Signs and symptoms of acute mania: a factor analysis

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Abstract

Background

The major diagnostic classifications consider mania as a uni-dimensional illness. Factor analytic studies of acute mania are fewer compared to schizophrenia and depression. Evidence from factor analysis suggests more categories or subtypes than what is included in the classification systems. Studies have found that these factors can predict differences in treatment response and prognosis.

Methods

The sample included 131 patients consecutively admitted to an acute psychiatry unit over a period of one year. It included 76 (58%) males. The mean age was 44.05 years (SD = 15.6). Patients met International Classification of Diseases-10 (ICD-10) clinical diagnostic criteria for a manic episode. Patients with a diagnosis of mixed bipolar affective disorder were excluded. Participants were evaluated using the Young Mania Rating Scale (YMRS). Exploratory factor analysis (principal component analysis) was carried out and factors with an eigenvalue > 1 were retained. The significance level for interpretation of factor loadings was 0.40. The unrotated component matrix identified five factors. Oblique rotation was then carried out to identify three factors which were clinically meaningful.

Results

Unrotated principal component analysis extracted five factors. These five factors explained 65.36% of the total variance. Oblique rotation extracted 3 factors. Factor 1 corresponding to 'irritable mania' had significant loadings of irritability, increased motor activity/energy and disruptive aggressive behaviour. Factor 2 corresponding to 'elated mania' had significant loadings of elevated mood, language abnormalities/thought disorder, increased sexual interest and poor insight. Factor 3 corresponding to 'psychotic mania' had significant loadings of abnormalities in thought content, appearance, poor sleep and speech abnormalities.

Conclusions

Our findings identified three clinically meaningful factors corresponding to 'elated mania', 'irritable mania' and 'psychotic mania'. These findings support the multidimensional nature of manic symptoms. Further evidence is needed to support the existence of corresponding clinical subtypes.