Inclusion of cognitive impairment in the DSM diagnosis of schizophrenia: if not now, when?

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An increasing bulk of evidence indicates that neurocognitive impairment is one of the core symptoms of schizophrenia (1,2). The question therefore is not whether this should be included as one of the diagnostic criteria for schizophrenia, but when and how this inclusion should occur.

One of the foremost experts in the field, Richard Keefe, proposes that the presence of neurocognitive impairment should be included in the DSM-V diagnostic criteria for schizophrenia. The essence of the suggested criterion is a

consistent and severe impairment in cognitive functioning as well as a significant decline from premorbid levels. The acceptability of this criterion would be partly based on its sensitivity and specificity, which Keefe has made a case for through the demonstration of the boundary or "point of rarity" between schizophrenia and other related disorders. Although much more data would be needed to evaluate the validity of this criterion, there are still compelling reasons for it to be included in DSM-V. It would make clinicians more aware of the presence of this component and its impact on the functioning of the patient independent of the psychotic symptoms. It would likely lead to a more comprehensive assessment, management and prognostication. Although cognitive impairment is not a *sine qua non* of schizophrenia, as there may be a subgroup who does not show clinically relevant cognitive deficits (3,4), the structure of DSM could easily accommodate this, since most of the disorders in the manual are defined polythetically (5).

The devil is in the details of what constitutes the core neurocognitive deficits and how they can be assessed. The term "cognitive functioning" is all-encompassing and includes a wide range of information processing, memory, attention, and language functions. Studies based on neuropsychological tests have suggested that patients with schizophre-

nia generally fall into three cognitive subtypes: generalized impairment, executive dysfunction, and memory dysfunction (1,6,7). These domains require neuropsychological testing by trained assessors. Even with a brief battery which could be learnt by clinicians, as suggested by Keefe, transcultural variability in normative data is a relevant issue.

Cognitive impairment is already part of the diagnostic criteria for Alzheimer's dementia, where clinical judgement has been found to be quite accurate when following the DSM-IV criteria (8). However, cognitive symptoms have been explicitly described in relation to functioning, while this connection between cognition and functional outcome is lacking in the criterion proposed by Keefe. There is a large body of research demonstrating a clear association between impaired cognition in schizophrenia and community functioning as well as acquisition of certain skills (9). Although the correlations between performance on individual cognitive domains and functional outcomes are generally moderate, and real-world functional outcomes may be influenced by affective symptoms, motivational and environmental and societal factors (10), it would not be inappropriate to include descriptions of some effects of cognitive impairment on social and vocational functioning, which would facilitate clinical assessment.

The DSM-IV has been criticized for not being researcher-friendly (11,12), and various proposals have been made to rectify this in the DSM-V (13-15). The inclusion of the cognitive impairment criterion would enhance the already considerable ongoing research in this area. The "official" recognition that this is a fundamental and characterizing aspect of schizophrenia would facilitate the approval and labeling process of drug regulatory bodies like the Food and Drug Administration in the US, which in turn would attract more investment from the pharmaceutical industry for research in developing cognition-enhancing drugs (16). For the criterion to be useful to researchers, however, it would have to be more precise and with explicit guidelines for reliable assessment (17).

It is time to include the criterion of cognitive impairment in DSM-V, but it will have to be in such a way as to optimize its clinical and research utility.

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