

# The importance of cognitive assessment in the management of psychiatric disorders

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## Summary

**The rationale of this article is to emphasize the importance of cognitive assessment in the management of psychiatric syndromes. Many studies have investigated and have clearly shown the existence of cognitive dysfunction in most of the psychiatric disorders. These deficits occur with different severity which seems to trace a dimensional continuum between the various clinical manifestations. Cognitive impairment is not merely a result of the damage caused during the time by the psychiatric symptoms but an integral part of the disorder itself. The alterations of different cognitive domains found in mental illnesses are often detectable as prodromal symptoms of the disease, showing indirectly a predisposition to the later development of the disorder, particularly schizophrenia. Considering that cognitive impairment is not only a feature of schizophrenia but also of affective psychoses and bipolar disorder, some authors have suggested using the cognitive impairment as an endophenotype.**

**Moreover, cognitive assessment is essential for the formulation of effective strategies capable also of recovery of cognitive functions through structured and specific rehabilitative strategies.**

*KEY WORDS: cognitive impairment, cognitive assessment, psychiatric disorders, management, endophenotype.*

For many years the scientific community has neglected the existence of cognitive dysfunction in psychiatric disorders, regardless Bleuler, a century ago, elaborated an interpretative model of studies regarding cognitive impairment. He stated that the primary deficits of elementary cognitive functions are determinants of thought disorder observed in schizophrenia (1). Subsequently, a later hypothesis considered cognitive deficits as secondary to low motivation, thought disorders, perceptual disturbances, functional impairment resulting from positive symptoms and iatrogenic effects of hospitalization (2).

Recently, many studies have investigated and have clearly shown the existence of cognitive dysfunction in most of the psychiatric disorders. In particular, most of them have explored the impairment of several cognitive domains in patients with Axis I diagnosis according to DSM-IV-TR and their indirect consequences on quality of life. These deficits occur with different severity, which seems to trace a dimensional continuum between the various clinical manifestations. In particular, cognitive dysfunction has been recognized as a cardinal feature of schizophrenia, which is often detectable years before the first psychotic episode showing indirectly a predisposition to the later development of the disorder (3). At this point, many authors agree, that cognitive dysfunction should be considered as a prodromic feature of schizophrenia (4). In fact, some evidence exists that the combination of symptomatic ultra-high risk (UHR) criteria and the basic symptom criterion "cognitive disturbances" (COGDIS) improves the clinical prediction of psychosis (5). Thus, the psychotic basic symptom of an early "atmosphere" of a subtle cognitive decline (COGDIS) resembles the concept of the subject cognitive impairment (SMI) in individuals with subsequent dementia. From a clinical point of view, as in the case of Alzheimer's disease, this subtle cognitive impairment precedes the mild cognitive impairment characterized by neurocognitive scores outside the normal range.

Another interesting datum is the constant presence of a cognitive dysfunction in bipolar disorder patients even during the euthymic phase (6). Considering that cognitive impairment is not only present in schizophrenia but also in affective psychoses and bipolar disorder, some authors have suggested to use the cognitive impairment as an endophenotype (7). In fact, working memory might be a possible endophenotype. It is primarily located at the dorsolateral prefrontal cortex (DLPFC). Spatial working memory is im-

paired in people with schizophrenia and to a lesser extent in their relatives (8). Imaging studies of people with schizophrenia performing working memory tests have revealed a DPFC reduced activity. In this area, also, post-mortem examinations of affected patients have observed several abnormalities (9, 10). Only recently, in addition to the positive, negative and disorganized dimensions, we have been able to recognize cognitive impairment as a fourth psychopathologic dimension in schizophrenia. Therefore, cognitive impairment presents in many psychiatric disorders, it's not merely a result of the damage caused during the time by the primary symptoms but an integral part of the disorder itself. If we take in consideration patients with dual diagnosis, the issue becomes more difficult since the basal cognitive impairment of a certain psychiatric disorder is enhanced by the negative effects of the substance of abuse. Considering the importance of this topic and the huge scientific data in its support appears surprising the lack of adequate recognition of these aspects in DSM-5. The rationale of the assessment of cognitive functions in the management of the psychiatric disorders has relevance primarily in the diagnostic phase, since the diagnostic process could be misguided by the cognitive dysfunction of these patients. Consider, for example, as might be falsified the use of self rating scales used for the evaluation of the severity of the symptoms and for diagnosis classification. It's logic to presume that if the patient presents difficulty concentrating, attentional bias with easy distractibility or short term memory problems, then the accuracy of the test results is distorted regarding to its content and construct validity. Therefore, it is possible that the patient confounds the periods or symptoms just because of cognitive disorders. Moreover, cognitive assessment is essential for the formulation of effective strategies capable also of recovery of cognitive functions through structured and specific rehabilitative strategies. In fact, quality of life is negatively influenced by cognitive deficits and this might determine a relapse of the psychiatric symptoms and also of the substance abuse habits. For these reasons, putting a correct neuropsychological assessment in the rehabilitation process means not only to improve the prognosis but also treatment compliance. Of note, deficits of prospective memory attempt the patient capacity to manage independently their pharmacological therapy, forgetting to take the treatment at the right moment. At the same manner, dysfunctions of the executive functions pre-

dominant in psychotic disorders might harm social skills, learning capacities and also learning from aversive experiences like the case of disorders related to the substance abuse. In light of this, perhaps it would be appropriate to reassess and modify some rehabilitation approaches in order to improve them. Consider, for example, occupational rehabilitation in chronic patients and the use of adversative drugs for alcoholics and heroin addicts. For the above reasons, being aware of this pathologic dimension of psychiatric disorders is imperative. Specific training in this area for psychiatrists and psychologists is a must.

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