A RANDOMIZED CONTROLLED STUDY OF COGNITIVE REMEDIATION IN SCHIZOPHRENIA (RECOS: COGNITIVE REMEDIATION IN SCHIZOPHRENIA VS CRT: COGNITIVE REMEDIATION THERAPY)

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Introduction

Cognitive remediation is a newly developed tool used to help improve information processing in schizophrenia (for a review of the existing tools see Demily & Franck, 2008), and indirectly, it can also help improve their everyday life. This new tool has been developed to complete the action of antipsychotics, whose effects on cognition have been proved limited.

The main objective of this clinical research program is to validate the RECOS cognitive remediation program. To do so, the RECOS program will be compared to the already validated Cognitive Remediation Therapy (CRT) developed by Ann Delahunty and Til Wykes.

The RECOS program aims to provide new strategies that the patients will be able to develop and use more and more in their everyday life.

Cognitive Remediation Therapy (CRT) :

. Program developped by Delahunty & Morice (1993) and Delahunty, Wykes, Morice & Newton (2000). The program is validated and was translated in French for the purpose of this study.

. CRT uses a series of paper/pen exercises with progressive difficulty.

. The training is on an individual basis and the patient has to be trained on 3 main cognitive functions: shifting, planning and working memory.

COgnitive REmediation in Schizophrenia (RECOS) :

. RECOS is a program aiming specifically the patient's main impairments. The training is also on an individual basis.
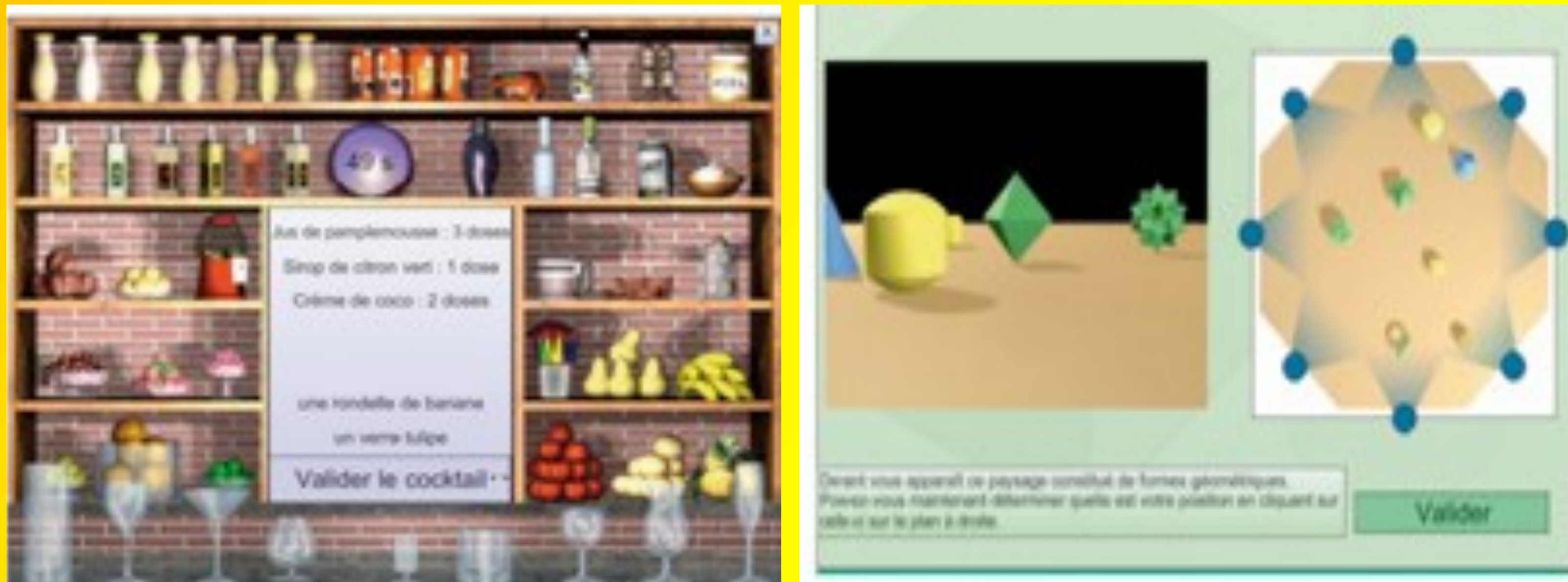
. RECOS uses paper/pen exercises with progressive difficulty and also uses a specifically designed software (2 examples out of 18 different levelled exercises):

- Left: the patient has to learn the recipes of different cocktails, and reproduce them.

. Right: to help the patients learn how to change point of view and spatial positioning, we show them a picture (right) and they have to find the point of view from which they're seeing the picture amongst various objects (left).

The validation protocol:

. **Aim of the study**: To validate the efficiency of the RECOS program on the cognitive functioning and the quantification of its impact on the symptoms in schizophrenia.

. **Hypothesis**: The use of RECOS will significantly reduce cognitive impairments and will improve the patient's autonomy and their skill to manage their everyday life, at least as much as CRT.

. **Samples**: the study aims to include 280 patients, this aim is purely theoretical (one half will be treated with RECOS and the other half with CRT).

- Pre-inclusion criteria: patients aged from 18 to 45 years old, diagnosed according to the DSM-IV, French and agreement of a guardian.

. **Method**: main structure of the treatment identical for the two axes of the research (number, frequency and length of the sessions).

- Each training is specific to each RECOS patient

. The training is the same for every CRT patient

Progress of the training

Month 0-2	Pre-inclusion
Month 0-2	Clinical assessment 1 + inclusion (randomization)
Month 2	BADS assessment (our reference mesure)
Month 2	Assessment of the functional impacts 1
Month 2	Psychoeducation + main aims of the training for the patient
Month 3	CRT or RECOS training
Month 6-7	Clinical and neuropsychological assessment 2
Month 6-7	BADS Assessment 2
Month 12-13	Clinical and neuropsychological assessment 3
Month 12-13	BADS Assessment 3

Progression of the RECOS study in June 2009
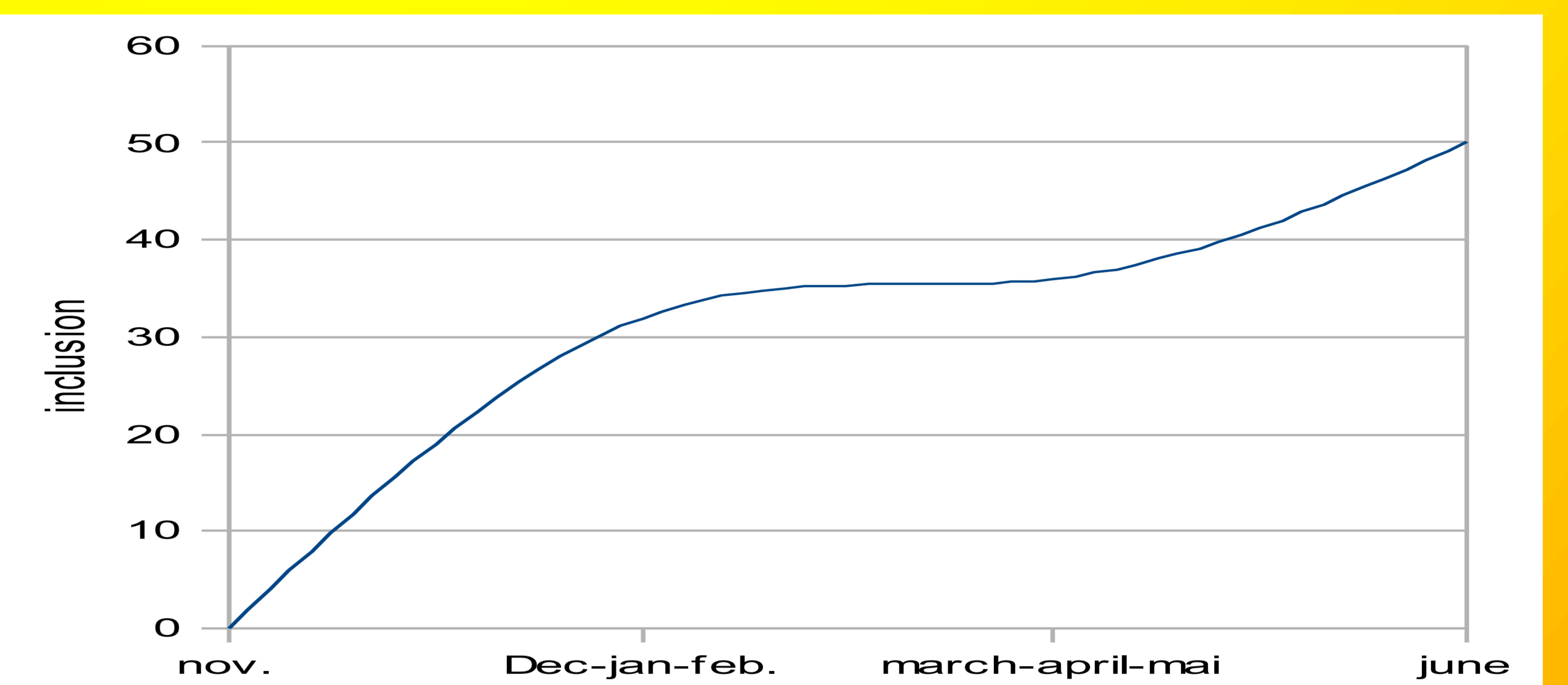
Medium ranges of the pre-training neuropsychological assessments for each cognitive function for the patients included
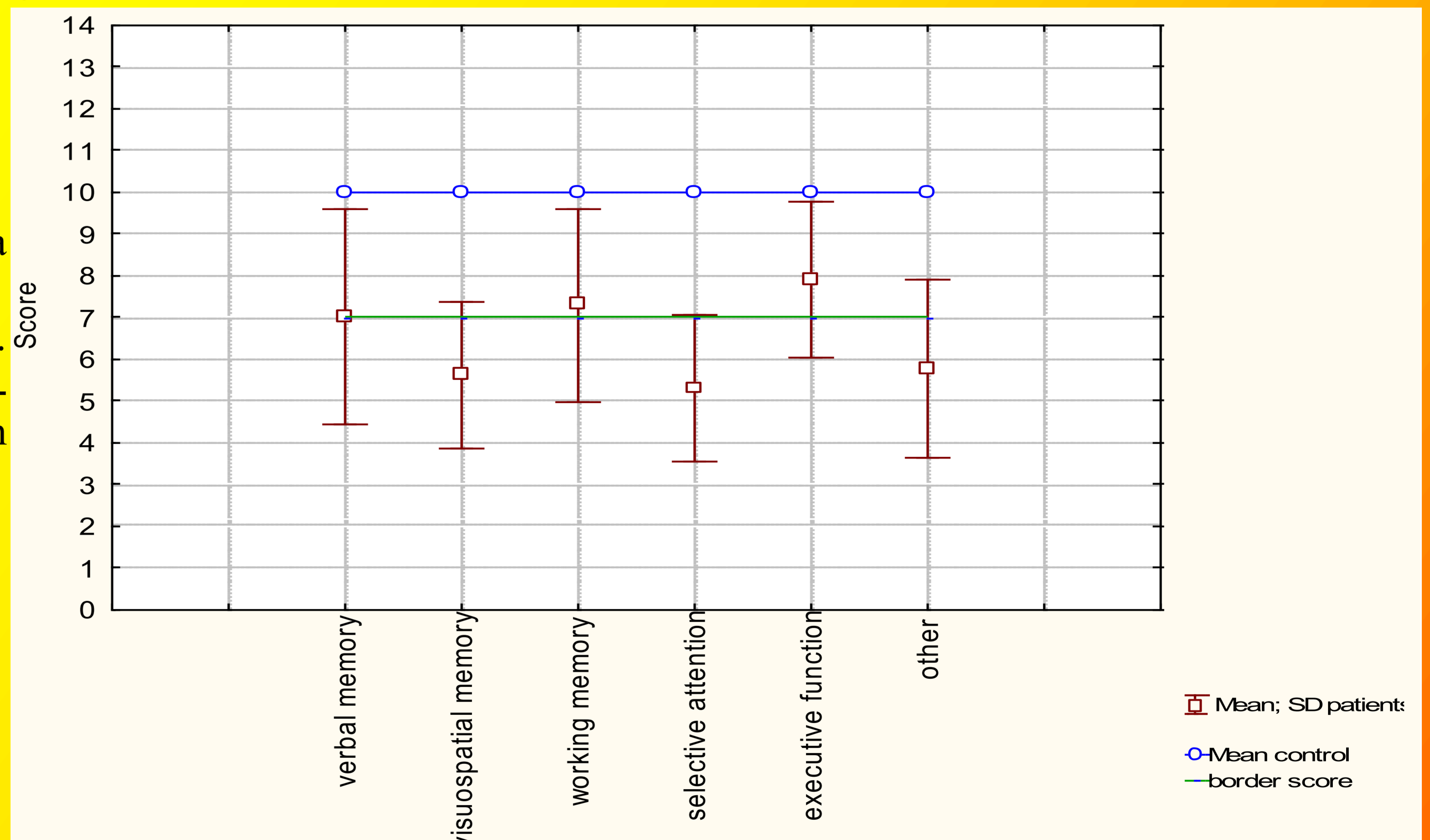
The mean score for the BADS (based on the profile scores of the various exercises of the test) is 83,36 (SD: 20,33). The cut-off score being 85, the performances of our patients are impaired.

Conclusion: Although sufficient data is not as yet available, we have been able to observe behavioural changes in relation to problem-solving and memory and attention span enhancement. The patients seen tend to show signs of using the strategies learned during the remediation training and seem to be aware that behavioural changes are also occurring in their everyday life.

References: Demily, C., & Franck, N., (2008). Cognitive remediation: a promising tool for the treatment of schizophrenia. *Expert Rev. Neurother 8 (7),* 1029-1036; Wykes, T., Reeder, J., Landauer, S., Everitt, B., Knapp, M., Potel, A., Romeo, R., (2007). Cognitive Remediation Therapy in Schizophrenia. *British Journal of Psychiatry, 190,* 421-427; Vianin, P. (2007). Remédiation cognitive de la schizophrénie: présentation du programme RECOS. *Anales médico psychologiques.*