CRD summary
This review evaluated the methods used for diagnosing depression in adolescents. It concluded that primary care professionals may improve their rates of depression diagnosis through training and the use of adolescent symptom rating scales. Given the limitations of the review, the results should be viewed with caution.

Authors' objectives
To evaluate the methods used for diagnosing depression in adolescents.

Searching
MEDLINE was searched from inception to December 2004; the search terms were reported. The bibliographies of relevant articles were also screened. Only English language articles of screening conducted in English-speaking countries were included.

Study selection
Study designs of evaluations included in the review
Population surveys, service use assessments, and treatment articles that did not describe the mechanism of identification, were excluded.

Specific interventions included in the review
Studies comparing the use of general psychometric screening tools, depression-specific tools, reliance on chief complaints, and the use of parent and/or adolescent interview techniques were eligible for inclusion. The included studies evaluated a range of tools and strategies, which were reported in a table.

Reference standard test against which the new test was compared
Studies that clearly defined their 'gold' standard were eligible for inclusion. The gold standard was considered to be assessment by an experienced mental health professional using a high quality assessment technique and gathering information from multiple informants; a structured interview or other similar method could also be used.

Participants included in the review
Studies of adolescents (older than 10 years) were eligible for inclusion. Populations with specific somatic symptoms, physical illness, other risk factors, or including children under 10 years, were excluded. Studies of patients with general psychosocial issues, psychological distress or suicidal behaviour were included only if depression or mood disorders were specifically examined. Where reported, the age of the participants ranged from 11 to 30 years.

Outcomes assessed in the review
Studies reporting the diagnostic outcome measures of sensitivity, specificity, positive and negative predictive values (PPV and NPV, respectively), or evidence relating to the feasibility, acceptability, cost and outcome for the adolescent, were eligible for inclusion.

How were decisions on the relevance of primary studies made?
The authors did not state how the studies were selected for the review, or how many reviewers performed the selection.

Assessment of study quality
The authors did not state that they assessed validity.
Data extraction
The authors did not state how the data were extracted for the review, or how many reviewers performed the data extraction.

Methods of synthesis
How were the studies combined?
The studies were combined in a narrative and the results of the individual included studies were tabulated.

How were differences between studies investigated?
Details of the studies and their results were tabulated in alphabetical order, by author, and differences between the studies were discussed in the text.

Results of the review
Twenty-nine articles met the inclusion criteria; 24 were assessments of diagnostic performance (n approximately 12,500) and 6 provided information on the methods currently used in primary care practice.

Five studies reported data on the diagnostic performance of psychometric screening tools. Sensitivity ranged from 43 to 91% (4 studies), specificity from 91 to 94% (3 studies), the PPV from 38 to 75% (5 studies) and the NPV from 62 to 98.7% (3 studies); the scale used, reference standard, cut-off points and prevalence of depressive disorder varied between studies.

All 6 studies on the methods currently in use in primary care practice showed that the training of professionals on identification methods resulted in an increase in their ability to identify youths at risk of depression.

Ten studies evaluating ways in which chief complaints can identify adolescents at risk of depression showed that sole reliance on this method resulted in many young people remaining undiagnosed.

Authors' conclusions
The available evidence indicated that primary care professionals would improve their rates of depression diagnosis through training, but even more so by the use of adolescent symptom rating scales.

CRD commentary
The review question was clear, with well-defined inclusion criteria. The search was limited and non-English language publications were excluded, as were English publications of trials from non-English-speaking countries; both language and publication bias may therefore have been present. The authors did not state whether any stage of the review was conducted in duplicate, thus there is a potential for error and bias. Study quality was not assessed and limited study details were available; the impact of the quality of the primary studies upon the reliability of the review findings is therefore uncertain. A large proportion of the diagnostic studies included patients that could not be deemed adolescents, with participants in their twenties; one study included people up to the age of 30 years. Some of the included studies might have been duplicates, reporting results from the same populations, and few studies provided diagnostic performance data. The decision to combine the studies in a narrative seems appropriate. Given these limitations, the results of this review should be viewed with caution.

Implications of the review for practice and research
Practice: The authors suggested that the systematic use of adolescent self-reports may be a useful diagnostic aid for identifying depression. However, their use in paediatric primary care to identify adolescent depression cannot, at present, be endorsed or repudiated. The authors also stated that reliance on chief complaints is insufficient.

Research: The authors suggested that further research to inform paediatric professionals about valid and feasible methods to identify adolescent depression, and whether such identification will improve patient outcomes, is required.
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Record Status
This is a critical abstract of a systematic review that meets the criteria for inclusion on DARE. Each critical abstract contains a brief summary of the review methods, results and conclusions followed by a detailed critical assessment on the reliability of the review and the conclusions drawn.