## **Psychological and Behavioral Disorders in Dementia**

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The psychological and behavioral symptoms of dementia (BPSD) are the most worrisome symptoms because they significantly affect the patient and his/her family or main caregivers. However, they are classically the symptoms that have received less attention. Specifically, BPSD include a variety of manifestations, such as physical aggressiveness, shouting, restlessness, agitation, erratic wandering, hyperactivity, culturally inappropriate behaviors, sexual disinhibition, abuse, inappropriate language, following another person around, etc. (Finkel, 1998). In fact, this symptomatology has a high degree of frequency and is present in at least 50 to 90% of patients (Steele, Rovner, Chase & Folstein, 1996; Mega, Cummings, Fiorello & Gornbein, 1996). Nevertheless, there is great variability in the percentages published, which shows the difficulty of estimating their prevalence.

BPSD have great repercussions because they cause a lot of problems for the patient and his/her family and social environment. They represent one of the consequences of the disease that produce the greatest disability, and one of the greatest threats to co-existence and the daily life of the family. They hinder the patient's autonomy and lead to frequent medical visits and admissions in emergency services and healthcare institutions. They have a decisive influence because they reduce the patient's quality of life and his/her level of functional autonomy (Burgio, 1996), which leads to a decided reduction in the quality of life of the caregivers, increasing their stress. Thus, the caregivers of people with dementia suffer the consequences of these types of symptoms the most. Therefore, these symptoms become an important source of depression and desperation in caregivers (Cummings, 1996), producing a large number of consultations with General Practitioners and becoming one of the main reasons for the institutionalization of AD patients (Mohamed, Rosenheck, Lyketsos & Schneider, 2010; Lyketsos et al., 2010).

It is important to highlight that there is great heterogeneity in the appearance of these behavioral symptoms, given that not all patients present the same alterations, and they will not always appear in the same stages of the disease or increase linearly as the disease progresses (Reisberg, Franssen, Sclan & Kluger, 1989).

Behavioral problems have different causes and origins: a. Medical causes that lead to behavioral problems (medications, the sensory deficits, comorbidity with other diseases, situations of dehydration, constipation and other physiological causes such as hunger, sleepiness, or physical discomfort (for example, headache, dizziness ...) can produce a strong feeling of distress and cause the person to behave in an irregular way. b. Causes is related to the environment. At times, certain aspects or stimuli in the environment can produce some uncertainty, stress, or confusion in the patient. For example, very large and/or untidy spaces, too much stimulation, or a lot of activity in the environment (music while talking, too many people around, etc.), an excess or lack of decorative elements, furniture and lighting (too much furniture, mirrors, etc.) and unfamiliar environments can interfere with orientation, creating more confusion. People with dementia need a set routine and daily structure because environments without routines and disorganized surroundings can give rise to certain behavioral disorders. Also, there are causes related to the task

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because certain characteristics can cause some problem situations, for example: a complicated task, an unfamiliar task, too many tasks to do, etc. Causes related to communication. People with dementia often become angry or agitated because they do not understand what is expected of them, or they get frustrated because they cannot make themselves understood. These difficulties in communication and adaptation to their surroundings arise because there are hidden or unsatisfied needs (These needs are often not detected by caregivers, or they do not know how to respond to them, for example: sensory deprivation, boredom...) (Miranda-Castillo et al., 2010), due to behavioral learning (reinforcement systems), greater vulnerability to the environment, or less adaptation to stressful situations (This vulnerability arises because patients gradually lose their ability to adapt to their surroundings or cope with a situation of stress, perceiving the environment as stressful and threatening).

The evaluation and diagnosis of the BPSD is carried out through observation and interviews with the patient and his/her caregivers. In addition, instruments such as the Behavioral Pathology in Alzheimer's Disease Rating Scale (BEHAVE-AD) (Reisberg et al., 1987) and the neuropsychiatric inventory (NPI) (Cummings et al., 1994) can be quite useful.

For treatment, non-pharmacological therapies, specifically behavioral interventions, are usually the treatment of choice for BPSD, and although there are few results in the literature supporting its efficacy, a set of actions have been identified that integrate psychosocial and medical perspectives and respond to a coordinated and established plan. However, when these types of disorders are more serious, behavioral intervention is combined with pharmacological treatment. In practice, professionals should at least know about the essential components of the care management plan, promoting interactions between the parties involved in an agile and comfortable way for the person with dementia and the caregiver.

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