologic strategies for the management of these symptoms. Additionally, the American Psychiatric Association (APA) and the American Association for Geriatric Psychiatry (AAGP) strongly support the use of non-pharmacological interventions in all individuals with dementia through published treatment guidelines and position statements.

Following traumatic brain injury, families, caregivers, and medical nursing personnel report that the major stress they experience following TBI is aggressiveness on the part of the patient [11]. Initially following brain injury in the neurosurgical intensive care unit or rehabilitation facility, agitation is the most frequent accelerated behavior following TBI. Agitation is most frequent in the first two weeks of hospitalization following brain injury and



generally resolves slowly over time. In the subacute phase of recovery, restlessness is common, and it may appear within two months, persisting as long as 4–6 weeks. Within the acute recovery period, agitated behaviors are reported in one-third to two-thirds of patients. The prevalence figures for aggression show such variance that they have little use in prediction. It must be assumed that many individuals following TBI will in fact become aggressive.

### 8. NEUROSCIENCE

Cognitive and affective neuroscience have yielded important insights into the neurobiological underpinning of our capacity for practical and moral reasoning [12]. Experiments involving human subjects undergoing functional magnetic resonance imaging (fMRI) scans while engaged in cognitive tasks have established correlations between brain states and the mental states that figure in our deliberation and decision making. Neuroimaging has shown that the desires, beliefs, emotions, and intentions that issue in actions are mediated by interacting cortical and subcortical networks in the brain. This has resulted in a better understanding of some aspects of the brain-mind relation.

Some cognitive neuroscientists and psychologists claim that our understanding of the relation between the brain and behavior implies that mental functions can be completely explained in terms of unconscious mechanistic processes in the brain. This suggests that the source of our actions is not within our conscious control and that our mental states have no causal role in producing them. Free will consists in the capacity to initiate and execute plans of action. This involves the capacity to respond to reasons and to choose in accord with our mental states by controlling how they issue in our actions. It also implies that our actions have an impact on events in the world. But if we are not the source of our actions and our mental states are causally inert, then our idea of conscious free will is an illusion. Furthermore, if free will is an illusion, then no one can be responsible for his or her actions or omissions, since responsibility usually rests on the assumption that we have free will.

### 9. CARING

Physicians learn to depersonalize demented patients because they subconsciously equate the loss of intellect with the loss of personhood [13]. As a consequence of their loss of their personhood, the medical subculture has coined a

lexicon of pejorative, cynical, and insulting names for demented patients, the most common of which is “gomer.” Referring to a patient as a gomer reveals the depth of depersonalization; that is, the patient is no longer a person, she is now a gomer. A gomer no longer possesses the inherent privileges of personhood, namely, human respect and dignity. Therefore, a gomer can be ignored, abused, ridiculed, and neglected. A necessary corrective to this disturbing and insulting depersonalization is to constantly re-emphasize the person behind the illness who deserves our respect, care, and devotion.

Physicians should adjust their therapeutic goals to caring for the demented patient. According to the model of chronic disease management, “care” requires the physician to attend to the seemingly minor and uninteresting details of the patient’s life and health. Some clinicians complain that such an approach resembles the objectives of nursing more than those of medicine.

Practical measures of chronic care of the demented patient include careful attention to the maintenance of satisfactory bowel function, peaceful sleep, and adequate dietary intake; correction of urinary incontinence; and compassionate control of agitation. Nursing home staff should permit the patient to keep familiar articles from home in her room and allow her to maintain her own schedule to the fullest extent compatible with institutional policies. For patients living at home, safety is a key objective, particularly around stairs and in the kitchen and bathroom. Patients, whether living at home or in an institution, should be permitted to exert as much control over their lives as possible in keeping with their safe and proper care. Increasing the level of control demented elderly patients exert over their lives improves their physical and psychological status in addition to providing humane benefits.

### 10. CONCLUSION

Agitation is often in demented patients and frequently takes the form of wandering, yelling, and aggression. It is thought to be a reflection of subjective suffering and is associated with risks to the patient and an increase in caregiver burden. The term refers to an aroused state of the individual, followed by motoric anxiety, fear and narrowness. Speech anxiety can also occur. It is considered the body's natural response to stress caused by its strongest stress effect. In other words, the condition described is revealed by the impact of stressors or psychological

trauma. In individuals, this phenomenon occurs as a result of intense fear or sudden changes in the environment that surrounds the person. Among the factors that cause agitation, it is possible to distinguish increased physical effort, accumulated fatigue, excessive stress. Affective state attacks are often caused by pharmacopoeial drugs, high alcohol consumption, caffeine, and psychotropic substance addiction.

### REFERENCES

- [1] Cohen-Mansfield, J. (2003.): „Agitation in the Elderly - Definitional and Theoretical Conceptualizations“ in Hay, D. P.; Klein, D. T.; Hay, L. K.; Grossberg, G. T.; Kennedy, J. S. (eds): „Agitation in Patients with Dementia - A Practical Guide to Diagnosis and Management“, American Psychiatric Publishing, Inc., Washington, USA, pp. 1. – 9.
- [2] Silver, J. M.; Yudofsky, S. C.; Anderson, K. E. (2005.): „Aggressive Disorders“ in Silver, J. M.; McAllister, T. W.; Yudofsky, S. C. (eds): „Textbook of Traumatic Brain Injury“, American Psychiatric Publishing, Inc., Washington, USA, pp. 259.
- [3] Sghirlanzoni, A.; Genovese, U. (2012.): „Guida alla valutazione medico-legale del danno neurologico (Guide to the medico-legal assessment of neurological damage)“, Springer-Verlag Italia, Milan, Italy, pp. 20.
- [4] Porsteinsson, A.; Loy, R.; Tariot, P. N. (2003.): „Neurochemistry of Agitation“ in Hay, D. P.; Klein, D. T.; Hay, L. K.; Grossberg, G. T.; Kennedy, J. S. (eds): „Agitation in Patients with Dementia - A Practical Guide to Diagnosis and Management“, American Psychiatric Publishing, Inc., Washington, USA, pp. 46.
- [5] Davis, L. E.; King, M. K.; Schultz, J. L. (2005.): „Fundamentals of Neurologic Disease“, Demos Medical Publishing, Inc., New York, USA, pp. 117. – 119.
- [6] World Health Organization (2006.): „Neurological Disorders - Public Health Challenges“, World Health Organization, Geneva, Switzerland, pp. 42. – 43.
- [7] Webster, J.; Grossberg, G. T. (2003.): „Differential Diagnosis of Agitation in Dementia - Delirium, Depression, Psychosis, and Anxiety“ in Hay, D. P.; Klein, D. T.; Hay, L. K.; Grossberg, G. T.; Kennedy, J. S. (eds): „Agitation in Patients with Dementia - A Practical Guide to Diagnosis and Management“, American Psychiatric Publishing, Inc., Washington, USA, pp. 67. – 68.
- [8] Lott, L.; Klein, D. T. (2003.): „Psychotherapeutic Interventions“ in Hay, D. P.; Klein, D. T.; Hay, L. K.; Grossberg, G. T.; Kennedy, J. S. (eds): „Agitation in Patients with Dementia - A Practical Guide to Diagnosis and Management“, American Psychiatric Publishing, Inc., Washington, USA, pp. 103. – 104.
- [9] Martin, G. A.; McCarthy, M. (2011.): „Managing Behavior Problems Associated With Advanced Dementia“ in Martin, G. A.; Sabbagh, M. N. (eds): „Palliative Care for Advanced Alzheimer's and Dementia - Guidelines and Standards for Evidence-Based Care“, Springer Publishing Company, LLC, New York, USA, pp. 75.
- [10] Galik, E. (2016.): „Treatment of Dementia: Non-pharmacological Approaches“ in Boltz, M.; Galvin, J. E. (eds): „Dementia Care - An Evidence-Based Approach“, Springer International Publishing Switzerland, Cham, Switzerland, pp. 97.
- [11] Granacher, jr., R. P. (2008.): „Traumatic Brain Injury - Methods for Clinical and Forensic Neuropsychiatric Assessment, Second Edition“, CRC Press, Taylor & Francis Group, Boca Raton, USA, pp. 80. – 82.
- [12] Glannon, W. (2011.): „Brain, Body, and Mind - Neuroethics with a Human Face“, Oxford University Press, Inc., Oxford, UK, pp. 41.
- [13] Bernat, J. L. (2008.): „Ethical Issues in Neurology, Third Edition“, Wolters Kluwer, Lippincott Williams & Wilkins, Philadelphia, USA, pp. 359. – 360.

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