Detection of malingering in a Spanish population using three specific malingering tests

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Abstract

The detection of feigned cognitive impairment remains difficult and may be even more challenging in certain population groups. Studies on the use of neuropsychological tests in ethnic groups for which they were not designed have shown variations in performance associated with cultural differences. With this background, our group studied a Spanish population by applying commonly used procedures [Victoria Symptom Validity Test (VSVT), Test of Memory Malingering (TOMM), and the b test] in a group with post-concussion syndrome (PCS) (whether litigants or not) and in a group of analog malingerers (AN). These tests appeared to function adequately in this Spanish population, who showed similar performances to results published for North Americans.

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Keywords: Malingering; Post-concussion syndrome; Spanish speakers; VSVT; TOMM; b test

1. Introduction

Forensic neuropsychology has experienced enormous growth over recent years. Thus, the percentage of articles on neuropsychological tests in the most widely read neuropsychological journals (Archives of Clinical Neuropsychology, Journal of Clinical and Experimental Neuropsychology, and The Clinical Neuropsychology) increased from 4% in 1990 to 14% in 2000. The predominant issue in these studies is malingering, addressed by 86% of the forensic papers (Sweet, King, Malina, Bergman, & Simmons, 2002).

The upsurge of interest in this issue results from the increasingly frequent demand for neuropsychologists to give expert opinion in personal injury litigation, especially in cases of mild or moderate brain damage. Thus, a large proportion of individuals undergoing neuropsychological assessment in the United States are implicated in legal cases that would afford them considerable economic benefits if cognitive damage were demonstrated, whether genuine or not. In many cases, neuropsychological test data are the only objective source of evidence of deficits, especially in cases of mild brain damage, where neuroimaging techniques generally give negative results and neurological signs are usually absent.

Within the spectrum of malingering, individuals can opt to feign cognitive difficulties, psychiatric complications, or somatic problems, such as chronic pain. Unfortunately, detection of the last two types is poorly developed and remains
to be fully addressed by neuropsychologists, who have largely focused on detecting the feigning of cognitive deficits, which has been widely and extensively researched since the 1980s. This intensity of research efforts is related to the very high social and personal costs of inaccurate testing (false positives or false negatives). Thus, in the state of Louisiana alone, malingering has been estimated to cost $107.2 million per year when sentences and verdicts, expenditure on unnecessary medical treatments, and defense costs are included (Gouvier, Lees-Haley, & Hammer, 2003). If this figure is extrapolated to the entire nation, the costs of malingering in the United States may be as high as $5.36 billion per year, without taking account of working days lost or the cost of substituting for malingerers (Gouvier et al., 2003). If this can be considered the cost of false negatives, false positives incur important costs that are more social or personal, such as the failure to treat patients incorrectly identified as malingerers and their negative labeling.

The difficulty of detecting malingering may be even greater in specific populations, such as Hispanics. Studies on the use of neuropsychological tests with other ethnic groups than the tests were designed for have shown differences in performance associated with cultural differences (Puente & Perez-Garcia, 2000a). These differences may lead to diagnostic errors, and it has been recommended that specific scales and cutoff points be used for each ethnic group (Puente & Perez-Garcia, 2000b). Thus, the NAN Policy & Planning Committee (Bush et al., 2005) stated that the use of Symptom Validity Tests with culturally diverse populations for whom validation data do not exist must be carefully considered (p. 425). In the case of Hispanic populations, this difficulty is compounded by the low development of forensic neuropsychology in Spanish-speaking countries (Verdejo-García, Alcázar, Gómez-Jarabo, & Pérez-García, 2004).

With the above background, we decided to investigate the performances of a Spanish population in the commonly used Victoria Symptom Validity Test (VSVT), Test of Memory Malingering (TOMM), and b test, including patients with post-concussion syndrome (PCS) involved in litigation, patients with PCS not involved in litigation, and a group of analog malingerers.

2. Method

2.1. Subjects

Three groups were studied: a group of patients with PCS not involved in any PCS-related litigation (PCS-NLI); a group of patients with PCS and involved in PCS-related litigation (PCS-LI), and a group of analog malingerers (AN).

The PCS-NLI group comprised 12 individuals (6 males and 6 females) with mean (±standard deviation) age of 31.16 ± 10.67 years and mean 9.58 ± 3.62 years of schooling. Inclusion criteria were diagnosis of mild traumatic brain injury according to the American Congress of Rehabilitation Medicine (Kay et al., 1993) (loss of consciousness for ≤30 min, Glasgow Coma Scale of 13–15 points, and post-traumatic amnesia for <24 h), diagnosis of PCS according to ICD-10 (World Health Organization, 1992), and age between 18 and 55 years. Exclusion criteria were pregnancy (due to radiology protection criteria), head CT findings or presence of psychiatric disorders, history of substance abuse, and engagement in PCS-related litigation. The PCS-LI group comprised 14 individuals (3 female and 11 male) with mean age of 30.35 ± 9.77 years and mean 8.92 ± 2.39 years of schooling. The inclusion and exclusion criteria were the same as for the PCS-NLI group except that involvement in PCS-related litigation was an inclusion criterion. The AN group comprised 35 university students (3 male and 32 female) with mean age of 23.22 ± 1.76 years and mean 16.86 ± 0.41 years of schooling. Inclusion criteria were to be a 4th-year psychology student and therefore possess knowledge of brain damage and neuropsychology; and age between 18 and 55 years. Exclusion criteria were the same as for the other groups, except that pregnancy was not an exclusion criterion.

Differences were found between PCS groups and the AN group on age \(F(2,58) = 12.30; p < .000\), and education \(F(2,58) = 115.01; p < .000\), being the AN group younger and better educated than the other groups. Nevertheless, these variables are not related to performance on the VSVT, TOMM, and b Test (Boone, Lu, & Hezberg, 2002; Slick, Hopp, Strauss, & Thompson, 1997; Tombaugh, 1996). Moreover, the AN group is younger and better educated than PCS groups, so it is difficult to explain their worse performance on the malingering tests attending to demographic variables.

2.2. Instruments

The VSVT (Slick et al., 1997) is a computer-administered and scored test. It includes a total of 48 items, presented in three blocks of 16 items each. During the study trial, a single five-digit study number is presented for 5 s
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