Developing valid models of psychopathology experienced by adults with intellectual disabilities

Statistical modelling has been shown to be useful to empirically define dimensional models of psychopathology in the general population. These have improved validity compared to the categorical models of psychopathology that tend to be used in clinical practice. However, psychopathology modelling studies involving participants with learning disabilities have used flawed statistical methods. This novel study used statistical modelling to derive and validate a dimensional model of psychopathology experienced by learning disabled adults. Best practice exploratory factor analysis (EFA) methods were used to extract a potential model of psychopathology from a dataset of psychopathology data collected using the Psychiatric Present State-Learning Disabilities (PPS-LD). The validity of the models was then examined using confirmatory factor analysis (CFA) in a separate dataset. The correlations between dimensions were also examined. A clinically interpretable model of psychopathology with five dimensions had the best fit to the PPS-LD data. Based on the item loadings, the five dimensions were labelled depressive, anxiety, cognitive decline, affect dysregulation-problem behaviour (AD-PB) and psychosis. Since only two psychosis items were included in the analyses and could not be rated for 41% of participants, the psychosis dimension was less stable than dimensions 1-4. Whilst distinct, there were moderate-strong correlations between all the dimensions, particularly the AD-PB, depression and anxiety dimensions. The model is more valid than current standard classifications (DSM-V and ICD-10) which do not even include problem behaviours which are common, and so it should lead to improved diagnostics in clinical care and in research. The AD-PB factor is of considerable clinical relevance and may lead to better informed treatment choices. Future research should extend the use of statistical methods to model changes in psychopathology over time.

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