

Clinical and scientific letters

Screening for dementia: single yes/no question or Likert scale?

Dementia is now a major public health issue, but the optimal method of screening for at-risk individuals is unclear.

Government directive, from the Dementia Commissioning for Quality and Innovation (Dementia CQUIN),¹ advocates a single screening question:

*Have you been more forgetful in the past 12 months to the extent that it has significantly affected your life?*²

In an epilepsy clinic, a population of patients with a high frequency of subjective memory complaints, 48% of patients answered this simple memory screening question in the affirmative, suggesting it would have very low specificity and high probability of identifying false positives.²

Since subjective memory complaints (SMCs) may be associated with subsequent cognitive decline, dementia screening might reasonably be focused on this at-risk population. Screening tests for SMCs are available, such as the five-point Likert scale described by Paradise *et al*³ in which participants are asked 'In general, how would you rate your memory?' with a choice of the following five responses: 1 – poor; 2 – fair; 3 – good; 4 – very good; or, 5 – excellent. The scale defines those rating their memory fair or poor (2 or 1) as experiencing SMCs (SMC⁺).³ This Likert scale has been used as a screen for SMCs in diagnostic test accuracy studies of cognitive screening instruments for mild cognitive impairment (MCI), which in some instances is a prodromal stage of dementia.⁴

We administered the SMC Likert scale to 100 consecutive follow-up patients attending a dedicated epilepsy outpatient clinic. Patients were also asked for any examples of their memory problems. Based on Likert scores, groups were categorised as SMC⁺ (n=20) or SMC⁻ (n=80) and compared (*t* tests for continuous variables, chi-squared tests for categorical variables; Table 1).

No difference was found in patient age or seizure type (generalised or partial) between SMC⁺ and SMC⁻ groups. However, there were significant differences in duration of epilepsy and use of antiepileptic drugs (monotherapy versus polytherapy), with longer disease duration and increased frequency of polytherapy in the SMC⁺ group.

All SMC⁺ patients commented on memory issues. No SMC⁻ patient with Likert scale scores of 4 or 5 had any memory-related comment, although all SMC⁻ patients with score of 3 did recount examples of memory problems.

This study found a much lower self-rating of memory impairment using the Likert scale than a previous epilepsy clinic-based study that used a single yes/no screening question (20% versus 48%). The single question study found no statistically significant difference in patient age, seizure type, use of anti-epileptic drugs, or duration of epilepsy (trend) between those answering yes or no to the screening question,² whereas the Likert scale did identify significant differences between epilepsy duration and use of polytherapy between SMC⁺ and SMC⁻ groups, factors likely to be associated with increasing memory impairment.

Using a Likert scale screening question may provide greater diagnostic discrimination than a simple yes/no question, concordant with evidence that longer cognitive screening instruments have greater diagnostic accuracy.⁵ Therefore, we suggest that policy on dementia screening might explore this approach. ■

Conflicts of interest

The authors have no conflicts of interest to declare.

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Table 1. Demographic and diagnostic details of consecutive follow-up epilepsy patients (n=100) administered the SMC Likert rating scale

	SMC ⁺ (n=20)	SMC ⁻ (n=80)	p-value
Age range, years (mean ± SD)	17–73 (42.7±15.1)	17–79 (42.0±16.3)	>0.5
General:partial epilepsy (% general)	10:10 (50.0%)	28:52 (35.0%)	>0.1
Epilepsy duration range (mean ± SD)	1–30 years (14.9±9.4 years)	10 months–59 years (9.34±11.1 years)	<0.05
Monotherapy:polytherapy (% monotherapy)	11:9 (55.0%)	64:16 (80.0%)	<0.05

SD = standard deviation; SMC = subjective memory complaint; SMC⁺ = Likert scale 1 or 2; SMC⁻ = Likert scale 3, 4 or 5

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