CONGRUENCE BETWEEN REPORTED SYMPTOMS AND NEUROPSYCHOLOGICAL RESULTS IN MALINGERING DETECTION

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INTRODUCTION

Lack of congruence is considered the central key in detection of decreased effort. These inconsistencies can be observed between different sources of information. These include comparison between different sources of information: history obtained from the patient and from the medical record, in patient symptoms and those reported by others, symptoms outlined by the referral source and the observed behaviour, symptoms reported by the patient and those reported by collateral interviews, neuropsychological test scores and those expected according to the severity of the documented injury, results of the neuropsychological assessment and the activities of daily living, finding within and between the different neuropsychological domain, and between/among the different neuropsychological tests within a domain. Nevertheless, these aspects rarely have been studied scientifically. This study focuses on how these variables are affected in brain injured patients who have been classified as either exhibiting adequate and inadequate effort.

METHODS

•**Participants**: Two groups were studied: Ten individuals suspected of malingering (SM) based on scores indicative of poor effort on two or more malingering tests (VSVT, TOMM, the b test, Dot Counting Test and Rey 15-item test) that were involved in litigation. This group consisted in 8 males and 2 females, with a mean age of 35.20 years (Sd=11.10), and 8.50 years of education (Sd=1.35). The second group comprised 20 patients (11 males and 9 females) with mild traumatic brain injury (MTBI). Mean age in this group was 32.50 (Sd=13.67) with a mean of 9.30 years of education (Sd=3.45).

• **Materials**: All the participants underwent an extensive neuropsychological assessment that also included the Rivermead Post Concussion Symptoms Questionnaire (RPCQ), d2, Test de Aprendizaje Verbal España-Complutense (TAVEC, the Spanish adaptation of the CVLT), phonetic fluency (FAS) and the Rey Complex Figure Test (RCFT).

• **Procedure**: Recruitment of the TBI patients was done retrospectively, using a list of MTBI cases that had required medical services at the Hospital Universitario Virgen de las Nieves (Spain) from January 2003 to April 2004. Neuropsychological assessments were conducted at least 6 months after MTBI. Each evaluation lasted approximately two and a half hours. Due to its length, there was a 20-minute break after approximately one and one-half hours of testing. All the assessments were conducted by the same trained technician.

RESULTS

•Pearson´s correlations were conducted between three symptoms measured with the RPCQ (poor memory, poor concentration and taking longer to think) and different neuropsychological variables (Rey Complex Figure Test delayed recall, CON variable from the d2 test of attention, total phonetic fluency -FAS- and TAVEC delayed recall). The results showed that reported symptoms of poor memory measured with the RPCQ are correlated with the TAVEC just in the MTBI group (-.565**). In the malingering group, poor memory and poor concentration were correlated with the result of the phonetic fluency test (.998** and .997**, respectively).

Table 1. Correlation between referred symptoms and neurop

	MTBI group			Malingering group		
	Poor memory	Poor concentration	Taking longer to think	Poor memory	Poor concentration	Taking longer to think
RCFT delayed recall	.409	.053	-.110	.026	.026	.529
TAVEC delayed recall	-.565**	-.378	-.102	-.150	-.152	.296
d2 CON	-.093	-.064	.040	.998**	.997**	.500
Phonetic fluency	-.072	-.141	-.191	.400	.400	.192

Note: MTBI= Mild Traumatic Brain Injury; RCFT= Rey Complex Figure Test; TAVEC= Test de Aprendizaje Verbal España-Complutense.

CONCLUSIONS

In the MTBI group, we expected a relationship between memory complaints and the measures of memory (TAVEC and RCFT), concentration and the measure of concentration according to the d2 test of attention (CON) and the complaint taking longer to think and the phonetic fluency measure (FAS). Nevertheless, the relationship was only found between the reported symptom of poor memory and the TAVEC in the MTBI patients. Despite the lack of correlations, the pattern of reported symptoms and test results makes neuropsychological sense in the MTBI group and not in the malingering group. It seems that lack of congruence between reported symptoms and neuropsychological assessment should be considered as a possible indicator of malingering.