Is clinic prevalence of ICD-10 hyperkinesis underestimated?

Impact of increasing awareness by a questionnaire screen in an UK clinic

Abstract Hyperactivity is common, but its diagnosis is still controversial, with two contending approaches: ADHD from DSM IV and hyperkinesia from ICD-10. The concept of ADHD predicts higher rates, but its use may lead to overmedication. Hyperkinesis usefully indicates medication, but clinics using it may detect many fewer cases, raising the possibility of underdiagnosis. It has never been shown whether this lower rate results from hyperkinesis’ criteria, or to the differing methods used to detect hyperactivity in those centres that prefer it. We report a mirror study, examining rates of all types of hyperkinesia before and after the introduction of a preliminary screen (not originally intended to detect hyperkinesia). Its introduction resulted in an increase of detected hyperkinesia from 2% to 25% of the clinic sample with no change in diagnostic criteria. This was independent of any other change in the sample or clinic staff. We conclude that insensitive assessment may be responsible for low rates of diagnosis of ICD-10 hyperkinesis in secondary care clinics.

Key words Hyperkinesis – ADHD – assessment – prevalence – child adolescent psychiatry

Introduction

Which behaviour disordered children should receive stimulants? This apparently simple question remains controversial, while prescribing rates rise steadily (5, 7, 8, 10, 11, 13). One source of confusion is the existence of competing diagnostic guidelines for determining clinically significant hyperactivity. It is generally accepted that the DSM IV concept of ADHD identifies more patients that the ICD-10 concept of hyperkinesia. However, not all are likely to need specific treatment (15). Conversely, children with hyperkinesia will typically need specific treatment, including medication (12) but there is a persistent impression that use of hyperkinesis is associated with underdiagnosis of the condition (7, 9). This impression has not been specifically investigated. We therefore report a study of the effect of a screening
questionnaire in a typical UK secondary referral clinic, which unintentionally led to a marked increase in the detection of hyperkinesis among its referrals.

Method

The parental Child Behavior Checklist (CBCL) (1) was introduced as a preliminary postal assessment to help determine which clinic referrals might be initially directed to therapists with less advanced diagnostic skills employed as part of a waiting list initiative (4). Many more CBCLs than expected suggested possible hyperactivity, and so the Conners 48-item Child Behavior Scale (2) was sent as a second screen to those scoring positive for hyperactivity on the CBCL. Those scoring positive on both were seen for a diagnostic assessment under the supervision of DMP, the purpose of which was to exclude hyperkinesis according to ICD-10 (Clinical Descriptions and Diagnostic Guidelines) criteria (16). The method of assessment was that usually employed by the clinic. It included history, examination, descriptive and structured school reports, with extended clinic observation if the initial examination was inconclusive. Specialised assessment packages for hyperactivity were not introduced. Prior to the introduction of the screen, the clinic had professed no special interest in hyperactivity (3), and had used ICD-10 diagnostic criteria since their introduction in 1992.

Subjects and sampling

The sampling frame covered the two years either side of the introduction of the CBCL/Conners screen in April 1995. Two sets of case-notes were identified. The first set included past and current cases diagnosed using ICD-10 criteria, which were first seen by the clinic before the introduction of the screen. The second set also comprised past and current cases with ICD-10 diagnoses, which were seen after the screen’s introduction. Both sets were obtained by collecting files meeting these criteria in alphabetical order. Time and resource constraints limited each sample to approximately 100 cases.

Measures

The subtypes of hyperkinesis described in ICD-10 (Simple disturbance of activity and attention, hyperkinetic conduct disorder, and the residual categories) were combined into a single category, henceforth called “hyperkinesis.” The main instrument for coding the case-notes was the multiaxial version of ICD-10 (17). This enabled a detailed coding of psychosocial difficulties and disability, as well as syndromes. Other data included referral source, assessor, family structure, the emotional tone of school reports, and “false positive” hyperactivity scores on the questionnaires. Five diagnostic classes (no significant symptomatology, behaviour disorders, emotional disorders, mixed disorders, and other disorders) were derived from ICD-10 diagnoses if present, or from CBCL scores if these were available, but no ICD-10 diagnosis had been made. All hyperkinetic cases were classed as behaviour disorders. Cases that were seen before the introduction of the screen but diagnosed hyperkinetic after its introduction were specifically identified, because the introduction of the screen might have increased general awareness of hyperkinesis.

Procedures

A coding sheet was developed to record the data abstracted from the files by DF. Clinical diagnoses were recorded directly from the notes when indicated by ICD-10 code, diagnostic name or clear synonym. MP, who had not been involved in any of the original diagnoses, inspected all case-notes that were assigned a diagnosis of hyperkinesis. To confirm a diagnosis, MP had to identify records of observations describing the disorder – not opinions, interpretations or reports through intermediaries – in all the settings (home, school and clinic) investigated. Three levels of agreement were defined: Insufficient information to be confident about agreement or disagreement; sufficient information with disagreement; or sufficient information with agreement. BM undertook a similar role with psychosocial categories.

Analysis

Conventional univariate and bivariate statistics were supplemented with appropriate exact tests if the criteria for asymptotic interpretation were not met. Hierarchical log-linear analysis was used to test whether bivariate categorical relationships identified were independent of each other. Statistical software used included SPSS for Windows (7.5.1), supplemented by StatXact-3 for Windows for exact tests.

Results

Data on 201 cases were collected. Sample characteristics are given in Table 1. Variables with more than