The diagnostic validity of mental health diagnoses in children

Christopher C Pearson

We must take heed of as many factors as possible when forming a diagnosis

The Short Report by Whitely and colleagues in this edition of the Journal[1] raises the question of the diagnostic validity of mental health diagnoses in children, which, unlike diagnoses in adults, are complicated by the additional factor of continuing mental and physical development.

The diagnosis of attention deficit hyperactivity disorder (ADHD) requires a clinical review of the child, collecting evidence from multiple sources for a problem affecting the child's performance, and applying a diagnostic checklist, such as that provided by the Diagnostic and Statistical Manual (DSM) of the American Psychiatric Association.[2] This checklist has been operationalised in the Conners Comprehensive Behavior Rating Scales,[3] which provide a score for the likelihood of the diagnosis of ADHD.

Despite the efforts to achieve objectivity, there are several subjective elements in this assessment. These include the ability of the parent to provide an accurate history of the child's behaviour, the behaviour of the child in the consulting room, and the bias of the assessor. The next area of variability is the attitude of the informants who complete the parent and teacher rating scales, including whether they support or oppose the diagnosis. Clinicians and others who work in this area will at times notice a significant divergence between the views of the child's parents, particularly if they are separated; one parent, for instance, may gloss over behavioural deviations, seen by others as affecting the child's developmental performance and social acceptance by the child's peer group, with comments that he is "just being a boy".[4]

A further factor is the child's response to medication. Good medical practice demands that the risks and benefits of medication be comprehensively discussed with the parents before starting treatment. The decision to commence medication should never be taken lightly, and a detailed discussion of the potential side effects is needed before commencing treatment. As with most mental health diagnoses, there are no objective tests for securing the diagnosis or monitoring the effectiveness of treatment. When a response to medication seems sustained, the effect can be tested by withdrawing the drug; if there is a distinct deterioration in performance, this should be taken as evidence for the effectiveness of treatment.

As ADHD is defined according to DSM criteria, we must consider the reliability of such a diagnosis. The DSM, now in its fifth revision (DSM-5), is not without its critics, particularly with regard to its reliability; that is, the reproducibility of a diagnosis by different clinicians examining the same patient.[5] One measure of this reliability is Cohen's kappa coefficient, a numerical value for the likelihood of two clinicians making the same diagnosis; a value of 1 indicates total inter-rater concordance, while 0 means the probability of agreement is no greater than chance. Kraemer and colleagues have discussed the reliability of diagnoses according to DSM-5 criteria, and they are prepared to accept a kappa value of 0.2 to 0.4 as "acceptable".[6] This does not engender great confidence when undertaking studies such as that described by Whitely and his co-authors.[1]

Where do my musings bring us in the real life situation of the consulting room? I can but suggest that we take heed of as many factors as possible when forming a diagnosis, and that we have a careful discussion with the parents before initiating treatment. Should we recommend medication, it should be viewed as a trial looking for clear evidence of benefit; and if side effects occur, they should not outweigh the benefits when we evaluate the response of the child. Finally, the period of treatment should be limited, and medication re-commenced only should there be evidence of clinical deterioration following its withdrawal.[7]

Competing interests: No relevant disclosures.

Provenance: Commissioned; externally peer reviewed. ■

1 Whitely M, Lester L, Phillimore J, Robinson S. Influence of birth month on the probability of Western Australian children being treated for ADHD. *Med J Aust* 2017; 206: 85.

2 American Psychiatric Association. *Diagnostic and statistical manual of mental disorders. DSM-5.* Washington, DC: American Psychiatric Publishing, 2013.

3 Conners CK. Conners CBRS. Conners Comprehensive Behavior Rating Scales [website]. http://www.mhs.com/product.aspx?gr=edu&id=overview&prod=cbrs (accessed Nov 2016).

4 Stein MT, Diller L, Resnikoff R. ADHD, divorce, and parental disagreement about the diagnosis and treatment. *Pediatrics* 2001; 107 Suppl 1: 867-872.

5 Thomason TC. Criticisms, benefits, and limitations of the DSM-5. 2014. https://works.bepress.com/timothy_thomason/117/download/ (accessed Nov 2016).

6 Kraemer HC, Kupfer DJ, Clarke DE, et al. DSM-5: how reliable is reliable enough? *Am J Psychiatry* 2012; 169: 12-13.

7 National Health and Medical Research Council. Clinical practice points on the diagnosis, assessment and management of attention deficit hyperactivity in children and adolescents. Canberra: Commonwealth of Australia, 2012. https://www.nhmrc.gov.au/guidelines-publications/mh26 (accessed Nov 2016). ■

Women's and Children's Hospital, Adelaide, SA. chris.pearson@health.sa.gov.au ▪ doi: 10.5694/mja16.01265 ▪ See Short report, p. 85