

Subjective Memory Complaints in Older Adults

Associations with memory impairment, mental health, and future memory decline

Kathryn Greenop, Osvaldo Almeida, Leon Flicker, Lynda McMullin, Nicola Lautenschlager

WESTERN AUSTRALIAN CENTRE FOR
HEALTH X AGEING

Complaints about problems/difficulties or changes in memory are very common in older adults

Older adults (community sample): 25-50% (*Jonker et al 2000*)

MAS 55-65 yo prevalence is 41%, 70-85 yo 52%

Also quite common in younger people:

25-35 yo prevalence: 29%

40-50 yo prevalence: 34% (*Commissaris, 1998*)

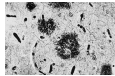
May depend on nature of questions regarding memory/assessment used, other co-variables.



It is uncertain if subjective memory complaints (SMC) reflect true problems or changes in memory ability, or are indicative of other problems (probably both).

Previous research has correlated SMC with

- current memory performance (e.g. Mol et al. 2006)
- Cognitive decline (Glodzik-Sobanska, 2007; Jorm, 2001; Reid 2006), and
- AD pathology (Barnes et al 2006)



Many researchers have found NO or very little relationship between SMC and memory performance or decline (e.g. Minett et al., 2005; Derouesne, 1999)

Many other factors have been associated with SMCs:

- Depression
- Anxiety
- Poor quality of life
- Poor physical health
- Neurotic personality traits
- Low perceived self-efficacy/mastery
- Actual decline in high-functioning/highly educated people below threshold for detection



(Comijs et al. 2002; Mol et al. 2006; Jorm et al. 2001)

Many studies find a combination of variables are associated with memory complaints – not one factor explains SMCs

GPs/health care professionals need to know how to deal with SMC so that real problems aren't ignored, whether memory, psychological etc.

SMCs may be basis for further assessment if initial screen shows a problem with memory or depressed mood etc.

Memory complaints in research may be difficult to quantify with simple questions as answers may be vague or inconsistent. This may reflect how the question is asked, how much memory problems affect someone's life or may reflect genuine fluctuations.

Questionnaires are good ways of assessing SMC's in research as can get a clearer picture of the nature and severity of complaints and how much they affect a person's life.

PEPERS: Perth Perception Study

Main objective of this study was to examine the relationship between memory problems and insight of those problems.

Current analysis looks at relationship between memory complaints and cognitive performance, quality of life.

183 community-dwelling adults ≥ 65 years (non-demented, no acute depression at baseline):

92 of these had mild cognitive impairment (MCI) based on scores on CERAD battery (at least 1 item ≤ -1.5 SD from norm) Did NOT have to have up-front memory complaints to be MCI.

91 were controls, had no up-front memory complaints and normal CERAD scores.

Assessments

ADAS-Cog: cognitive performance

Anosognosia Questionnaire for Dementia (AQ-D), patient version: subjective memory complaints

SF-36: mental and physical health scores, measure of health and quality of life

PHQ-9 depression scale from general health questionnaire

Cambridge Contextual Reading Task – estimates IQ

Anosognosia Questionnaire for Dementia, AQ-D (Migliorelli et al., 1995)

Designed to assess problems (patient vs. informant) relevant to dementia: patient only scores used here.
30 questions on memory problems, rated on scale of 0-3 (never, sometimes, often, always)

Example memory questions:

Do you have problems remembering the date?
Do you have problems understanding conversations?
Do you forget where you leave things in the house?
Do you have problems remembering appointments?

Also ADL questions, e.g.

Do you have problems signing your name?
Do you have problems feeding yourself?

And psychiatric questions e.g.

Are you more irritated or more easily lose your temper?
Are you more rigid in your decisions, with less capacity to cope with situations?

Total score calculated of sum of all responses.

Results

When all participants used, there were correlations between AQ-D and

ADAS-Cog ($r = 0.324, p < 0.001$)

IQ ($r = -0.319, p < 0.001$)

PHQ-9 depression ($r = 0.258, p < 0.001$)

SF-36 mental score ($r = -0.382, p < 0.001$)

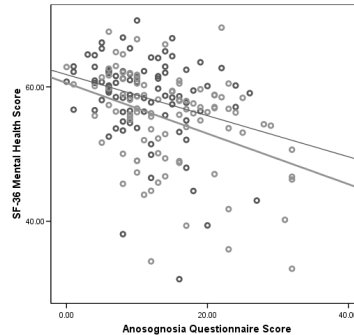
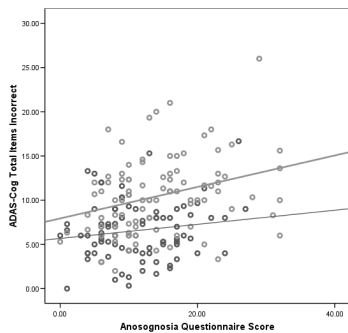
No correlation between AQ-D and age, education, SF-36 physical scores.

MCI group versus control group

Variable	Control	MCI	t	p value
AQ	11.14	14.47	-3.34	0.001
ADAS-COG	6.56	10.51	-6.69	<0.001
IQ	117.84	114.29	4.47	<0.001
PHQ-9	1.9	2.68	-1.79	0.074
SF36 mental	58.41	55.12	3.27	0.001
SF36 physical	43.58	42.01	1.14	0.256

In BOTH groups AQ-D correlated with IQ and SF36 mental score.

Only in MCI group did AQ-D correlate with ADAS-Cog and PHQ-9.



To further investigate the relationship between SMC/cognition and mental health in the MCI group, linear regression was performed for these subjects.

Results indicated that both ADAS-cog performance and SF-36 Mental score were independently associated with SMC

	R square	F/t	sig
Total Model	0.254	7.42	>0.001
Sex		-1.69	0.094
ADAS-Cog		2.553	0.012
PHQ-9 score		0.692	0.491
SF-36 MHS		-2.575	0.012

18-month Follow-up results

Cross-sectional results indicate that SMC's are related to both actual cognitive impairment (if present) AND mental health problems.

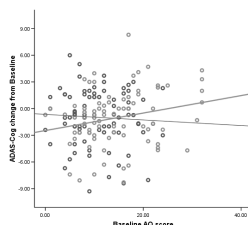
It is of more interest to see if SMC's can predict decline over time i.e. do people who have higher levels of complaints now have greater cognitive decline over time?

Preliminary results for 18-month follow-up:

MCI group: AQ-D score correlated significantly with change in ADAS-Cog score ($r = 0.232$, $p = 0.036$).

Controls: no correlation between AQ-D and change in ADAS-Cog score.

NB: baseline mental health score did not correlate with change in ADAS-Cog.



Conclusions

- In the PEPERS, the MCI group had a positive association between SMC and cognitive performance.
- In all participants was association between SMC and poorer mental health scores.
- MCI patients showed correlation between intensity of SMC at baseline and decline on ADAS-cog after 18 months.
- Health care providers presented with SMCs should assess cognition *and* mental health before recommending action. If no current cognitive problems, they may be indication of poor mental health/quality of life.



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