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Case definitions for common mental health disorders among adolescents using electronic primary care data: a comparison with self-reported data from ALSPAC

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Objectives

Rates of common mental disorders may be increasing among children and adolescents, though evidence of this is mixed. Symptom questionnaires in population surveys may overestimate clinical disease. Conversely, lower participation of individuals with mental disorders may lead to underestimates in surveys. Clinical databases may have greater population coverage and contain information of more obvious clinical validity; however, several factors, including the help-seeking behaviour of individuals and the recording practices of clinicians, may influence burden-of-disease estimates based on these databases. The aim of the current investigation was to compare case definitions of common mental disorders (CMD) using linked electronic primary care data to definitions derived from self-reported data obtained in an observational study.

Approach

We studied 1,562 adolescents who had completed the Revised Clinical Interview Schedule (CIS-R) in the Avon Longitudinal Study of Parents and Children (ALSPAC) at age 17-18 years and had linkage established to their electronic primary care records for at least 6 months after the time they completed the CIS-R. We used lists of Read codes corresponding to diagnoses, symptoms and treatment to create twelve definitions of CMD and also of depression alone. We calculated sensitivities and specificities of these, using CIS-R case definitions as the reference standard. All analyses were carried in Stata 13.0.

Results

Sensitivities ranged from 5.2% to 24.3% for depression and from 3.8% to 19.2% for CMD. The specificities of all definitions were above 98% for depression and above 96% for CMD. For both

depression and CMD, the definition that included current diagnosis, treatment or symptoms identified the highest proportion of cases.

Conclusion

Most individuals meeting case definitions for CMD based on information in clinical records also met CMD case definitions based on symptoms reported in a contemporaneous survey. Conversely, many individuals identified as CMD cases based on reported symptoms had no evidence of CMD in their clinical records. A small number of individuals with CMD recorded in their clinical records had not reported symptoms of this in the survey. Overall, these data suggest that clinical databases are likely to yield underestimates of the burden of CMD in the population. Clinical records appear to yield highly valid diagnoses of common mental disorders which may be useful for studying risk factors and outcomes of these conditions. The greatest epidemiological value is likely to be obtained when the combination of information from both survey and clinical records is possible.

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