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Malingering in the Medical Setting

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"Malingering" is defined as the conscious feigning, exaggeration, or self-induction of illness (either physical or psychological) for an identifiable secondary gain [1]. In the medical setting, that secondary gain can be diverse, including the receipt of monies (legal settlements or verdicts, worker's compensation, disability benefits); the procurement of abusable prescription medications, such as opioids or benzodiazepines; the avoidance of unpleasant work or military duty; or simply access to a warm, dry hospital bed. In other cases, the incentives can be more subtle, such as avoidance of onerous household responsibilities. Malingering is distinguished from factitious disorder by its motivation: in clear-cut cases, the malingerer consciously falsifies or induces illness or symptoms for a specific purpose that is identifiable, once details of the malingerer's life are known. In contrast, in factitious disorder, symptom production is conscious for a primary gain: the assumption of the "sick role" [2]. The reasons that the individual desires the sick role are presumably primarily unconscious [3]. In psychiatry, malingering of mental illness is often suspected in both criminal and civil cases, where the secondary gain can be substantial [4,5]. As noted, malingering in the medical setting has not been studied as extensively. This article discusses the various disorders most commonly malingered in the medical setting, the frequency of such malingering, methods for detection, and finally, recommendations for intervention.

CLASSIFICATION

Diagnostic confusion between malingering and mental disorders, particularly factitious disorder, can be traced to Asher's [6] original description of

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Munchausen syndrome. Asher attributed several possible motives to Munchausen syndrome, including "a desire to escape from the police" and "a desire to get free board and lodgings for the night" (339), motives that would now clearly be classified as malingering. The tendency to include malingering within the factitious disorder spectrum was further reinforced by Spiro [7], who recommended that in individuals with Munchausen syndrome, "malingering should only be diagnosed in the absence of psychiatric illness and the presence of behavior appropriately adaptive to a clear-cut long-term goal" (569). Thus, according to Spiro, an individual with a psychiatric disorder of any type cannot be deemed a malingerer. There are, however, many examples of patients with factitious disorder who also malinger [8]. Eisendrath [9] described three such individuals, all of whom entered into civil litigation as a result of their feigned physical illnesses. In each case, it appeared that the feigned illness was intended to allow the individual to assume the sick role and only later was used to pursue financial incentives.

The term "malingering by proxy" has been suggested [10] for those cases in which illness is fabricated in a child for secondary gain–for example, for the purpose of obtaining social assistance benefits [11]. The literature contains several case reports of parents who report, or induce their children to report, disability for the purpose of litigation and ultimately remuneration [12,13].

Various types of malingerers have been identified. As described by Resnick [14], their behaviors can include pure malingering, partial malingering, and false imputation. In pure malingering, the individual is fabricating a condition that does not exist and has never existed. In partial malingering, the individual is exaggerating symptoms that actually exist. False imputation refers to an individual's ascribing symptoms to a cause that is actually unrelated. For example, in personal injury litigation, an individual might claim pain from a motor vehicle accident when in fact the pain is secondary to an unrelated fall. Most detection methods target either pure or partial malingering, as the presumption in false imputation is that the symptom is real; only the source of the symptom is in question.

The Diagnostic and Statistical Manual, 4th edition text revision (DSM-IV-TR) [15] classifies malingering with a "V" code, indicating, "Other conditions that may be the focus of clinical attention." In this nomenclature, malingering is not considered to be a mental disorder. Instead, by definition it is "the intentional production of false or grossly exaggerated physical or psychological symptoms motivated by external incentives" (739). The DSM provides four guidelines for when to suspect malingering, including (1) the evaluation occurs in a medico-legal context, (2) a discrepancy exists between the person's claims and objective findings, (3) the individual is uncooperative during the diagnostic evaluation and is noncompliant with the prescribed treatment regimen, and (4) antisocial personality disorder is present. However, many experts consider this definition overly broad and inclusive, leading to the risk of overidentification of patients as malingerers. For example, Rogers [16] noted that use of these

guidelines as criteria for detecting malingering (ie, an individual who meets two of the four criteria) leads rather impressively to the correct classification of approximately two-thirds of true malingerers. However, he determined that this strategy led to the overclassification of true psychiatric patients as malingerers. Rogers concluded that persons meeting two of the four DSM-IV-TR criteria have only a one in five chance of being true malingerers. An 80% false positive rate is inordinately high and generally considered unacceptable.

Rogers [17] described three models to explain the underlying motivation of an individual who malingers: the pathogenic model, the criminological model, and the adaptational model. Although the pathogenic model no longer receives general support [18], it warrants an historical discussion. In this model, the malingerer's motivation is based on true pathology. The production of symptoms is postulated to be an effort to gain control over real symptoms. The eventual outcome is the replacement of feigned symptoms with real ones. However, research has not shown this prediction to hold true [19]. The criminological model presumes an underlying "badness" of the malingerer and is based on the DSM suggestions for when to be suspicious of malingering. As Rogers [20] noted, "a bad person in bad circumstances (legal difficulties) who is performing badly (uncooperative)" (7) is considered highly likely to malinger in the criminological model. Finally, the motivation can be understood within the adaptational model, wherein the malingerer evaluates the cost-benefit of his or her options. In this model, malingering may be more likely under three circumstances: (1) when the context is adversarial, (2) when the personal stakes are high, and (3) when there are no viable alternatives. An individual feigning mental illness when faced with a life sentence is an example of this model. It is important to note that these models only provide explanations for the behavior; they are not intended as prescriptions for the detection of malingering.

In a study evaluating the correlates of malingering, Sierles [21] asked 172 Veterans Administration patients and 160 medical students, a control group, to complete a questionnaire designed to assess the frequency and potential indicators of malingering in various types of patients. The sample included patients from acute medical, surgical, psychiatric, substance dependence, and alcohol detoxification services. The questionnaire contained a list of 59 problems; the individuals were asked if they had ever reported any of these as problems for which a physician could find no organic basis, and a malingering index score was calculated. An individual was considered to have a pattern of medically unexplained symptoms if 20 or more items from the list were endorsed. In addition, Sierles included items that were indicative of the respondent's being sociopathic. He found that being a sociopath and having a drug or alcohol diagnosis increased the likelihood of malingering. The study revealed that, of the individuals evaluated, medical and surgical patients were the least likely to admit ever to having malingered; they received a malingering index score even slightly lower than that of the medical students.

DIFFERENTIAL DIAGNOSIS

There are five conditions from which malingering must be differentiated: undetected physical pathology, three of the somatoform disorders, and factitious disorder.

Undetected or Underestimated Physical Illness

Malingering, like somatoform disorders and factitious disorder, is a diagnosis of exclusion. Patients who present with unexplained somatic complaints may actually have an illness that is not detected during an initial evaluation, or even with subsequent testing. Physicians may be inclined at that point to presume the patient is malingering. While it may be nearly impossible to rule out every conceivable occult physical pathology that is responsible for the presentation of a patient who might be malingering, physicians should reasonably consider whether the evaluation has been adequate. Further testing must be balanced with the possibility of a nonorganic etiology, as physicians can engender serious iatrogenic problems by overtesting and overtreating. A rule of thumb is to seriously consider and evaluate malingering before advancing to highly esoteric physical diagnoses.

Pain Disorder and Somatization Disorder

Cases of pain disorder involve persistent complaints of pain that are not accounted for by tissue damage. Somatization disorder cases involve chronic, unpleasant symptoms (often including pain) that appear to implicate multiple organ systems. In both, it is presumed that the patient actually experiences the pain he or she is reporting. The pain complaints may covary with psychological stressors. Unlike malingering, the pain reported in these disorders is not under conscious control, nor is it motivated by external incentives. However, there are no reliable methods for affirmatively establishing that pain and other complaints are unconscious and involuntarily produced [22].

Hypochondriasis

Hypochondriasis is diagnosed in patients who unconsciously interpret physical sensations as indicative of serious disease. The patient may present with minor pains that he or she fears indicate some unrecognized, potentially life-threatening illness. These patients are eager to undergo diagnostic evaluations of all kinds. In contrast, the malingerer is often uncooperative with the diagnostic process and, unlike those with hypochondriasis, is unlikely to show any relief or pleasure (albeit temporary) in response to negative test results. When hypochondriac patients do simulate or self-induce illness, the deceptions reflect a desperate need to convince physicians to perform further tests [22].

Factitious Disorder with Predominantly Physical Signs and Symptoms

As in malingering, factitious physical disorders involve the feigning, exaggeration, or self-induction of medical illness. However, the fraudulent complaints cannot be adequately explained by external incentives. Rather, the factitious disorder patient will welcome the chance to undergo medical and surgical procedures–including those that most people would seek to avoid–because they

find the sick role intrinsically gratifying. Malingerers, conversely, seek to minimize medical contacts through which their deceptions might be uncovered.

EPIDEMIOLOGY

While almost any medical illness can be malingered, there is evidence that certain types of medical problems are more likely to be malingered than others. In a study of over 30,000 cases referred to 144 neuropsychologists, the most likely ailment to be malingered was mild head injury, followed by fibromyalgia or chronic fatigue syndrome, pain, neurotoxic disorders, electrical injury, seizure disorders, and moderate or severe head injury [23]. In another report, malingerers more commonly presented with cervical pain and repetitive strain injuries, accessing general practitioners, rheumatologists, neurologists, and orthopedic and hand surgeons [22]. These differences are likely reflective of the types of individuals surveyed: neuropsychologists are more likely to evaluate individuals referred for head trauma, while general practitioners are more likely to be contacted for pain complaints.

Just as the frequency of malingered mental illness varies depending on the context (ie, criminal, civil, or military evaluations), estimates of malingering in the medical setting vary considerably. For example, in a study surveying 105 board-certified orthopedic surgeons and neurosurgeons from six states, estimates of the percentages of their patients with low back pain who were malingering varied widely, from a low of 1% to a high of 75% [24]. However, the majority of the surgeons made low estimates, with 78% indicating that 10% or fewer of their patients malingered their pain. Factors that surgeons most strongly considered in making their estimates were not in fact related to secondary gain, but were more closely associated with inconsistencies in the medical examination. The two inconsistencies most frequently cited as suggestive of malingering were weakness in the exam not seen in other activities, and disablement disproportionate to the objective findings. Other studies suggest that the incidence of malingered pain is significantly higher. For example, estimates of malingering range from 25% to 30% for fibromyalgia cases [25], with similar results found for patients malingering chronic pain [26].

The literature also contains inconsistencies regarding the incidence of malingering in mild head trauma, with some authors suggesting that malingering is common [27–29] and others suggesting that it is rare [30]. Rogers [31] estimated that approximately half of the individuals evaluated for personal injury claims were feigning all or part of their cognitive deficits. In a meta-analysis of the effect of financial incentives on neuropsychological symptoms, Binder and colleagues [32] reaffirmed that compensation is critical. Their results indicated that more abnormalities and disabilities were reported in patients with financial incentives, even if injuries were less severe. The highest rates of malingering of medical illness appear related to personal injury litigation, worker's compensation, or disability claims [23]. For example, Greiffenstein and colleagues [33] found a 37% base rate of malingering in individuals with mild head injury who were seeking compensation of some sort. Along these lines, several studies

have indicated that patients with milder injuries or fewer symptoms were more likely to seek compensation [34,35]. Symptoms appearing long after the alleged injury—which have been shown to be less likely to have an organic etiology [36]—occurred more frequently in patients pursuing financial compensation. Similarly, a shorter duration of amnesia was correlated with failure to return to work. Larrabee [37], in a review of 11 studies, found a prevalence rate of malingering of 40% in 1,363 patients who were seeking compensation for a mild head injury. Various signs were suggested as indicative of the possibility of malingering, including a severity of impairment that is inconsistent with mild trauma, discrepancies in the records, inconsistencies in self-report versus observed behavior, and implausible self-reported symptoms. In support of these detection strategies, Binder and colleagues [38] found that 95% of authentic mild head trauma cases evidence no impairment three months after the trauma.

In the aforementioned study of 144 neuropsychologists [23], estimates of malingering varied by referral type. When the referral was made secondary to a personal injury claim, estimates of malingering were 30%; for disability or worker's compensation cases, estimates were as high as 33%. Malingering was estimated in 23% of individuals facing criminal cases. In contrast, the estimate was only 8% for cases without any known external incentive. When patients were in litigation, the neuropsychologists estimated that 41% referred for mild head injury were malingering, as compared with 37% for fibromyalgia and 33% for pain. They also determined that when patients were referred by defense attorneys for civil cases, estimates for malingering were even higher. These results suggest that, in contrast to malingered mental illness, which more often occurs in the context of criminal charges to reduce or eliminate sentencing, the malingering of physical illness is substantially related to financial incentives.

DIAGNOSIS

In addition to the office or hospital, malingerers also often present to emergency departments or urgent care centers, generally "doctor-shopping" if their initial efforts to procure secondary gain (ie, abusable medications for their own use or for resale) are unmet by the physicians seen initially. When pursuing drugs, they may report an unusually large number of drug allergies to steer the physician toward prescribing their drug of choice, or simply insist on a specific product, such as meperidine (Demerol).

The malingerer who seeks to avoid an immediate predicament might feign an acute problem, while those seeking a permanent disability judgment will feign a subacute medical problem that is recognizable to the examiner when the malingerer's stressors are known [22].

Physicians are trained to assess and treat individuals who actually have medical or mental health symptoms. A health care provider's natural inclination—one reinforced by education and training—is to accept the person's reported symptoms at face value. Rosenhan [39] conducted a famous study that demonstrated clinicians' tendency to blindly accept reported mental health

symptoms. In this study, eight nonmentally ill individuals presented to a psychiatric hospital alleging that they were hearing very atypical voices. Based on this one reported symptom, every person was admitted to the hospital and given a diagnosis of schizophrenia, even though each person ceased reporting any symptoms after admission.

Clinicians should be aware that malingering for compensation of various types may be unplanned. The patient may seize upon an incidental workplace or motor vehicle accident as a fortuitous opportunity for financial gain. It also appears, at least anecdotally, that there is an increased frequency of disability claims in families in which a family member has already been declared disabled.

Citing Hamilton and Feldman [22], "it is against [the malingerer's] interests to acknowledge any improvement in their condition or even any palliative effects of medicine, corrective surgery, or physical therapy. The one exception to this may be in cases of sophisticated patients who admit to partial or temporary relief of pain to enhance their credibility" (448).

Eisendrath, Rand, and Feldman [40] offered a list of potential correlates of illness deception (Box 1). However, their validity and reliability have not been formally researched.

DETECTION OF MALINGERED PAIN

The detection of malingered pain is often extremely difficult, in large part because the experience of pain is so subjective [41,42]. Additionally, as is so often cited for malingered mental illness, it is much easier to malinger that with which you have had experience.[1] It is relatively easy to malinger pain because everyone has had the experience of pain and therefore knows how it should appear to others. Hamilton and Feldman [22] note that the malingerer's pain complaint "will vary according to the medical sophistication of the patient; they may present with diffuse pain, or patterns of pain that are not consistent with known medical conditions or with the anatomy of the peripheral nervous system" (444-5). In particular, these cases may present as specific maladies, such as repetitive strain injury or variable limb pain (ie, in reflex sympathetic dystrophy, fibromyalgia, or chronic fatigue syndrome), though the bulk of the literature has focused on low back pain or pain related to the cervical and thoracic spine (especially whiplash injuries). The malingerer commonly knows the characteristics of the pain associated with the condition he or she is feigning. One unfortunate result of the wide availability of high quality medical information on the Internet is that malingerers now have abundant guidance on how to convincingly display pain and disability [22].

There are no objective laboratory tests that allow examiners to independently quantify pain without the use of patient self-report. Although initially thermography was considered to be promising as an independent method for evaluating pain, it has fallen out of use because it was shown to be

[1]Although technically, Resnick would describe this phenomenon as partial malingering.

Box 1: Potential indicators of malingering

1. The signs and symptoms do not improve with treatment. There is escalation of symptoms, relapse, or new complaints apparently in the service of keeping the caregivers engaged.
2. The magnitude of symptoms consistently exceeds what is usual for the disease or there is evident dishonesty about the presentation of symptoms.
3. Some findings are determined to have been self-induced, or at least worsened through self-manipulation.
4. There are remarkable numbers of tests, consultations, and treatment efforts, to no avail.
5. The individual disputes test results that do not support the presence of authentic disease.
6. The individual accurately predicts physical deteriorations.
7. The individual ''doctor shops'' and has sought treatment at an unusual number of facilities.
8. The individual emerges as an inconsistent, selective, or misleading source of information.
9. The individual refuses to allow the treatment team access to outside information sources.
10. There is a history of so many medical treatments for secondary problems that the impression is created that the individual must be astonishingly unlucky. (This ''black cloud'' phenomenon may strain credulity to the breaking point.)
11. Deception is explicitly considered by at least one health care professional, if evidenced merely by a brief chart entry.
12. The individual does not follow treatment recommendations and is intensely disruptive.
13. The individual focuses on his or her self-perceived ''victimization'' by medical personnel and others.
14. There is consistent evidence from laboratory or other tests that disproves information supplied by the individual.
15. The individual has had exposure to a model of the ailment they are falsifying (eg, a relative with a similar ailment).
16. Even while pursuing medical or surgical assessment, the individual vigorously opposes psychiatric assessment and treatment.
17. During interviews, the individual makes statements to strengthen his or her case that nevertheless contradict the records.
18. There is evidence for external incentives for illness or incapacity.

Adapted from Eisendrath SJ, Rand DC, Feldman MD. Factitious disorders and litigation. In Feldman MD, Eisendrath SJ editors. The spectrum of factitious disorders. Washington (DC): American Psychiatric Press, Inc., 1996. p. 65–82; with permission.

nonspecific [43]. While the self-report Minnesota Multi-Phasic Personality Inventory, 2nd edition (MMPI-2) [44] has been used with considerable success in identifying malingering of mental illness [45], it is less effectively used with malingered medical illnesses. However, in one study [46], MMPI-2 profiles were compared between pain patients who were and were not involved in litigation. The investigators found that pain patients in litigation endorsed more obvious and fewer subtle items. They found inconsistent support for using the "Conversion V" as an identifier of litigants. These results provide modest support for the use of the MMPI-2 in the detection of malingered pain. However, although many patients in litigation are also malingering, the two groups may not be identical in regards to psychological profiles.

The Symptom Checklist-90-Revised (SCL-90-R) [47], a self-report checklist containing 90 items targeting a wide range of psychological problems, also has been used to identify genuine pain patients. In a simulation study, Wallis and Bogduk [48] found that, consistent with research on the simulation of mental illness, patients who malinger pain frequently "overendorse" symptoms. Simulators scored significantly higher than true whiplash patients on all SCL-90-R subscales.

In a study designed to evaluate the effectiveness of three scales in identifying malingerers, Larrabee [49] found that one instrument, the Modified Somatic Perception Questionnaire; [50], distinguished malingerers from nonmalingerers with a sensitivity and specificity of 0.90. In a series of simulation studies, McGuire and colleagues [51] evaluated the effectiveness of using the Pain Patient Profile (P3); [52] in identifying malingerers. The P3 contains three clinical scales: depression, anxiety, and somatization, as well as a validity scale. They found that simulators were more likely to score above a t-score of 55 on all three scales, although the depression scale had the highest positive and negative predictive power. The investigators concluded that this instrument shows promise in the detection of malingered pain, though the inventory and its use require more study.

Several studies have been designed to evaluate whether facial expressions of pain are useful in identifying simulators. Various investigators have found that judges consistently ascribed higher levels of pain to simulators, even when given feedback or advance warning [53,54]. Thus, attempting to detect malingering by evaluating the degree of the patient's pained expression appears fruitless.

Regarding physical examinations, expected signs of injury or disease will be absent or inadequate to account for the patient's reported degree of pain. Because they are still commonly applied, "Waddell signs" will be mentioned. In the 1980s, Waddell indicated that certain signs were suggestive of nonorganic pain or "illness behavior" [55,56]. These signs were divided into five general categories, including tenderness, simulation, distraction, regional, and overreaction. Table 1 presents the complete list of signs. Since being published, these signs of illness behavior have often been viewed as suggestive of malingering. However, in a review of the literature on this point, Fishbain and colleagues [57] found inconsistent evidence. In one study, Waddell signs were

Table 1
Waddell signs

Category	Sign
Tenderness	Superficial skin tender to light touch
	Nonanatomic deep tenderness not localized to one area
Simulation	Axial loading on skull induces lower back pain
	Shoulder and pelvis rotated in same plane induces pain
Distraction	Difference in straight leg raising in supine versus sitting position
Regional	Many muscle groups evidence weakness
	Sensory loss in stocking or glove distribution
Overreaction	Disproportionate facial or verbal expressions

associated with poorer outcomes, but the signs did not discriminate organic from nonorganic pain [58].

In a review examining various physical tests of malingering [58], including Waddell signs, the investigators found support for using two (of the seven described) for detecting nonorganic symptoms. The two for which the investigators found consistent support were both for detecting nonorganic paralysis. The Hoover's test [59] and the abducter test [60], both of which involve manipulation of the legs, show promise in detecting malingered leg paresis. In an article written for family physicians, Kiester and Duke [61] offered additional suggestions for detecting malingered pain including, for example, checking shoes for uneven wear in patients limping into the office; manual laborers claiming inability to work but having callouses, dirt, or lacerations on their hands; and patients who do not injure themselves upon fainting or collapsing. The reader is also referred to the groundbreaking and colorful books on malingering by Gavin [62] and Collie [63], in which other clues to malingering, many still viable, are presented.

DETECTION OF MALINGERED HEAD TRAUMA

While pain is ubiquitous, fortunately head trauma and subsequent cognitive deficits are relatively uncommon. As a result, the associated patterns of test results expected from certain central nervous system injuries may be less well known to the casual observer. Thus, standard neuropsychological assessments can be useful in identifying individuals who exaggerate such deficits. Various instruments have been developed to detect this type of malingering.

The assessments of malingered head trauma and related cognitive deficits fall into six general types of detection strategies [31]: the floor effect, performance curve, magnitude of errors, symptom validity testing, atypical presentation, and psychological sequelae. The floor effect refers to the inability of individuals to perform extremely simple tasks. The Rey 15-item memory test [64] is an example of such an assessment. This test requires that individuals remember a set of 15 letters, numbers, and geometric shapes that are in fact quite simple. Individuals attempting to malinger memory deficits often miss more than truly impaired individuals do because of their efforts at deception. The performance curve strategy is based on the supposition that malingerers do not distinguish between easy and difficult items. Thus, their performance curve can be compared with those of individuals with true deficits and discrepancies noted. The Validity Indicator Profile [65] is an example of this strategy. The magnitude of errors method is derived from research indicating that malingerers give larger numbers of near misses and grossly wrong responses to standardized tests [66]. Symptom validity testing requires a forced choice assessment (ie, the patient must choose between two or more responses). Response rates below chance are indicative of malingering. The Victoria Symptom Validity Test [67] is an example of this type of assessment. Atypical presentation occurs when the response patterns exhibited are significantly different from those of true patients. The primary limitation of this method of detection is that nonmalingerers can sometimes exhibit this pattern. For example, in a simulation study using the Bender Gestalt [68], standard scoring did not identify malingerers from nonmalingerers. However, in this study, a forensic psychologist was able to identify simulators with 100% accuracy. The final method is psychological sequelae and is based on research that suggests that individuals malingering medical illnesses are likely to exaggerate psychological symptoms as well [69–71].

Recently, response time has been proposed as an additional strategy. Resnick [72] theorized that increased response latency may occur for two reasons: simulators may overestimate the response time in individuals with a true traumatic brain injury, and latency may be increased secondary to the time it takes a malingerer to decide on an appropriate (wrong) response. Several investigators have examined this strategy with inconsistent results. For example, Rees and his colleagues [73], on the Test of Malingered Memory (TOMM), found that simulators have longer reaction times on correct responses. Strauss and colleagues [74,75] found that reaction time was longer on a symptom validity task in simulators (as compared with controls) and that this difference was more pronounced with more difficult items. In contrast, Rose and colleagues [76] found that controls and simulators had the same reaction time to a digit recognition test. However, the combination of response latency and number of correct responses improved the discriminating ability of the test.

Several authors have provided guidelines for when to suspect malingering of cognitive deficits. Greiffenstein and colleagues [77] indicated that the examiner should suspect malingered memory deficits under the following circumstances: (1) poor performance on two or more standard neuropsychological

assessments, (2) complete disability in a social role, (3) inconsistency between reported symptom history and other sources of information, and (4) remote memory loss. Pankratz and Binder [78] suggested seven behaviors that are indicative of malingering and require further exploration. The first and foremost is dishonesty: if patients misrepresent details of their lives, they may also be misrepresenting their symptoms. Additionally, the following six are suggestive of malingering: (1) inconsistency between reported and observed symptoms, (2) inconsistency between physical and neuropsychological findings, (3) resistance to or avoidance of standardized tests, (4) failure on measures designed to detect malingering, (5) functional findings on medical examination, and (6) delayed cognitive complaints following trauma.

Faust and Ackley [79] also suggest six behaviors that are indicative of feigned cognitive deficits: (1) poor effort, (2) exaggerated symptoms, (3) production of nonexistent symptoms, (4) distortion of history regarding symptoms, (5) distortion of premorbid functioning, and (6) denial of strengths. Slick and colleagues [80] have proposed a much more complicated schema for the detection of malingered cognitive deficits, which includes four criteria, designated as Criteria A through D. Criterion A is the presence of financial incentive. Criterion B includes evidence of exaggeration on neuropsychological tests. Criterion C includes evidence of false or exaggerated self-report, and Criterion D is that both criteria B and C cannot be accounted for by psychiatric, neurological, or developmental factors. An individual can be considered a "probable malingerer" when Criterion A is met and two or more items (of a list of six) are met from Criterion B or one from B and one from C (of a list of five). Possible malingering is defined as the presence of Criterion A plus two (or more) items from Criterion C. More simply put, these investigators believe that self-report evidence (other than an admission of malingering) is only suggestive of malingering; evidence of malingering on standard neuropsychological testing is necessary to be more definitive.

In a recent survey of neuropsychologists who consistently practice in the area of compensation claims [81], more than 45% indicated that they routinely use the TOMM [82], and more than 33% indicated that they use the Rey 15-item Test [64]. As suggested, both instruments were designed specifically for the detection of malingering. Other specialized tests were used with less frequency. An exhaustive list of instruments developed for the purpose of detecting malingered cognitive deficits is beyond the scope of this article. However, Table 2 provides a list of the more commonly used assessment tools and many more are discussed by Pope at http://www.kspope.com/assess/malinger.php. Most of these instruments require administration by a psychologist with specific training.

OTHER MALINGERED ILLNESSES

While pain (ie, lower back pain, cervical pain–primarily from whiplash injuries–and fibromyalgia) and mild head injury (including associated cognitive

Table 2
Selected memory and cognitive tests

Memory tests	Ease of administration	Brief description
Victoria Symptom Validity Test	Requires training	Computer administered, forced choice; 24 easy, 24 difficult items, response time also recorded
Rey 15-item	Simple	15 different items shown, told to reproduce as many as can
Test of Memory Malingering (TOMM)	Requires training	2 alternative forced choice, 50 target pictures, recognize from 50 presentations of 2 pictures
Portland Digit Recognition Test	Requires minimal training	72 items, 26 easy, 36 hard; verbal presentation of 5-digit number, 5, 10 & 30 sec. delay
Digit memory test	Requires minimal training	3 blocks of 24 5-digit numbers; forced choice with 5, 10 & 15 sec. delay
Reliable digit span	Requires training on Wechsler Adult Intelligence Scale (WAIS-III)	Based on WAIS-III digit span subtest; sum longest string of digits passed on both trials forward and backward
Word Completion Memory Test (WCMT)	Requires training	2 subtests: Inclusion (30 items), Exclusion (30 items); copies and rates words; is a priming task
Word Memory Test (WMT):	Requires minimal training	20 linked word lists; oral and computerized version
Other cognitive deficits	**Ease of administration**	**Brief description**
Validity Indicator Profile	Requires training	100 problems assessing nonverbal abstraction; 78 word definition problems; 2 alternative forced choice
Cognitive behavioral driver's inventory	Requires training	10 tasks in part adapted from other instruments; requires specialized equipment
Computerized assessment of response bias	Requires training	Computer administered; 25 trials of 5-digit string; response time also recorded

deficits and memory loss) are the most common medical illnesses feigned, the literature reveals various other illnesses that may be malingered. For example, both cognitive deficits and psychological sequelae are frequently attributed to toxic exposures, especially because the injuries related to such exposure may be ambiguous [83]. Psychogenic seizures are another ailment identified in some malingering investigations. In a study of psychogenic seizures, Abubakr and colleagues [84] found that almost 22% of the patients were malingering and all but one had financial incentives to do so. Similar results were found by Cragar and colleagues [85]. Huang [86] even reported a case of an individual malingering HIV illness to obtain housing.

While malingering can occur in any setting for multiple reasons, malingering in the medical setting is often associated with financial incentives. As indicated, the detection of malingering can be complex and may involve specialized testing. However, the hallmark of malingering is the inconsistency between reported symptoms and collateral reports, observed behaviors, and physical and psychological assessments.

TREATMENT

When a determination of malingering is made, the clinician is faced with the dilemma of how to "treat" a nondisorder. Depending on the situation, the clinician may elect to confront the individual with the assessment. Pankratz and Erickson [87] emphasize the importance of permitting the malingerer to save face. Kiester and Duke [61] recommend explaining to patients that they do not have a serious problem and that deterioration is not expected. They also recommend assisting in replacing the patient's illness behavior with other, more psychologically healthy behaviors. However, these interventions are predicated on a certain level of psychological health. When there are substantial secondary gains, such as large sums of money, such interventions may well be ineffective. In these cases, referral to a mental health professional also may be fruitless. In some cases, though, such a referral facilitates an exploration of some of the psychological or social deficits for which the patient compensates through his or her malingering.

Any attempted management of malingering must first be based on an understanding of the motivations for symptom production [88]. Blatant malingering may arise from the same types of enduring personality traits that are observed in antisocial personality disorder (ASPD), such as a tendency to manipulate others for personal gain. A number of other psychological problems—some viewed as treatable and others as refractory, such as ASPD—may contribute to the drive to malinger. These problems include anxiety, depression, and other personality disorders more amenable to intervention. Treatment of these underlying or coexisting mental disorders may reduce the patient's self-perceived need to malinger.

Overall, management of milder forms of malingering may benefit from the kinds of interventions advocated for factitious disorder [89]. They are beyond the scope of this article. It is important to note, however, that caregivers'

aversion to malingering can translate into overly harsh confrontations and dismissals from further care. Consistent with the face-saving strategies noted, a nonconfrontational approach can allow the patient to relinquish the complaints without admitting that symptoms have been falsified.

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