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### Literature search results

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<td>Marilyn Shaw</td>
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### Search details

Recent evidence base for the Middlesex Elderly Assessment of Mental State (MEAMS).

### Resources searched

- NHS Evidence
- TRIP Database
- Cochrane Library
- AMED
- BNI
- CINAHL
- EMBASE
- HMIC
- Health Business Elite
- MEDLINE
- PsychINFO
- Google Scholar
- Google Advanced Search

### Database search terms:

### Evidence search string(s):

### Google search string(s):

### Summary

There are not a lot of references to the MEAMS, and the original work from which it comes, The Middlesex Elderly Assessment of Mental State, Description and Validation by Evelyn Golding, 1989, is not available.

### Guidelines and Policy

Nothing found

### Evidence-based reviews

Nothing on Cochrane
1. The sensitivity and specificity of the Middlesex Elderly Assessment of Mental State (MEAMS) for detecting cognitive impairment after stroke.

**Citation:** Neuropsychological Rehabilitation, March 2005, vol./is. 15/1(55-67), 0960-2011;1464-0694 (Mar 2005)

**Author(s):** Cartoni, A; Lincoln, Nadina B

**Abstract:** The aim of the study was to assess the sensitivity and specificity of the MEAMS (Golding, 1989) for detecting cognitive impairment after stroke. Stroke patients admitted to hospital received a cognitive screening assessment, the MEAMS, and a detailed cognitive assessment. The information obtained from the detailed assessment was summarised in a structured written report. From the conclusions in these reports, patients were classified as "impaired" or "not impaired" in perception, memory, executive function and language. The sensitivity and specificity of the MEAMS subtests and the overall number of tests passed were determined in relation to the presence of impairment, as given in the overall conclusion of the written reports. There were 30 stroke patients, aged 58 to 92 (mean 75.80, SD 7.94) years. Of these, 17 were men and 13 were women. The sensitivity of the MEAMS subtests ranged from 11% to 100% and the specificity ranged from 69% to 100%. The sensitivity of the overall MEAMS score was 52% and the specificity was 100%, using a cut-off score of 3 or more fails to indicate impairment. Three subtests, Orientation, Naming and Unusual views had 81% sensitivity and 50% specificity for detecting problems in language, perception or memory. The MEAMS was not a sensitive screen for overall cognitive impairment or for memory, perceptual, language, or executive function problems after stroke, but it was specific. Although screening for cognitive impairment is important, the MEAMS is not recommended as the sole method, as it produces an unacceptably high false negative rate. Three subtests (Orientation, Naming and Unusual views) had 81% sensitivity and 50% specificity for detecting cognitive problems in language, perception or memory after stroke. (PsycINFO Database Record (c) 2012 APA, all rights reserved) (journal abstract)

**Publication Type:** Journal; Peer Reviewed Journal

**Source:** PsycINFO

**Full Text:** Available from EBSCOhost in Neuropsychological Rehabilitation

2. Reliability and validity of the "Middlesex Elderly Assessment of Mental State" (MEAMS) among hospitalized elderly in Israel as a predictor of functional potential.

**Citation:** Clinical Gerontologist: The Journal of Aging and Mental Health, 2000, vol./is. 21/4(91-98), 0731-7115;1545-2301 (2000)

**Author(s):** Yaretzky, A; Lif-Kimchi, O; Finkelov, B; Karpin, H; Turani-Feldman, T; Shaked-Bregman, Y; Peleg, L; Feldman, J; Spiegel, D; Weinblatt, N

**Abstract:** Examined the reliability & validity of the Middlesex Elderly Assessment of Mental State (MEAMS) in 77 Hebrew speaking Israelis (mean age 79.4 yrs). It was found that the MEAMS had internal reliability (Cronbach alpha of .75) and parallel form reliability. Validity was examined by correlating the MEAMS to established tests such as the Mini Mental State Examination and Clock Completion Test and Functional Independent Measure. The MEAMS correlated with the demographic variables of age and education. (PsycINFO Database Record (c) 2012 APA, all rights reserved) (journal abstract)

**Publication Type:** Journal; Peer Reviewed Journal

**Source:** PsycINFO


**Citation:** International Journal of Geriatric Psychiatry, October 1994, vol./is. 9/10(797-802), 0885-6230;1099-1166 (Oct 1994)

**Author(s):** Husband, Hilary J; Tarbuck, A. F

**Abstract:** Compared the Middlesex Elderly Assessment of Mental State (MEAMS) with the Mini-Mental State Examination (MMSE) in a group of 60 elderly acute psychiatric inpatients (aged 65-86 yrs). Scores on both scales were highly correlated (70%), but the MEAMS was more sensitive in detecting mild cognitive impairment and was more sensitive to the presence of focal brain lesions. Six junior and staff-grade doctors then assessed 5 patients each, using both scales, and rated the scales according to various criteria. Despite taking slightly longer to administer, the MEAMS was rated superior overall by the medical staff. It is suggested that the MEAMS is a sensitive instrument.
acceptable to both patients and staff that is suitable for routine use in an old age psychiatric setting. (PsycINFO Database Record (c) 2012 APA, all rights reserved)

Publication Type: Journal; Peer Reviewed Journal
Source: PsycINFO
Full Text: Available from EBSCOhost in International Journal of Geriatric Psychiatry

4. Performance of stroke patients on the Middlesex Elderly Assessment of Mental State.
Citation: Clinical Rehabilitation, November 1992, vol./is. 6/4(283-289), 0269-2155;1477-0873 (Nov 1992)
Author(s): Shiel, A; Wilson, B. A
Abstract: 38 patients with right-hemisphere (RH) strokes and 17 patients with left-hemisphere (LH) strokes (aged 36-86 yrs) completed the Middlesex Elderly Assessment of Mental Status (MEAMS). Ss’ performance varied according to the side of the lesion. LH Ss were more likely to fail the language-oriented subtests, and RH Ss had more difficulty with visuospatial tasks. LH Ss had higher failure rate on orientation, name learning, naming, and comprehension subtests. RH Ss had more difficulty with spatial tasks and usual views subtests. Results suggest that the MEAMS is useful in screening stroke patients for cognitive impairment. (PsycINFO Database Record (c) 2012 APA, all rights reserved)

Publication Type: Journal; Peer Reviewed Journal
Source: PsycINFO

5. Test-retest reliability of the Middlesex Assessment of Mental State (MEAMS): A preliminary investigation in people with probable dementia.
Citation: British Journal of Clinical Psychology, May 1993, vol./is. 32/2(224-226), 0144-6657;2044-8260 (May 1993)
Author(s): Powell, Theresa; Brooker, Dawn J; Papadopolous, Andrew
Abstract: Examined relative and absolute test-retest reliability of the MEAMS in 12 patients (mean age 78 yrs) with probable dementia and 12 matched controls. Relative reliability was good. Measures of absolute reliability showed scores changing by up to 3 points over an interval of 1 wk. A version effect was in evidence. (PsycINFO Database Record (c) 2013 APA, all rights reserved)

Publication Type: Journal; Peer Reviewed Journal
Source: PsycINFO

6. Assessing normative cut points through differential item functioning analysis: an example from the adaptation of the Middlesex Elderly Assessment of Mental State (MEAMS) for use as a cognitive screening test in Turkey.
Citation: Health & Quality of Life Outcomes, 2006, vol./is. 4/(18), 1477-7525;1477-7525 (2006)
Author(s): Tennant A; Kucukdeveci AA; Kutlay S; Elhan AH
Abstract: BACKGROUND: The Middlesex Elderly Assessment of Mental State (MEAMS) was developed as a screening test to detect cognitive impairment in the elderly. It includes 12 subtests, each having a ‘pass score’. A series of tasks were undertaken to adapt the measure for use in the adult population in Turkey and to determine the validity of existing cut points for passing subtests, given the wide range of educational level in the Turkish population. This study focuses on identifying and validating the scoring system of the MEAMS for Turkish adult population.METHODS: After the translation procedure, 350 normal subjects and 158 acquired brain injury patients were assessed by the Turkish version of MEAMS. Initially, appropriate pass scores for the normal population were determined through ANOVA post-hoc tests according to age, gender and education. Rasch analysis was then used to test the internal construct validity of the scale and the validity of the cut points for passing subtests on the pooled data by using Differential Item Functioning (DIF) analysis within the framework of the Rasch model.RESULTS: Data with the initially modified pass scores were analyzed. DIF was found for certain subtests by age and education, but not for gender. Following this, pass scores were further adjusted and data re-fitted to the model. All subtests were found to fit the Rasch model (mean item fit 0.184, SD 0.319; person fit -0.224, SD 0.557) and DIF was then found to be absent. Thus the final pass scores for all subtests were determined.CONCLUSION: The MEAMS offers a valid assessment of cognitive state for the adult Turkish population, and the revised cut points accommodate for age and education. Further studies are required to ascertain the validity in different diagnostic groups.

Publication Type: Journal Article; Validation Studies
Source: MEDLINE
Full Text: Available from EBSCOhost in Health & Quality of Life Outcomes
7. MMSE, MEAMS and mot making

**Citation:** Journal of the American Geriatrics Society, April 2010, vol./is. 58/(S187), 0002-8614 (April 2010)

**Author(s):** Page N.; Pinkney M.; Majeed A.; Jannine H.

**Abstract:** Introduction. The Mini Mental State Examination (MMSE) is routinely used in the United Kingdom by to assess cognition in older patients. The MEAMS (Middlesex Elderly Assessment of Mental State) is favoured by therapists to assess cognitive abilities in patients undergoing rehabilitation. Methods. As part of routine assessments, MMSE and MEAMS scores were recorded on consecutive patients, aged over 60, admitted to a general rehabilitation ward over an 8 week period. They were performed independently and results were only shared after both tests were completed. When clinically needed only, kitchen assessments were performed by the ward occupational therapist and scored, out of 36, on the ability to make a Mug of Tea (MOT). Results. 55 patients (average age 80.4 years, 33 female) underwent MMSE and MEAMS. 20 had an MOT assessment. MMSE and MEAMS scores, using accepted ranges, are compared in the table. The average time for MMSE and MEAMS was 4.5 and 11 minutes respectively. No patients declined either assessment. Scores for MOT ranged from 18 to 36. Neither MMSE nor MEAMS score was a good predictor of MOT making in the small number assessed in the kitchen. 47 patients eventually returned to their own home. 4 patients went to a nursing home on discharge. Conclusion. Both MMSE and MEAMS can be used in routine clinical practice on rehabilitation wards and results for both are comparable. MEAMS took longer to administer than MMSE and didn't appear to deliver an improvement in our assessment of patients undergoing rehabilitation. Neither was shown to be a good substitute for Occupational Therapist functional assessments nor predicted outcome, although numbers not going home were small. (Table Presented).

**Publication Type:** Journal: Conference Abstract

**Source:** EMBASE

**Full Text:** Available from EBSCOhost in Journal of the American Geriatrics Society

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8. Depression and dementia in geriatric inpatients: Diagnostic comparisons between psychiatrists, geriatricians and test scores

By: Ryan, D. H.; Blackburn, P.; Lawley, D.; Ellis, A.; Musil, J.


Abstract: A clinical and psychometric survey of depression and dementia in acute geriatric admissions (n = 50) found clinical evidence of depression and dementia in 25% and 35% of patients respectively, consistent with the results of prevalence surveys of geriatric hospital inpatients. There was a significant correlation between clinical assessment of dementia by geriatricians, and psychiatrists, and cognitive impairment using the Middlesex Elderly Assessment Memory Schedule (p < 0.01). Although an intercorrelation between clinical diagnosis of depression by geriatricians, psychiatrists and scores on the Geriatric Depression Scale (GDS) just reached significance (p < 0.05), there was no association between diagnosis of depression by geriatricians and GDS at a cutoff score of 11/30. The relationship was significant at a cutoff score of 16/30 (p < 0.02). In contrast, the associations between diagnosis of depression by psychiatrists and GDS were highly significant at both cutoff points (p < 0.002 and p < 0.001 respectively). No significant differences were found between geriatricians and psychiatrists on indications for (1) antidepressant medication, (2) referral to liaison psychiatry, or (3) referral to a community mental health team. None of the inpatients assessed were receiving antidepressant medication at the time of their discharge from hospital although depression was diagnosed in a quarter of all inpatients and geriatricians supported the use of antidepressant treatment in 40% of those cases identified. Factor analysis suggested that geriatricians were identifying a subgroup of patients as depressed who were not recognized either by psychiatrists or by psychometric testing. Patients with abnormal scores on psychometric testing were followed up after discharge and retested.

9. Diagnostic disclosure in dementia: an opportunity for intervention?
Husband, H J


Abstract: Objective . To find out from people with dementia what they were worried about in relation to their diagnosis, and how they changed their behaviour in relation to these worries. Design . Consecutive case series of people with early dementia presenting for neuropsychological assessment. Methods . People's ability to engage in talking about dementia was assessed by asking three standardised questions. Two measures of cognitive function, the MMSE and MEAMS were given to all. Those who could engage were asked two open-ended questions in relation to what they worried about and how learning they had dementia had affected them. Results . The commonest worries related to fear of others finding out, fears of social embarrassment, long term dependency needs and not being listened to. Commonest effects were social withdrawal and hypervigilance for evidence of cognitive failures. Conclusions . People with dementia who know their diagnosis have worries which effect their behaviour in a way likely to result in low self-esteem, self-stigmatisation and impaired quality of life.

10.Cartoni A, Lincoln NB

The sensitivity and specificity of the MEAMS for detecting cognitive impairment after stroke


Abstract The aim of the study was to assess the sensitivity and specificity of the MEAMS (Golding, 1989) for detecting cognitive impairment after stroke. Stroke patients admitted to hospital received a cognitive screening assessment, the MEAMS, and a detailed cognitive assessment. The information obtained from the detailed assessment was summarised in a structured written report. From the conclusions in these reports, patients were classified as "impaired" or "not impaired" in perception, memory, executive function and language. The sensitivity and specificity of the MEAMS subtests and the overall number of tests passed were determined in relation to the presence of impairment, as given in the overall conclusion of the written reports. There were 30 stroke patients, aged 58 to 92 (mean 75.80, SD 7.94) years. Of these, 17 were men and 13 were women. The sensitivity of the MEAMS subtests ranged from 11% to 100% and the specificity ranged from 69% to 100%. The sensitivity of the overall MEAMS score was 52% and the specificity was 100%, using a cut-off score of 3 or more fails to indicate impairment. Three subtests, Orientation, Naming and Unusual views had 81% sensitivity and 50% specificity for detecting problems in language, perception or memory. The MEAMS was not a sensitive screen for overall cognitive impairment or for memory, perceptual, language, or executive function problems after stroke, but it was specific. Although screening for cognitive impairment is important, the MEAMS is not recommended as the sole method, as it produces an unacceptably high false negative rate. Three subtests (Orientation, Naming and Unusual views) had 81% sensitivity and 50% specificity for detecting cognitive problems in language, perception or memory after stroke.

Published Research - Google Scholar

From first fifty results:

G1.Woodford HJ

Cognitive assessment in the elderly
Q J Med, 2007, 100, p469 – 484 (Printed off for you)

G2.Morris RG, Worsley C, Matthews D

Neuropsychological assessment in older people: old principles and new directions
Adv in Psychiatric Treatment, 2000, Vol 6, p362 – 370 (Printed off for you)
G3. Golding, Evelyn


**Published Research - Microsoft Academic Search**