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Letter to the Editor

Comparing delusional disorder and schizophrenia: a comment on Hui *et al.* (2015)

We read with interest the article by Hui *et al.* (2015) entitled 'Delusional disorder and schizophrenia: a comparison of the neurocognitive and clinical characteristics in first-episode subjects'. This first-episode study compared demographic, clinical and cognitive variables in 71 subjects with DSM-IV delusional disorder and 71 age-matched subjects with schizophrenia. The authors concluded that there were no significant differences between the two groups in premorbid functioning, symptom severity, neurocognitive performance, treatment or functioning. The discussion was focused on comparing the study's results with those in the literature, but the authors failed to comment on their main finding, namely that delusional disorder and schizophrenia did not differ in their main clinical features or neurocognitive performance.

According to DSM-IV, unlike subjects with schizophrenia, those with delusional disorder present with delusions and no other psychotic features such as hallucinations (except olfactory and tactile ones related to the delusional theme), negative or disorganization symptoms. Furthermore, psychosocial functioning is not meaningfully impaired in delusional disorder, apart from the impact of delusions. Hence, by definition, delusional disorder and schizophrenia must necessarily differ in these clinical features, even taking into account putative cultural factors. Unfortunately, the methods applied in this study were – in our view – inappropriate for addressing the main aim of the study. We will present four arguments to support this statement.

First, the study design was age-matched, which may have introduced bias in the control (schizophrenia) group. Matching has a substantial impact on a study sample, most notably, it creates a sample of controls that is not representative of exposure in the population. The effect of the matching variable can no longer be studied directly, and the exposure frequency in the control sample will be shifted towards that of delusional disorder cases. The consensus in the literature indicates that there are very few circumstances where individual matching is warranted, and methodologists stress that in practical situations (e.g. when controls are excluded), an unmatched design is likely to be less biased, since it is often possible for confounders to be *adjusted for* in the analysis (Rose & van der Laan, 2009).

Second, a first-episode sample is not the most appropriate for comparing among categories of psychotic disorders in terms of external variables because of the lack of diagnostic stability. For example, recently Heslin *et al.* (2015) reported that the 10-year prospective consistency (the proportion of cases receiving a diagnosis at baseline that retains the diagnosis at follow-up) of a DSM-IV diagnosis of delusional disorder was 19%, and that 57% of baseline diagnoses of delusional disorders changed to schizophrenia at follow-up.

Third, in contrast to what was stated by the authors, their study's design precludes the recruitment, not only adolescent-onset schizophrenia, but the bulk of schizophrenia cases. According to a recent study by Nowrouzi *et al.* (2015), by including subjects with schizophrenia aged $\geqslant$26 years, the authors may have excluded 77% of schizophrenia cases.

Fourth, many of the data provided are inconsistent with clinical lore or data in the literature. These include: (*a*) the 1:2 ratio of delusional disorder to schizophrenia in the parent study, (*b*) the (virtual) lack of co-morbid substance abuse, personality disorders and mood disorders in both delusional disorder and schizophrenia cases, (*c*) the extremely low scores for positive, negative and general symptoms in the schizophrenia group, more specifically, negative and positive symptoms other than delusions were in the range from absent to doubtfully present, and (*d*) these low symptom scores notably contrasting with the level of occupational and social functioning in the two diagnostic groups.

To summarize, the contribution of Hui *et al.*'s study to our knowledge of the differences/similarities between delusional disorder and schizophrenia is marginal at best. More specifically, the schizophrenia group appears to be composed of subjects with minimal symptoms and relatively good outcome, and the delusional disorder group by subjects with predominantly delusional symptoms waiting for diagnostic confirmation at follow-up assessment. Furthermore, considering that most diagnoses of first-episode delusional disorders change to schizophrenia, the authors may actually have compared two groups mostly comprising schizophrenia cases. In view of these considerations, it is not at all surprising that the two groups did not differ in their main clinical and neurocognitive characteristics.

Declaration of Interest

None.

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