

Does a new assessment paradigm exploring everyday memories better reflect subjective memory complaints?

INTRODUCTION

Weak or even no correlations are observed between self-assessment of cognitive functioning and objective performances at traditional cognitive tasks.⁽¹⁾ This is notably the case when exploring memory functioning.⁽²⁾

2 possible explanations: (1) Other psychological factors interfere with self-assessment of cognitive functioning.

(2) There is a gap between what is required to solve the usual evaluation paradigms and everyday memory functioning.

➔ To explore this second explanation, the development of a more naturalistic memory assessment tool is needed.

Question: Does a new ecological assessment of everyday memory better reflect subjective memory complaints than validated memory tasks?

MATERIALS AND METHODS

PARTICIPANTS

20 participants with subjective memory complaints

VS

20 matched controls

$M_{age} = 34.70$; $SD = 14.95$ / $M_{education} = 14.65$; $SD = 1.75$

$M_{age} = 35.85$; $SD = 14.38$ / $M_{education} = 14.60$; $SD = 1.53$

MATERIALS

Self-assessment of everyday memory functioning

Multifactorial Memory Questionnaire (MMQ)⁽³⁾:
3 scales: Satisfaction, Problems, Strategy

Validated memory task

Weschler Memory Scale (MEM-IV)⁽⁴⁾:

3 index: Auditory Memory Index (AMI), Visual Memory Index (VMI), Delayed Memory Index (DMI)

Everyday memory task

1) Sampling of everyday experienced events

5 times/day during 7 days: questions about the activity participants were doing at the present time via the mobile application m-path⁽⁵⁾



2) Recalling phase

Free recall of 5 recorded events (selected on the basis of their memorability, importance, and frequency) following the autobiographical interview administration proposed by Levine et al.⁽⁶⁾ → Obtention of 4 objective scores:

1) **Internal richness** = number of internal episodic details

3) **Specificity** = evaluation of the retrieval specificity (0 to 3)

+ Self-assessment of memories' phenomenology (vividness, coherence, reliving, rehearsal, visual details, scene) on visual analogical scales from 0 to 100

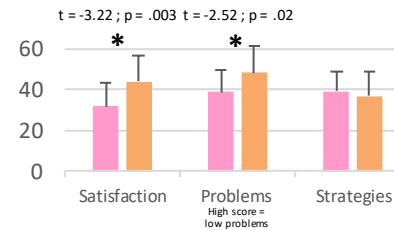
2) **External richness** = number of external details

4) **Accuracy** = ratio of reported information corresponding to the ones encoded in the app (time, day, mood, persons, and place)

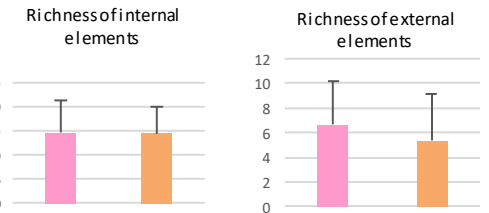
RESULTS

Controls Subjective complaints

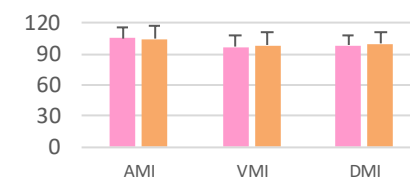
Student t – Self-assessment of memory functioning (MMQ)



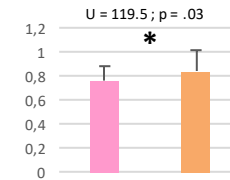
Mann-Whitney U – Everyday memory task



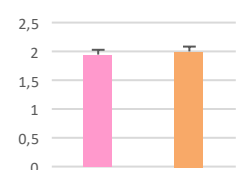
Student t – Validated memory task (MEM-IV)



Accuracy



Specificity



- No significant correlation between the 4 objective scores of the everyday memory task and self-assessment of memory functioning (all $p > .08$)
- Significant correlations between the phenomenology of these everyday memories (vividness, coherence, reliving, visual details) and the *problems* scale of the MMQ (all $p < .04$)

DISCUSSION

- Our new everyday memory task seems to better discriminate between participants with subjective memory complaints and healthy controls than a widely validated memory task, suggesting an **increased sensitivity of this new assessment paradigm**.
- The absence of significant correlation with self-memory assessment suggests that other psychological factors (e.g., stress, fatigue, etc.) might influence subjective complaints while the significant correlations obtained between self-memory assessment and the phenomenology of everyday memories underline the importance of conducting a comprehensive exploration of memory functioning.
- **Future perspectives:** exploring the feasibility and sensitivity of this new ecological assessment in clinical populations by assessing both the objective memory performance and the associated phenomenology.