Review: screening instruments had sensitivities of 67–100% and specificities of 53–98% for detecting major depression in older primary care patients

Clinical impact ratings GP/FP/Primary care ★★★★★☆☆ IM/Ambulatory care ★★★★★☆☆ Mental Health ★★★★★☆☆

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Q What is the accuracy of various screening instruments for detecting depression in older adults in primary care?

METHODS

Data sources: Medline and PsycINFO (1966 to January 2002); trial registry of the Cochrane Depression, Anxiety and Neurosis Group; US Preventive Services Task Force *Guide to Clinical Preventive Services* (1996); Agency for Health Care Policy and Research *Clinical Practice Guideline on Depression* (1993); recent systematic reviews; bibliographies; and peer review.

Study selection and assessment: English language studies of depression screening in primary care populations of adults >65 years of age; comparison of instrument with a criterion standard (structured or semistructured diagnostic interviews or independent evaluations by psychiatrists based on *DSM-IIIR* or *DSM-IV, ICD-10*, or Research Diagnostic Criteria); and provision of information on diagnostic accuracy (usually sensitivity and specificity). Exclusion criteria: studies done in psychiatric facilities or clinics or those that retrospectively extracted briefer instruments from original versions of an instrument.

Outcomes: sensitivity and specificity.

MAIN RESULTS

18 studies met the inclusion criteria. Meta-analysis was not done because the studies included multiple screening instruments. 8 different instruments were assessed. The test characteristics of 7 instruments for detecting major depression are summarised in the table. Studies assessing detection of minor or subthreshold depression (Geriatric Depression Scale, Center for Epidemiologic Studies Depression scale, and General Health Questionnaire) reported sensitivities of 39–70% and specificities of 72–82%.

CONCLUSION

Screening instruments had sensitivities of 67–100% and specificities of 53–98% for detecting major depression in older patients in primary care.

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Commentary

The systematic review by Watson and Pignone tells us which diagnostic tools accurately detect late life depression in primary care. Their methodology is robust enough for us to be confident that the 15 item GDS, CES-D, and SelfCARE(D) are reliable instruments, confirming widespread clinical practice in *specialist* settings. The choice of tool lies with the physician, who might sensibly copy local colleagues, especially when referral pathways make the use of common instruments helpful.

Some questions remain unanswered. Do primary care physicians actually use such instruments? Recognition of depression in primary care may occur in different ways.[1] These 3 instruments may have a secondary role of confirming suspected depression in selected patients. Primary care physicians in gatekeeping roles will rightly avoid screening entire subgroups given that evidence to support such use of tools is minimal.

How do we identify and manage the more common forms of subsyndromal depression? The 3 reliable instruments accurately detect only major depression, which affects about 2% of older people. Unfortunately, up to 20% of this group have levels of depressive symptoms below the threshold for diagnosis, yet experience substantial morbidity and loss of function. The diagnostic task of distinguishing depression from dementia is also a problem.

Management options may be more important than reliable diagnosis in influencing the behaviour of primary care physicians. Backward reasoning encourages us to identify only conditions that we can treat. Evidence of effectiveness of interventions for major depression is reasonably good, at least compared with that for minor depression and other depressive disorders of later life,[2] and so the 3 tools are worth including in our diagnostic repertoire.

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1 Andersson SJ, Lindberg G, Troein M. What shapes GPs' work with depressed patients? A qualitative interview study. *Fam Pract* 2002;**19**:623–31.

2 Baldwin RC, Anderson D, Black S, *et al.* Guideline for the management of late-life depression in primary care. *Int J Geriatr Psychiatry* 2003;**18**:829–38.

Test characteristics of 7 instruments for detecting major depression in older adults in primary care

Instrument (number of studies)	Description (cutpoints)	Sens*	Spec*
Geriatric Depression Scale (9)	Primarily 15 items, yes/no format (3–5)	79–100%	67–80%
Center for Epidemiologic Studies Depression scale (5)	20 items ranking symptom frequency (9–21)	75–93%	73–87%
SelfCARE(D) (3)	12 item Likert scale (5)	77–90%	53–98%
Caribbean Culture-Specific Screen (2)	Number of items not reported (5-6)	82–92%	68–79%
Cornell Scale for Depression in Dementia (1)	Number of items not reported (7)	90%	75%
1-question screen (from Mental Health Inventory of the SF-36) (1)	1 item, 6 point scale (2)	67%	60%
Brief Assessment Schedule Depression Cards (1)	Number of items not reported (6)	92%	84%

*Sens = sensitivity, spec = specificity; reported as ranges.