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Deceptive Clinical Diagnosing of Malingering via Structured Inventory of Malingered Symptomatology

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Abstract

This article provides illustrative case histories of patients with legitimate neuropsychological symptoms after their motor vehicle accidents (MVAs) who had been rejected as malingerers by the psychologist contracted by the car insurance company. The psychologist ignored the physical facts of the MVA (such as repeated major impacts) to instead blindly rely on the patient's scores on the Structured Inventory of Malingered Symptomatology (SIMS). The SIMS was never properly validated on patients with neuropsychological symptoms such as the post-concussion syndrome or on patients with well documented causes of chronic pain: the test has scientifically very inept rates of false positives, i.e., of patients with legitimate symptoms falsely classified as malingerers. The SIMS contains many items inquiring about impaired sleep, depressive feelings, impaired memory or concentration, and other typical post-MVA neuropsychological symptoms such as tinnitus or impaired balance. That is, these items describe what is clinically known to be legitimate typical post-MVA symptoms: in an absurd manner, the endorsement of these SIMS items counts as "malingering" and alone causes the post-MVA patients to accumulate a score above the SIMS cut-off point of > 14, thus misclassifying them as malingerers. The more of these symptoms are experienced by the patient, the more likely is he or she to be classified as a malingerer.

Keywords: *malingering, pain, insomnia, depression, PTSD, anxiety, post-concussion syndrome, deception, SIMS*

Introduction

Many psychologists contracted by the car insurance companines rely on the Structured Inventory of Malingered Symptomatology (SIMS) originally published by Smith and Burger [1], and later on by Widows and Smith [2], to diagnose malingering in persons who were involved in a motor vehicle accident (MVA), i.e., on patients who report, in the context of their insurance claim, the typical post-MVA symptoms such as chronic pain, insomnia, post-traumatic stress disorder (PTSD), depression, anxiety, the post-concussion syndrome, and other post-MVA neurological symptoms related to whiplash. The following methodological defects of the SIMS make its use on real medical patients flagrantly unethical.

Above all, the SIMS was never adequately validated on patients with legitimate medical complaints in order to prevent unacceptably high rates of false positives (i.e., of patients misclassified as malingerers). In particular, to this date, no SIMS validation has been ever undertaken on post-MVA patients who report chronic pain, sleep difficulties, depression, anxiety, PTSD, or accident-related neuropsychological symptoms. These validation shortcomings of SIMS are criticized in Buros' Mental Measurement Yearbook [3]. The various short and long term post-MVA neuropsychological symptoms were studied recently by scales developed by Cernovsky, Istasy, Bureau, and Chiu [4, 5]. Some other classical neuropsychological signs can be assessed via the Rivermead scale [6].

Before any routine clinical diagnostic use on medical patients, especially if in the context of legal compensation claims, tests such as the SIMS must first undergo the valid scientific procedure of assessing their rates of false positives, to avoid an iatrogenic impact on patients. For example, before the SIMS is used on post-MVA patients, it would need to be

demonstrated that persons with legitimate post-MVA symptoms such as chronic pain (e.g., as documented via MRIs of the cervical or lumbosacral spine) are not excessively often misclassified as malingerers. Otherwise, the psychologist's report of "elevated scores on a psychological test of malingering" implying possible "symptom exaggeration" has its iatrogenic consequences such as unethical denials or undue delays of treatments or denials of disability benefits.

According to Anastasi's classical textbook of psychological testing [7], the "*criterion-related validity can be best characterized as the practical validity of a test for a specific purpose*." If contemplating the use of the SIMS on MVA patients, a prior validation study would have to involve a large group of them as the control group. So far, there have been no such scientific studies showing such successful validation of the SIMS.

The authors of the SIMS, Smith and Burger [1], developed the test only by comparing undergraduate psychology students instructed to respond honestly to those instructed to malinger either low intelligence, affective disorders, neurologic impairment, psychosis, and amnestic disorders. All of these college undergraduates were in adequate health to perform sufficiently well in their college. No group of real medical patients with legitimate symptoms was included as a control group. As a consequence, the SIMS somehow reflects the level of medical knowledge and psychological wisdom of those healthy undergraduates. SIMS authors themselves admitted in their article [1] that "*there are a number of limitations with this test. The greatest limitation is that this investigation is analogue-type research with limited generalizability. No criterion groups were used (e.g., subjects suffering from genuine psychosis).*" Regrettably, no such warnings about "limited generalizability" and no use of proper "criterion groups" are given in the commercial description of their SIMS on the publisher's website. The word "*malingering*" in the name of the SIMS has already misled too many test buyers to assume that the SIMS was validated for diagnosing of malingering in medical patients, perhaps also on those with post-MVA symptoms. SIMS authors and their test publisher have perpetuated this subtle deception over many years, perhaps in the context of financial interest. The test is presently available from its publisher only for a fee, starting at US $185 for an "Introductory Kit" that consists of its 40 page SIMS manual and 25 Response Forms.

The SIMS questionnaire consists of 75 true-false items. It is a naive error to assume that most SIMS items represent too bizarre, unusual, illogical, or blatantly atypical symptoms which, when endorsed, almost certainly indicate malingering. For example, SIMS items such as "I am depressed all the time" or "I have trouble sleeping" certainly should not count towards a total score of malingering when used on groups of medical patients in which such symptoms are notoriously prevalent. The face validity of the entire SIMS item pool is presently being investigated in more detail in a separate study, using a different methodology. It appears that more than 30 of the 75 items are consistent with the typical post-MVA psychological and neuropsychological symptoms such as depressive feelings possibly related to long term persistent pain, insomnia, and fatigue, as well as reduced cognitive focus (errors in cognitive processing of simple tasks) resulting from the persistent pain and long term insomnia. Furthermore, some SIMS items seem to indicate the post-concussion syndrome or related post-MVA neuropsychological signs such as impaired balance, tingling, numbness, or instances of relative loss of feeling in some of the limbs, or dizziness, and bouts of impaired muscular control over some limbs: there is a considerable overlap in the content of certain SIMS items with symptoms listed in the Rivermead Post-Concussion Syndrome Questionnaire [6] and also with yet other post-accident neuropsychological symptoms listed in scales proposed by Cernovsky, Istasy, Bureau, and Chiu [5].

Since at least 30 SIMS items are consistent with prevalent specific post-MVA symptoms, and since each such endorsed SIMS item counts one point towards the cut-off score of > 14 recommended by Widows and Smith [2] in their SIMS manual, too many post-MVA patients are unethically classified as malingerers. The more of such symptoms the patient experiences and reports, the more likely the patient is heiatrogenically mislabelled as a faker.

Meta-analytical review of the SIMS by van Impelen's team [8] indicated unduly high rates of false positives (i.e., of patients classified as malingerers) when the test is used on legitimate medical patients such as those with schizophrenia or intellectual disability. Van Impelen's team suggested raising the cut-off score to > 24 for "conclusive assessments," but this would still produce unacceptable rates of iatrogenic classifications via SIMS on post-MVA patients. Van Impelen's team [8] recommended the two-tests rule

[9], also called a two-failure rule [10], to reduce the high risk of false positives by using at least two symptom validity tests (SVT) rather than only SIMS alone.

Green's Non-Verbal Medical Symptom Validity Test (NV-MSVT) is frequently used as a second test. While some clinicians assume that Green's SVT [11] is almost infallible, crude diagnostic errors with such SVTs are well documented. For example, Bigler [12], see pages 1626-1627, presents the case of a patient who sustained multiple fractures in his MVA, whose related brain injuries were well documented via imaging studies, but who failed the malingering test, and would hence be classified as malingerer. One of the key goals of the Green's test is to examine whether or not the patient made a "proper effort," yet post-MVA patients with intense pain, insomnia, and PTSD almost invariably exhibit excessive fatigue, and accordingly have an excessively impaired concentration, to appear to make "a proper effort." There is now substantial neuropsychological consensus that scores on such "effort tests" can be confounded by factors such as fatigue (see Heilbronner, Sweet, Morgan, Larrabee, Millis, et al. [13], on page 1100).

Some of the prominent symptoms of patients with multiple sclerosis (pains and spasms, tingling and numbness, weakness or fatigue, dizziness, balance problems, cognitive problems, sexual dysfunction, urinary incontinence, and vision problems) are similar to those of MVA survivors. In a validity study of the SVT measures, Suchy et al. [14] examined 530 clinical cases with documented multiple sclerosis who all were independently diagnosed with MS, were not involved in a litigation, and were only being evaluated for treatment planning or follow-up. Yet 11% failed the SVT measures, i.e, they would be classified as malingerers. While some psychologists or insurance clerks might insist that 11% is an acceptable error for denying or indefinitely delaying the insurance claims of MVA patients, the impact of such "psychological assessment" is indisputably iatrogenic. From a mathematical point of view, if a psychologist provided "expert assessments" on 400 patients with legitimate symptoms over the last 4 years, then 44 patients may be classified as malingerers. Even if the professional attempts to protect himself or herself against malpractice suits by shrewdly interpreting SIMS scores as "elevated, hence suspect," "suggestive of exaggeration or magnification of symptoms," and indicates that the patient's claims "need further scrutiny," such "expert statements" still usually have iatrogenic consequences of denials or indefinite delays of treatments by naive car insurance clerks, who assume that, if a validity test administered by an expert yields suspect scores, the patient's claims are most probably false.

Some authors emphasize that the SIMS should not be used without a lengthy face to face clinical interview with the patient or without perusal of the patient's medical files. However, as mentioned in Cernovsky et al. [4, 5], the diagnosis of cerebral concussion is missed frequently by both frontline physicians and psychologists, including many of those who serve as "experts" to evaluate the post-MVA health claims. Some are not yet even aware that concussions do occur often without any visible external head injuries. In the MVAs, the sudden major deceleration or acceleration makes the grey and white layers of brain tissue slide over each other due to their difference in mean weight per cubic centimeter during the coup and then again during the contrecoup. This results in some axonal shearing with subsequent neurotoxicity and in microvascular trauma. The famous neuropathological studies by Bennett Omalu [15, 16] and of his peers [17] demonstrated that such cerebral damage occurs with repeated impacts in players of the American football, i.e., in men experiencing less intense impacts than patients did in MVAs.

Case Presentation

Case #1

The first case is a 24 year old university student referred by her personal injury lawyer. Her MVA occurred while she drove her Honda Civic on an expressway. A transport truck collided into the driver's side of her car in a manner which moved her car in front of the truck. Her car was then pushed, with repeated impacts, in front of the transport truck, until it was eventually pressed against the guardrail. The student sustained bruises and her head was hit by the deploying airbag. Although she retrospectively indicated that she did not lose consciousness, a brief loss or a temporary decrease in the level of consciousness is known to occur without the patients even noticing it.

The police, an ambulance, and firefighters arrived to the scene. The patient's Honda was only about 2 year old, but was damaged so extensively that it was later on deemed not worthy of repair. The lady was

transported by ambulance to a hospital where she underwent a physical examination, was instructed to use analgesic medication, and to follow up with her family physician. She developed a headache and pain in her neck, back, shoulders, arms, and pelvis within 12 hours of her MVA. Over the subsequent weeks and until the interview by the first author of this article about 15 months later, she reported headaches and pain in her neck, back, shoulders, and arms. She obtained the total score of 40 on the Rivermead scale of the post-concussion syndrome [6], reported PTSD symptoms, severe insomnia (score of 22 on the Insomnia Severity Index [18]), and symptoms of adjustment disorder with anxiety and depression. She had no history of prior compensation claims and listed no chronic pre-existing health conditions except for bouts of anxiety. Her only previous MVA was of a minor nature, in 2011, and was not associated with injuries.

A month after her interview with the first author of this article, she was re-assessed by a psychologist contracted by car insurance. The insurance psychologist relied on the SIMS and Green's test to conclude that, "*on the SIMS, her results showed her to have a significant degree of symptom exaggeration with elevations across four of the five subscales, but especially of atypical symptoms of neurologic and memory impairment*" and indicated that her "*results on the NV-MSVT showed poor effort and an exaggeration of her cognitive difficulties. The results show a discrepancy between her self-report and her observed behaviours raising issues of reliance on her self-report in the assessment and on other measures.*"

This psychologist flatly dismissed the patient's reports of symptoms to him, during his assessment, of intermittent back and neck pain, frequent headaches, sleep disruption by pain, memory problems, panic attacks, and anxiety when again in cars: "*The test results suggest that her presenting complaints are not real or to the degree that she has presented them. Whether this misrepresentation of symptoms is conscious or unconscious is impossible to determine. However, it would appear that she does not have an objectively confirmed psychological problem as a direct result of the accident that is preventing her from carrying on her life as she had before the accident.*"

That insurance psychologist completely failed to assess signs of the post-concussion syndrome, other post-MVA neurological symptoms, or even the PTSD, even though these are very obviously consistent with the nature of that particular MVA. After reading a report by another psychologist on the presence of such symptoms in that particular university student, the insurance psychologist flatly dismissed them in a cavalier manner as not being supported by "*validity testing*," (presumably by instruments such as SIMS or Green's test), and stated that "*psychological testing found no valid and objective evidence of her having any significant and diagnosable accident-related psychological disorder*" and "*from a psychological perspective, there is no valid and objective evidence to suggest that she reaches criterion for a DSM-5 diagnosis as a result of the subject motor vehicle accident.*"

He failed to consider that this patient's MVA was in a physical context of a frightening nature, very likely to be followed by a diagnosable PTSD.

Case #2

A 50 year old lady was the back seat passenger in a Hyundai driven on an expressway. The Hyundai skidded on a water covered roadway and collided twice into a roadside barrier. She was jolted by these impacts, hit her head on the headrest and car window, and subsequently felt confused and dizzy (possible signs of cerebral concussion). The Hyundai was no longer drivable and had to be towed away. Within the first 16 hours after the MVA, the patient reported a headache and pain in her neck, back, right shoulder, right arm, right leg, and in her pelvis: these symptoms intensified over the next weeks. The pain in her right arm caused special problems because she is right-handed. When assessed almost 2 years later, she still reported headaches and pain in her neck, back, shoulders, arms, legs, knees, and in her pelvis. She endorsed the following post-concussion symptoms on the Rivermead: fatigue, headaches, nausea, impaired concentration, slow speed of thinking, impaired memory, oversensitivity to loud noise and to bright lights, blurred and double vision, and dizziness. Her other post-MVA neuropsychological symptoms included tinnitus, impaired body balance, hand tremor, some loss of bladder control, difficulties articulating words, the syndrome of word finding difficulty, stutter, instances of loss of muscular control over some of her limbs, and also tingling, numbness, and some loss of feeling in some limbs. She also reported severe insomnia (possibly related to persistent pain), high levels of anxiety and depression, PTSD symptoms related to her MVA, and driving anxiety. Prior to her MVA, she was employed as a laborer in a warehouse, but stopped working since her MVA due to her post-MVA symptoms. Her symptoms seemed consistent with the physical nature of her MVA.

When the insurance hired psychologist (the same psychologist as in the first case history) assessed her a few months after the MVA, she reported to him dizziness, headaches, pain, and memory problems. The psychologist administered his usual battery including the SIMS and Green's Test, and reported that, on the SIMS, her scores *"showed her to have a significant degree of symptom exaggeration with elevations across four of the five subscale of a typical symptoms*" and that on the Green's test, her results "*showed poor effort and an exaggeration of her cognitive difficulties.*"

The psychologist concluded boldly, but rather recklessly, that her "*results provide no evidence to support any subjective complaints. If anything, the results suggest a lack of effort on her part, an exaggeration of her complaints, some underlying motivation for her complaints that was not being disclosed or of which she may not even be aware.*"

Discussion

Psychologists contracted by car insurance to assess a patient are more likely to be hired again if reporting that the patient malingered: this implies savings for the car insurance, at least in the short term. In the long run, the recovery may be irreversibly impeded by delays of treatment, with adverse impact on the patient's re-employability and the cost to society.

In the eyes of the rejected patients and their families, such conscious or unwittingly deceptive acts by psychologists undermine the public credibility of psychology as a profession. The SIMS detects malingering without false positives only when it is not applied to legitimate medical patients. Since there is no practical ethical use for SIMS in clinical or forensic psychology except (an unnecessary use such as in research studies) on patients indubitably already proven healthy, its commercial sales seem presumably almost exclusively directed at psychologists, who are at least partly motivated to reject the patient's claims of medical symptoms or at clinicians, who are misled into its purchase by the incorrect or conveniently vague marketing statement (on PAR website, still on March 8, 2019), that the SIMS "demonstrates sensitivity, specificity, and efficacy across both simulation and known-groups designs with honest responders, psychiatric patients, and clinical malingerers."

While the SIMS is unlikely to miss "true malingerers," it fails to correctly classify patients with legitimate medical symptoms. Even in other groups than MVA patients, such as persons involved in industrial accidents or patients in forensic settings, the use of SIMS may produce blatantly false results. For example, it is not uncommon for convicts to have had numerous head injuries from fights or reckless accidents, injuries of the type usually associated with cerebral concussion: their notorious irritability, impatience, and restlessness could be a part of the post-concussion syndrome. They may thus easily accumulate many points towards the SIMS cut-offscore> 14 due to their potentially legitimate neuropsychological symptoms, i.e. their legitimate medical complaints may be then naively dismissed as "faking" and remain untreated.

Conclusions

The SIMS is used on the false premise that its items deal only with "atypical symptoms," those unlikely to be endorsed by persons with legitimate medical problems. In fact, many of SIMS items describe symptoms typically reported by survivors of car accidents who are then iatrogenically misclassified as malingerers by their SIMS cut-off scores. The SIMS has never been properly validated on medical patients with post-MVA symptoms or even on other groups of medical patients.

Unless it is validated on criterion groups of medical patients with legitimate symptoms (such as supported by MRIs or similar diagnostic techniques) to preclude unacceptable rates of false positives, the SIMS use on real medical patients is ethically reprehensible. The SIMS must be first validated for each diagnostic group on which it is to be subsequently used in routine clinical assessments, especially if these assessments are done in legal contexts and result in rejection of compensations claims, or denials of treatments or the disability status.

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