COMMENTARY

Is it time to separate subjective cognitive complaints from the diagnosis of mild cognitive impairment?

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Abstract

Subjective cognitive complaints (SCC) are currently considered to be a core feature of mild cognitive impairment (MCI). Yet the implications of including or excluding subjective complaints has not been previously considered. The key questions are how many health people complain of SCC compared to those with MCI? How is the epidemiology of MCI affected by the requirement for SCC? How is the prognosis of MCI influenced by SCC? and how should SCC be defined and measured?

Findings to date suggest that subjective complaints are one of many variables that comprise risk in individuals with MCI. Individuals who do not have subjective complaints and might not qualify under current definitions of MCI may still have a disorder that is of clinical significance. Despite a close association, SCC may be neither necessary nor sufficient for a diagnosis of either MCI or dementia.

Keywords: subjective memory complaints, mild cognitive impairment, dementia, elderly

Subjective cognitive complaints (SCC, also known as subjective memory complaints) refer to everyday concerns cited by people both with and without objective evidence of memory impairment. Such complaints are very common. It was found that 30% of the unimpaired elderly report that they have ‘trouble remembering things that have happened recently’ and a similar number have ‘trouble remembering where belongings are kept’ [1]. From the clinical perspective, there is likely to be an important difference between those who agree that they have slight difficulty on direct questioning and those who actively seek help for memory complaints.

Lately, the importance of SCC has been emphasised by its inclusion as a core feature of mild cognitive impairment (MCI) in recent consensus reports [2, 3]. Despite this apparent consensus, their inclusion remains controversial and many research groups have not used SCC when diagnosing MCI. One issue is that there is no single optimal method to elicit SCC; rather there are at least 20 competing subjective memory questionnaires, few of which have adequate validation. An even more fundamental issue is that whilst many studies document a relationship between subjective and objective memory complaints, many have failed to find such a relationship (for review see [4]).

A further complication is that SCC can represent the concerns of a patient or a close family member. This might prove to be important as preliminary studies have found that the association between subjective ratings and future cognitive decline is stronger for informant rather than patient complaints [5]. Collectively, these issues have led to uncertainty about the clinical significance of patient-reported SCC and a question mark over the use of SCC in defining MCI. In order to clarify the significance of SCC in diagnosing MCI, four questions which may help disentangle this complex issue are suggested: How many health elderly people complain of SCC compared to those with MCI? How is the prevalence of MCI affected by the inclusion of SCC in the definition? How is the prognosis of MCI affected by inclusion of SCC? How should SCC best be defined?

How many health elderly people complain of SCC compared to those with MCI?

Several studies have examined the rate of memory difficulties in selected community samples, but few have done so in comparison to those with known MCI [4]. A complication is...
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that the rate of SCC is not stable but varies significantly over time. A second complication is that the rate of SCC is strongly influenced by age such that the rate in those aged under 65 is about 20%, but this quickly rises to about 90% in those over 85 [6]. One of the best estimates of SCC comes from Crooks and colleagues (2001) who studied a community sample aged 65 and older using the single question ‘Do you have severe memory problems?’ [7] It was found that 38.6% of those with dementia, 12.4% of those with loosely defined MCI and 1% of non-cognitively impaired controls reported severe SCC. Clearly, if one required SCC as part of the criteria for progression to dementia: 71.4% of those meeting all criteria were required and 56% where neither was required. Indirect evidence also comes from other long-term studies where SCC were specifically not required in the definition of MCI. Here the progression rate to dementia tends to be much lower than expected.

An important finding was recently reported from participants in the Kungsholmen project, interviewed 3 years before developing dementia [14]. One-third reported neither memory complaints nor objective cognitive deficits on the Mini-Mental State Examination (MMSE) 3 years before diagnosis. A further 16% had no complaints but evidence of decline on the MMSE. Thus, although there is a definite association with underlying cognitive disorders, subject complaints are neither necessary nor sufficient for a diagnosis of either MCI or dementia or the prediction of later dementia.

How should SCC be defined?

If SCC do have either diagnostic or prognostic significance, what is the best way to elicit such complaints and are all complaints of equal significance? In other words, should all possible complaints be included under the rubric of MCI or only certain ‘high-risk’ complaints? Grut et al (1993) examined the significance of ‘slight’ versus ‘marked’ SCC [15]. Marked deficits were more discriminating of those with MCI versus without MCI occurring in 19% versus 5% compared with 30 and 28%, for ‘slight’ deficits. Clarnette and colleagues (2001) compared 97 individuals with and without SCC (regardless of MCI status) [16]. From a small list of complaints, the most discriminating was word-finding difficulty. This hints that not all types of cognitive complaints are of equal significance and echoes the findings of neuropsychological studies examining the significance of specific types of cognitive test in diagnosing dementia and MCI.

Conclusion

From this data, it is clear that the relationship between subjective and objective cognitive impairments is complex. Looked at categorically, there are four subgroups of people depending on their subjective and objective complaints (both, neither, subjective alone and objective alone). Lautenschlager and colleagues found that the proportion in each of these categories was 10.6, 40.1, 46 and 3.4%, respectively [17]. Risk of progression appears to be ranked as follows: both > objective alone > subjective alone > neither. Yet perceived forgetfulness is not always a sinister finding. In the Maastricht Aging Study, 30% of those with memory difficulties had little or no impairment in activities of daily living and about 40% were not (or hardly) worried about their forgetfulness. It seems likely that in the absence of any other clinically concerning finding, isolated SCC are unlikely to be clinically significant. In association with other features, however, they do have added value (for prediction of later dementia) but at a cost of reducing the proportion of people who can be labelled with MCI. In statistical terms, they increase the specificity...
A combination of subjective and objective deficits is a cause for concern. Otherwise healthy individuals with mild cognitive impairment (MCI) report subjective difficulties in memory compared with word-finding difficulty. MCI is a condition of mixed aetiology which leads to difficulties in memory compared with word-finding difficulty. Regarding the diagnosis of MCI, it might be useful to redefine the core criteria for MCI on the basis of objective deficits alone and then to specify the presence or absence of risk factors such as SCC, functional impairment, vascular disease and biological markers. Indeed, given adequate data a risk calculator might be possible akin to that already used to calculate cardiovascular risk.

There has been a great deal of useful research on SCC and MCI in the last 10 years, but no very large naturalistic studies that would allow accurate risk profiling, although such studies are underway. There have also been no studies examining how well SCC would differentiate those with MCI from those with depression, anxiety or other causes of cognitive complaints. Finally we have almost no information on the relative risk of different types of cognitive complaint, e.g. difficulties in memory compared with word-finding difficulty. Future studies on MCI should specify the degree and nature of both subjective and objective memory complaints.

Key points

- MCI is a condition of mixed aetiology which leads to dementia in about half of cases.
- Many but not all individuals with MCI report subjective cognitive difficulties.
- Otherwise healthy individuals with mild cognitive complaints are unlikely to be at high risk of future decline.
- A combination of subjective and objective deficits is a cause for concern.

References


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