Oslo universitetssykehus

Psychopathology in Autism Checklist (PAC)
Screening checklist for psychiatric symptoms in adults with autism

Introduction for health professionals

The Psychopathology in Autism Checklist (PAC) is a screening checklist, completed by caregivers, designed to identify adults with autism and ID in need of psychiatric services. The PAC is not a diagnostic instrument but a tool to aid the diagnostic process. Individuals who obtain high scores on the PAC should be referred for a comprehensive psychiatric examination.

The PAC is rated by informants with detailed knowledge of the individual, such as primary carers or family members. However, the interpretation of the ratings should be performed by professionals in specialised health services who are familiar with autism, ID and psychiatric disorders.

The PAC was developed in collaboration between the Psychiatric Department for Adults with Intellectual Disability and Autism and the Autism Unit, Oslo University Hospital.

Diagnosing psychiatric disorders in this group is complex. An accurate diagnostic assessment depends on distinguishing between symptoms that represent the autistic condition and symptoms that indicate additional psychiatric conditions. Thus, the diagnostics should be based on identification of qualitative "changes" in the individual's long-standing features of autism, the presence of conventional psychiatric symptoms, and the recognition of idiosyncratic or atypical symptoms. It is important to co-operate with the family and others who know the person well, in order to obtain information on well-being or uneasiness, changes in premorbid or typical patterns of behavior and mood, and to provide information on idiosyncratic or atypical symptoms.

Description

The PAC comprises 42 items distributed across 5 subscales; *psychosis* (10 items), *depression*, (7 items), *anxiety disorders* (6 items), *obsessive-compulsive disorder* (OCD) (7 items) and *general adjustment problems* (12 items). Thirty items represent symptoms assessed as specific to one of four major psychiatric disorders and not to autism. Twelve items are assessed as indicators of general problems often observed in individuals with adjustment problems and/or psychiatric disorders; e.g. sleep disturbances, self-harm, irritability, passivity, and restlessness.

In the first validation study (Helverschou, Bakken & Martinsen, 2009), the PAC was found to discriminate between adults with autism and ID with and without psychiatric disorders, and to a certain extent between individuals with different psychiatric disorders, especially psychosis and OCD. The psychometric properties, i.e. internal consistency computed by Cronbach's α and inter-rater agreement computed by Cohen's Kappa were also acceptable.

Using the Rating Scale

Items are presented in random order. It is important that the informants are blind to which subscale each of the items belongs. The items describe a broad spectre of possible problems and symptoms. Not all items will be relevant to all individuals, but it is important that the informants rate all the items. Each item is assessed on 2 domains: "Extent of problems" - addresses the current extent of problems (1 = no problem; 2= minor problem; 3= moderate problem; 4 = severe problem). "Change from usual behavior" - addresses whether the

behavior has changed in relation to premorbid or typical patterns of behavior (Worsened, Unchanged, and Improved).

Some of the items describe phenomena that are not directly observable. Even if it is difficult, it is desirable that the informant attempts to give an opinion on whether or not the item is relevant to the target individual. Such considerations are particularly difficult in relation to individuals without spoken language. However, clinical experience indicates that people with thorough knowledge of the target individual are able to make such interpretations correctly.

Interpreting the ratings
The interpretation of the ratings should be performed by professionals in specialised health services familiar with both autism and ID, and psychiatric disorders.

Procedure: The values of the rating scale range from 1 to 4 (1 = no problem; 2= minor problem; 3= moderate problem; 4 = severe problem). Cut-off values for psychiatric disorders and severe general adjustment problems have been established based on the results of the PAC validation study. General Adjustment problems (GAP) 12 items - cut-off ≥2.0 = severe adjustment problems; Psychosis 10 items - cut-off ≥2.3; Depression 7 items - cut-off ≥2.0; Anxiety disorders 6 items - cut-off ≥1.8; OCD 7 items - cut-off ≥2.4

A two-step procedure secures identification of individuals with a possible psychiatric disorder. First, individuals with *severe general adjustment problems* are identified, i.e. average GAP score above cut-off. Thereafter, those individuals who obtain an average score above cut-off for any of the psychiatric subscales are classified as suspected as having a psychiatric disorder. They should be referred to a comprehensive psychiatric examination.

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