A literature review of the application of the Geriatric Depression Scale, Depression Anxiety Stress Scales and Post-traumatic Stress Disorder Checklist to community nursing cohorts

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CRD summary
This review concluded that the Geriatric Depression Scale predicted depression in community nursing cohorts and the Post-traumatic Stress Disorder Checklist predicted post-traumatic stress disorder in community cohorts; no studies were identified for the Depression Anxiety Stress Scales. The potential for missing studies, poor reporting of review methods and uncertain study quality suggests these conclusions should be treated with some caution.

Authors' objectives
To assess the appropriateness of the Geriatric Depression Scale, Depression Anxiety Stress Scales and Post-traumatic Stress Disorder Checklist for use by community nurses to screen war veteran and war widow(er) clients for depression, anxiety and post-traumatic stress disorder.

Searching
CINAHL, MEDLINE and PsycINFO were searched for published English-language studies from 1980 to February 2006; search terms were not reported. Reference lists of included studies were handsearched for additional studies.

Study selection
Studies undertaken in primary care, or outpatients' clinics, of older adults and/or veterans were eligible for inclusion; studies that focused on specialised groups of participants (e.g. those with cognitive impairment/dementia or existing psychiatric diagnoses) were excluded. Included studies appraised the criterion validity and factor structure of the screening tool; criterion validity studies had to assess the sensitivity and specificity against a structured diagnostic process undertaken by a psychiatrist or psychologist according to accepted standards. Studies in which the accuracy of the measures were used in analysing relationships with other variables were excluded.

The screening tools assessed in included studies were: the Geriatric Depression Scale (GDS), Depression Anxiety Stress Scales (DASS), and Post-traumatic Stress Disorder Checklist (PCL). In the included studies, the mean age ranged from 46.1 to 80 years of age and the proportion of females from 7.27 to 100%, where reported.

The authors did not state how the studies were selected for the review.

Assessment of study quality
The authors did not state that they assessed study quality.

Data extraction
For each study, the sensitivity and specificity for each tool were calculated.

The authors did not state how many reviewers performed the data extraction.

Methods of synthesis
The studies were combined in a narrative synthesis, arranged by screening tool. Differences between studies were discussed in the text. Study details and results were tabulated.

Results of the review
A total of 13 studies (n=6,706 participants) were included in the review.

Geriatric Depression Scale (GDS: eight studies): Four studies (n=293 participants) assessed criterion validity against a diagnosis established via structured clinical interview: for GDS 30 (two studies) sensitivity ranged from 54 to 81% and...
specificity from 61% to 93%; and for GDS 15 (two studies, n=171 participants) sensitivity ranged from 78 to 91% and specificity from 72 to 85%. Four factor analytic studies were included (n=1,907 participants): both GDS 30 and GDS 15 captured features consistent with depression.

**Depression Anxiety Stress Scales (DASS; three studies):** No publications assessed the criterion validity of either DASS 42 or DASS 21 against a diagnosis established via structured clinical interview. Two studies assessed the factor structure of DASS 42, concluding that responses were adequately described by the three factor model where the subscales capture depression, anxiety and stress. One study assessed DASS 21 which found that data captured in DASS 21 was described by a four factor solution for depression, anxiety, stress, and general psychological distress.

**Post-traumatic Stress Disorder Checklist:** Two studies (n=543 participants) assessed the criterion validity in community cohorts of women: sensitivity ranged from 79 to 82% and specificity from 76 to 79%. No studies assessed the factor structure of the Post-traumatic Stress Disorder Checklist.

**Authors’ conclusions**
The Geriatric Depression Scale accurately predicted a diagnosis of depression in community nursing cohorts. The three Depression Anxiety Stress Scales subscales of depression, anxiety and stress are valid; no studies were identified that compared the performance of the Depression Anxiety Stress Scales in predicting diagnoses of depression or anxiety. The Post-traumatic Stress Disorder Checklist predicted post-traumatic stress disorder in community cohorts, although no studies meeting the selection criteria included male participants.

**CRD commentary**
The authors addressed a clear research question supported by appropriate inclusion criteria. The literature search was restricted to three databases, but only studies published in English were included. Therefore, relevant studies may have been missed and the review may have been subject to both language and publication bias. No attempt appeared to have been made to minimise reviewer error and bias for any parts of the review process.

No formal assessment of study quality was undertaken, which made it difficult to assess the reliability of the included data. The decision to combine studies in a narrative synthesis seemed appropriate.

Given the potential for missing studies, poor reporting of review methods and the inclusion of studies of uncertain quality, the conclusions should be treated with some caution.

**Implications of the review for practice and research**

**Implications for practice:** The authors made a number of recommendations for each of the three tools to guide community nurses, managers and health planners in the selection of mental health screening tools to promote holistic community nursing care.

**Implications for research:** The authors stated that further research in adults aged over 80 years of age should be undertaken to compare cut-off scores on DASS with other accurate diagnoses of depression and anxiety. Further research is also required to investigate the factor structure of DASS 21 and DASS 42, to replicate these findings prior to application in clinical populations, and to assess the performance of the Post-traumatic Stress Disorder Checklist for screening males and older adults receiving community nursing care.

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**Bibliographic details**
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.