Pergamon

Archives of Clinical Neuropsychology
16 (2001) 669–677

Archives
of
CLINICAL
NEUROPSYCHOLOGY

The Word Completion Memory Test (WCMT): a new test to detect malingered memory deficits

Robin C. Hilsabeck[a,*], Denny C. LeCompte[b], Allison R. Marks[c], Jordan Grafman[c]

[a]*University of California, San Diego, CA, USA*
[b]*BMC Software, Houston, TX, USA*
[c]*National Institutes of Neurological Disorders and Stroke, National Institutes of Health, USA*

Accepted 3 July 2000

Abstract

In recent years, much research has focused on developing tests to detect malingering. A drawback of existing tests is their poor ability to detect malingerers possessing more "sophisticated" knowledge of neuropsychological deficits. The current study presents preliminary validation data on a new measure, the Word Completion Memory Test (WCMT), which is the first malingering test to utilize a sophisticated coaching methodology in its development. The WCMT was administered to control participants, memory-impaired patients, and coached simulators. The coached simulators were provided with specific information about and examples of memory deficits commonly experienced following closed head injury (CHI; e.g., anterograde vs. retrograde amnesia). They also read a detailed scenario describing the lifestyle and motivations likely experienced by CHI litigants, and then practiced their roles by taking a quiz about their deficits. Results showed that 93% of coached simulators and 100% of control and memory-impaired participants were correctly classified by the WCMT. © 2001 National Academy of Neuropsychology. Published by Elsevier Science Ltd.

Keywords: Malingering; Neuropsychological; Analogue; Coaching; WCMT

Cognitive dysfunction is a common occurrence following closed head injury (CHI; Ellenberg, Levin, & Saydjari, 1996; Ruff et al., 1993). Given that cognitive impairments associated with CHI can be disabling (Levin, Benton, & Grossman, 1982; Lezak, 1995), it is

* Corrresponding author. UCSD Medical Center, 200 West Arbor Drive, San Diego, CA 92103-8707, USA. Tel.: +1-619-543-7218; fax: +1-619-543-2766.
E-mail address: rhilsabeck@ucsd.edu (R.C. Hilsabeck).

0887-6177/01/$ – see front matter
PII: S0887-6177(00)00077-9

not surprising that CHI survivors often retain attorneys to aid in securing financial compensation. It also is not surprising that the possibility of receiving millions of dollars for lost cognitive abilities may tempt some litigants to exaggerate or fabricate their injury-related problems. In fact, according to Haines and Norris (1995), CHI is the most common neuropsychological syndrome feigned. As a result, neuropsychologists are often asked by the courts to determine the legitimacy of alleged cognitive dysfunction secondary to CHI. Thus, the detection of malingered neuropsychological impairments has become an important area of research.

The problem for neuropsychologists has been an inability to distinguish "real" from malingered deficits with an acceptable degree of certainty. Since there is currently no perfect measure of feigning and simulators are not likely to admit their deceit, researchers have been forced to rely on two primary research paradigms, known-groups and analogue designs, to study this phenomenon (Rogers, Harrell, & Liff, 1993). In known-groups designs, clinicians independent of the research project identify simulators via clinical judgment and then compare their performances on standardized measures with performances of truly impaired patients. The principal advantage of this design is its direct clinical applicability to "real-world" feigners. However, the inability of clinicians to accurately identify simulators using clinical judgment alone was the impetus for developing simulation detection measures in the first place (Faust, Hart, Guilmette, & Arkes, 1988; Heaton, Smith, Lehman, & Vogt, 1978). Therefore, the known-groups design is significantly limited by its use of clinical judgment as the criterion by which simulators are identified.

This limitation of the known-groups design has led most researchers to use the analogue design. In analogue designs, neurologically normal participants are instructed to feign impairment on standardized measures and their performances are then compared with one or more comparison groups, such as memory-disordered, brain-injured, or normal participants instructed to do their best (Rogers et al., 1993). The primary drawback to the analogue design is its unknown generalizability to the real world. In an effort to address this limitation, Rogers (1988) offered some methodological suggestions, including providing instructions to fake "believable" deficits. Franzen, Iverson, and McCracken (1990) further suggested offering differing kinds of instructions to help provide future directions for study when using analogue participants.

In general, research investigating the effects of task instructions has shown that the more information provided to help simulate impairment, the better analogue participants are at performing like truly impaired individuals. For example, Rose, Hall, and Szalda-Petree (1995) demonstrated that analogue simulators who were provided information about problems typically experienced by head-injured persons were able to avoid detection on a forced-choice simulation measure more often than analogue simulators not provided this information. Similarly, Martin, Gouvier, Todd, Bolter, and Niccolls (1992) found that analogue simulators specifically instructed to perform above chance levels and to miss more hard than easy items on a forced-choice recognition memory test performed more like brain-injured participants than analogue simulators instructed only to demonstrate memory impairment.

In spite of the above evidence that coaching analogue participants has a significant effect on test performance, some researchers continue to simply instruct analogue participants to fake "believable" cognitive deficits (Beetar & Williams, 1995; Chouinard & Rouleau, 1997), without providing them with specific information about *how* to fake believable deficits.