Received: 20 June 2023 | Revised: 8 January 2024 | Accepted: 22 January 2024

DOI: 10.1002/bsl.2651

RESEARCH ARTICLE

WILEY

# Forensic assessment of somatoform and functional neurological disorders

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## Abstract

Functional neurological disorders (FND) and somatization are common in clinical practice and medicolegal settings. These conditions are frequently disabling and, if arising following an accident, may lead to claims for legal compensation or occupational disability (such as social security disability insurance). However, distinguishing FND and somatization from symptoms that are intentionally produced (i.e., malingered or factitious) may pose a major forensic psychiatric challenge. In this article, we describe how somatoform disorders and FND lie along a spectrum of abnormal illness-related behaviors, including factitious disorder, compensation neurosis, and malingering. We provide a systematic approach to the forensic assessment of FND and conclude by describing common litigation scenarios in which FND may be at issue. Forensic testimony may play an important role in the resolution of such cases.

**KEYWORDS**
forensic, functional neurological symptoms, legal, malingering, non-epileptic, psychogenic

## 1 | INTRODUCTION

*Functional neurological disorder* (FND) is a neuropsychiatric disorder characterized by the presence of neurological symptoms that are incongruent with those caused by a recognized neurological disease. This condition has been known by several other names throughout history, including "hysteria" and conversion disorder. For much of the 20th century, it was largely neglected by clinicians and researchers alike (Stone et al., 2008). Over the past 20 years, however, the rise of functional neuroimaging has spurred new efforts to understand the biological underpinnings of this perplexing condition (Carson et al., 2012). In this article, we discuss clinical and legal issues relevant to psychiatrists conducting evaluations of individuals with FND.

  

## 2 | CLINICAL CONTEXT

The *Diagnostic and Statistical Manual of Mental Disorders*, Fifth Edition Text Revision (DSM-5-TR) defines FND by the presence of one or more symptoms of altered voluntary motor or sensory function that is not explained by another medical or mental disorder (American Psychiatric Association, 2023). Unlike the DSM-IV diagnosis of conversion disorder, the DSM-5-TR diagnosis of FND does not require the neurological symptoms to be associated with a psychological precipitant.

Although structural magnetic resonance imaging is normal in individuals with FND (unless the person is affected by another medical condition), other neuroimaging techniques have revealed brain changes in these individuals. Across studies, abnormalities found in FND include heightened activity in the amygdala in response to emotional cues; increased connectivity between limbic, paralimbic, and sensorimotor brain regions; attentional deficits; and deficits in specific motor processes (Bègue et al., 2019). Participants with functional movement disorders show an abnormal reduction in the activation of the right temporoparietal junction, a structure known to play a role in the perception of self-agency—that is, the ability to attribute one's own actions to oneself (Voon et al., 2010). These findings could partly explain why individuals perceive functional neurological symptoms to be involuntary or outside their conscious control. However, whether these findings reflect a cause of functional symptoms or a consequence of chronic illness remains unclear.

### 2.1 | Etiological models

The causes of FND are complex and multifactorial. Notably, although a relationship between stressful life events and childhood maltreatment and FND has been reported in a systematic review, between 14% and 77% of patients deny experiencing any such adversity (Ludwig et al., 2018).

However, this finding does not completely explain how FND develops in individual patients, even in those with a history of adversity. There are several other theoretical frameworks. Brown and Reuber (2016) identified four psychological models for FND: (a) traumatic dissociation, (b) hard-wired anxious-arousal responses, (c) conversion defenses, and (d) conditioned behaviors.

These authors later proposed that functional neurological symptoms arise when a patient's attentional systems prioritize inappropriate information about physical symptoms over normal sensory data (Brown & Reuber, 2016; Reuber & Brown, 2017). These "rogue representations" may be acquired from various sources, including direct experience with illness, cultural conceptions of illness, and verbal suggestion (e.g., being told that the symptom might be serious). Voon et al. (2011) proposed that patients with FND may be unable to exert control over "previously mapped conversion motor representations" while under psychological or physiological stress, leading to the sense that their actions are involuntary. Further, according to a Bayesian account of FND, functional symptoms may result from false perceptual inferences (misinterpretation of symptoms) related to maladaptive illness beliefs (Edwards et al., 2012). Most recently, FND has been formulated as arising from deficits in allostatic energy management, interoceptive awareness, prediction processing errors, and lack of emotion concept granularity (Jungilligens et al., 2022). These models are not mutually exclusive and are each consistent with the existing data.

### 2.2 | Related behaviors

*Somatization* is the tendency to experience and communicate psychological distress via bodily symptoms. In DSM-5-TR, the DSM-IV category of somatoform disorders and the diagnosis of somatization disorder have been replaced with somatic symptom disorder. Unlike somatization disorder in DSM-IV, the DSM-5-TR diagnosis of somatic symptom disorder focuses on whether the individual's somatic symptoms are a source of disproportionate distress

or disability, not on the underlying cause of the symptoms. However, in forensic practice, such a conceptualization is unhelpful. Whether or not a patient's symptoms can be medically explained is forensically and legally relevant.

Functional somatic syndromes include irritable bowel syndrome, fibromyalgia, chronic fatigue syndrome, and persistent post-concussive syndrome. Individuals with FND may have one of these conditions or a more diffuse somatoform disorder, which should be identified and diagnosed. In their report or testimony, forensic practitioners must explain that extensive literature supports the concept of somatization (Lipowski, 1988; Kirmayer & Young, 1998; Gureje et al., 1997; Henningsen et al., 2018), despite its absence in DSM-5-TR. Furthermore, somatization can be readily assessed using psychological testing.

Somatoform and FND must be distinguished from other conditions characterized by abnormal illness behavior. These conditions include *factitious disorder*, *malingering*, and *compensation neurosis*.

*Factitious disorder* is a condition in which patients falsify or artificially produce symptoms of physical or psychological illness without having any clear external incentive for doing so (American Psychiatric Association, 2023). Patients with factitious disorder may tamper with diagnostic tests (e.g., by contaminating urine samples), self-induce injury or illness (e.g., through infection), or simulate psychiatric illness to obtain medical attention. Factitious psychiatric (as opposed to physical) illnesses are typically seen in patients with severe personality disorders.

*Malingering* is the intentional or conscious fabrication of physical or psychological symptoms to obtain an external reward (American Psychiatric Association, 2023). One common reward is monetary compensation—for instance, a disability payment. Alternatively, the patient's goal may be to avoid criminal prosecution (e.g., by feigning legal insanity) or to obtain controlled substances. Malingering differs from factitious disorder in that it is specifically motivated by the presence of an external incentive.

Finally, *compensation neurosis* is "a state of mind, born out of fear, kept alive by avarice, stimulated by lawyers, and cured by a verdict" (Kennedy, 1946). It refers to the maintenance or exaggeration of physical or psychological symptoms as a result of pending litigation. When the plaintiff is successfully awarded damages, the symptoms remit (Hall & Hall, 2012). Unlike malingering, compensation neurosis is at least partly related to internal motivators (e.g., difficulties coping with the stress of the litigation process).

In practice, malingering, somatization, conversion, factitious disorder, and compensation neurosis overlap significantly. Factitious disorder does not preclude external incentives for behavior. This is seen, for example, in the phenomenon of "Munchausen by Internet," in which patients solicit money, gifts, and sympathy for their factitious illnesses via online forums (Feldman & Peychers, 2007; Pulman & Taylor, 2012). Likewise, it is not uncommon for patients with factitious disorder to be involved in litigation related to self-induced injuries (Eisendrath & McNiel, 2002) or to seek out narcotics. However, unlike malingering, these benefits are incidental to the factitious illness behavior rather than its primary purpose.

In summary, abnormal illness behaviors exist along a continuum and often cannot be easily delineated (Bass & Halligan, 2014). The conceptualization of these behaviors has significant clinical and forensic implications.

## 2.3 | Approach to the forensic evaluation

The examiner must review all available medical and psychiatric records and establish the timeline of the claimant's illness. Work records, employee performance reviews, and any records from the time of the initial injury should be examined for the presence of an inciting trigger. Occasionally, surveillance footage or information from social media accounts (if available) may reveal that the claimant's symptoms are falsified or exaggerated.

Examinees may tend to rehash a pre-prepared narrative with generic memories and make inaccurate recollections of events and symptoms that did not occur. Establishing the history from the present and working in a retrograde manner may increase the reliability of the history (Barsky, 2002). The examinee's account should be compared to collateral records, and any discrepancies must be noted. The examinee's current mental state and perceptions of the nature and cause of their condition and its influence on the narrative account provided should also be noted.

In addition, the examiner should evaluate for the presence of associated features that commonly accompany FND, such as headaches, fatigue, and memory problems ("brain fog"). In many cases, depression, panic disorder, generalized anxiety disorder, post-traumatic stress disorder, and personality disorders (such as borderline, dependent, histrionic, and narcissistic personality) may accompany FND. As previously noted, FND may be part of a broader diathesis to somatization, including symptoms of persistent postconcussive syndrome, irritable bowel syndrome, fibromyalgia, chronic fatigue syndrome, chronic pelvic pain, and tension headaches. Others still may have a distorted perception of their illness, believing that their symptoms were caused by toxic mold exposure, chronic Lyme disease, or electromagnetic or multiple chemical sensitivities.

As when conducting an evaluation of malingering, it is better to assess which of a claimant's reported neurological symptoms are functional in origin than to assume that they all share the same etiology. Epilepsy and functional seizures (previously called psychogenic non-epileptic seizures) may co-occur, and over 32% of those with functional parkinsonism have Parkinson's disease (Ambar et al., 2020). Functional symptoms may also occur in early-onset Alzheimer's disease, frontotemporal dementia, and autoimmune encephalopathies. In addition to using the semiology and onset of symptoms as clues to an FND diagnosis, the level of reported debility caused by the symptoms is typically greater than expected (for example, individuals with functional seizures often report greater impairment than those with epilepsy).

Predisposing factors for FND include a history of emotional, physical, and sexual abuse, as well as neglect. Additionally, the examiner should identify if the examinee had any close contacts or relatives with neurological or other serious medical symptoms that may have provided an "illness model." Alexithymia—the inability to identify and describe emotions—is common in those who develop FND; examinees may describe an early aversive environment in which they avoided experiencing strong emotions. There may be other family members with somatoform symptoms or who work in healthcare professions.

Precipitating factors may include head injury or other bodily trauma. In some cases, a surgical procedure or medication exposure may have preceded the onset of symptoms. While direct questioning rarely identifies stressful life events, a careful inquiry using the Life Events and Disabilities Schedule (Brown & Harris, 1978) may reveal significant life events in the 3 months preceding the onset of symptoms in 70% of cases (Nicholson et al., 2016). Consistent with psychological models of FND, the development of functional symptoms may provide an "escape" from these stressors. In a recent systematic review (Morsy et al., 2022), family problems, relationship problems, and work-related stressors were found to be the most common life events preceding FND. Work-related events may be particularly relevant to workers' compensation, as well as harassment and discrimination claims. To identify stressful life events, forensic evaluators may utilize a structured interview approach, such as the Life Events Checklist for DSM-5 Interview Version (Weathers et al., 2013), to enhance the probability of identifying potentially relevant life events.

Perpetuating factors include a refusal to accept that one's symptoms have a functional etiology, reinforcement from well-meaning loved ones, escape from an aversive work environment, and ongoing disability payments or litigation. In the latter case, the presence of external contingencies (such as the prospect of recovering damages) may make FND difficult to distinguish from frank malingering in a legal setting. Because triers of fact may also struggle to make this determination, how a legal claim is resolved (and whether a claimant's functional symptoms are deemed compensable) may ultimately hinge more on the plaintiff's credibility than on particular clinical factors.

## 2.4 | Physical examination findings

In addition to a careful review of the patient's history, the diagnosis of FND also relies on a physical examination. Although this condition is often challenging to diagnose, a number of clinical findings are commonly associated with FND.

Similar to other medical conditions, FND is diagnosed on the basis of positive physical signs (Espay et al., 2018). In motor FNDs, collapsing or "give-way" weakness, downward drift of a raised arm without pronation, muscle co-contraction, and Hoover's sign are considered reliable indicators of functional limb weakness (Daum et al., 2015; Daum et al., 2014). Functional tremors can be differentiated from organic tremors through distractibility and entrainment (i.e., the ability of the tremor to be brought into a specific frequency) (McAuley & Rothwell, 2004). These and other maneuvers used to establish a functional cause of the patient's symptoms are presented in Table 1.

Patients with functional seizures may keep their eyes tightly shut during the ictal event, exhibit signs of emotional distress (for instance, crying), and subsequently be able to recall the period of unresponsiveness—findings that are rare in epileptic seizures (Avbersek & Sisodiya, 2010; see Table 2). Given that no examination finding is pathognomonic for functional seizures, the gold standard for diagnosing this condition is video electroencephalography (EEG) showing the absence of seizure activity during an episode. However, even a negative video EEG does not rule out epilepsy if the semiology is consistent with a seizure focus in deep cortical regions (insular seizures, for example, are typically undetectable on scalp EEG). In rare cases, ictal single-photon emission computed tomography (SPECT) or even extraoperative intracranial EEG monitoring may be necessary to confirm the diagnosis. Psychological testing can also be helpful to support a diagnosis of functional seizures rather than epilepsy.

### 2.5 | Psychological testing

Psychological testing can be used to distinguish malingered neurological disorders from FND. Both the Hysteria and Somatic Complaints scales on the Minnesota Multiphasic Personality Inventory-2 (MMPI-2) and the Somatization subscale of the Personality Assessment Inventory assess a respondent's somatization tendencies. In addition, these instruments have validity scales to detect malingering. Although respondents with FND tend to show elevated scores on MMPI-2 validity scales (80–100 T), scores associated with malingering are even higher (>100 T) (Boone, 2017).

Neuropsychological testing may be indicated for claimants presenting with cognitive symptoms. The California Verbal Learning Test and the Test of Memory Malingering both contain indicators of insufficient effort; repeated failures on these measures are generally inconsistent with FND. Similarly, multiple failures or extreme exaggeration on the Dot Counting Test (McCaul et al., 2018) and b Test (Roberson et al., 2013) (other tests of performance validity) are more consistent with a pattern of malingering than FND. However, internally inconsistent cognitive symptoms (e.g., performing a task well at certain times but being impaired at other times) are now recognized as characteristic of functional cognitive symptoms, even though they are not included in DSM-5-TR (Ball et al., 2020).

One under-researched question is how to distinguish between functional cognitive symptoms and malingered cognitive impairment. While a subset of those with functional cognitive testing may perform in the average or even superior range on neuropsychological assessments, others may exhibit failures on performance validity testing. Nevertheless, a systematic review of cognitive abnormalities in FND revealed poor effort on performance validity testing only in a minority of subjects (Teodoro et al., 2018). Research aimed at distinguishing malingered neurological symptoms from FND is lacking, and similar physical examination findings consistent with FND may also be found in those with malingered or factitious neurological symptoms.

## 3 | FUNCTIONAL NEUROLOGICAL DISORDER AND THE LAW

Functional neurological disorder may be at issue in personal injury, psychiatric disability, toxic exposure, workplace harassment and discrimination, and medical malpractice cases. These cases raise a key question for courts: when, if ever, is FND compensable? In each case, it is on the basis of functional impairment—not a diagnostic label—that compensation is awarded.

**TABLE 1** Neurological examination: Clues that the patient has a functional disorder.

| Sign | Sensitivity, specificity | Functional neurological disorder | Comment or example |
|---|---|---|---|
| Motor | | | |
| Variable strength | Sensitivity 63%, specificity 97% | Present | Collapsing weakness: As the examiner applies different levels of force, the patient's resistance varies |
| Hoover's sign | Sensitivity 94%, specificity 99% | Present | Positive Hoover's sign: if the examiner does not feel the "normal" leg's heel pushing down as the patient flexes the hip of the "weak" limb, this suggests functional weakness |
| Inconsistent examination | Sensitivity 13%, specificity 98% | Present | The patient can rise from a chair but is unable to lift either leg off the examination table |
| Co-contraction | Sensitivity 17%, specificity 100% | Present | When asked to flex the elbow, both biceps and triceps are activated |
| Hip abductor sign. Espay et al., 2018. | Sensitivity 87%–100%, specificity 100%. Sonoo, 2004. | Present | Weakness of hip abduction in a paretic leg that resolves with contralateral hip abduction against resistance in the normal leg |
| Drift without pronation Espay et al., 2018. | Sensitivity 100%, specificity 93%. Daum & Aybek, 2013. | Present | Downward drift without pronation of the paretic arm |
| Finger abduction sign Espay et al., 2018. | Sensitivity 100%, specificity 100%. Tinazzi et al., 2008. | Present | Weakness of finger abduction that resolves with contralateral finger abduction against resistance |
| Whack-a-mole sign Espay et al., 2018. | Sensitivity 28%, specificity 91%. Park et al., 2016. | Present | Emergence or worsening of an involuntary movement in a separate body part when the initially affected body part is suppressed by someone holding it down |
| Babinski sign | Expert opinion | Absent | |
| Tremor | | | |
| Entrainment | Sensitivity 91%, specificity 91% | Present | The tremor frequency switches to match the frequency of a voluntary rhythmical movement performed by the unaffected limb |
| Distraction affecting the tremor | Sensitivity 92%, specificity 94% | Significant | The tremor changes when the examiner has the patient perform tasks like counting backward |
| Variability | Sensitivity 22%, specificity 92% | Significant | The amplitude and characteristics of the tremor vary during the examination |
| Sensory | | | |
| Pattern of numbness | Sensitivity 74%, specificity 100% | Not anatomic | Sensation normalizes at hip or shoulder |
| Splitting the midline | Sensitivity 20%, specificity 93% | Present | The sensory nerves do not end precisely at the midline |

**TABLE 1** (Continued)

| Sign | Sensitivity, specificity | Functional neurological disorder | Comment or example |
|---|---|---|---|
| Splitting of vibration | Sensitivity 95%, specificity 14% | Present | The frontalis is a single bone, so vibration sense should be the same bilaterally |
| Gait | | | |
| Dragging leg | Sensitivity 8.4%, specificity 100% | Present | Patients with pyramidal weakness circumduct their leg |
| Inconsistent with known neurological disease | Not validated | Present | Noneconomic, requires more rather than less effort (e.g., knee buckling without a fall requires more strength at knee extensors) |
| Consistently falls to or away from examiner | Not validated | Present | Significant sway, often after a latency |

*Note*: Adapted from O'Neal and Baslet, 2018.

## 3.1 | Personal injury litigation

Consider a plaintiff ("Lisa") who alleges functional complaints following a head injury sustained in a motor vehicle accident—a relatively common scenario in forensic practice. To recover damages, Lisa may consider filing a personal injury suit against the party who allegedly injured her.

For a plaintiff like Lisa to succeed in a negligence suit, she must show not only that the defendant acted wrongfully but also that his conduct was the proximate cause of her injuries (American Law Institute, 2010). The question of causation can be conceptually thorny for both courts and psychiatric experts. Plaintiffs' attorneys will generally aim to present the plaintiff's injuries as a straightforward consequence of the defendant's actions, while defendants will seek to undermine this argument by presenting evidence of other potential causes of the plaintiff's injury (Davidson & Tung, 2008). In this case, did Lisa's motor vehicle accident cause her functional neurological symptoms? If so, the defendant will be liable for the full extent of her injuries (an application of the so-called "thin skull" or "eggshell plaintiff" rule) (Calandrillo, 2006). Alternatively, were her symptoms actually the result of a preexisting, non-proximate psychiatric vulnerability? Although a complete discussion of causation is beyond the scope of this article, some support for the latter view is provided by Levy and Rosenberg (2003), who warn against "confusing subsequence with consequence"—that is, assuming the defendant's conduct caused or substantially contributed to the plaintiff's injury simply because it preceded it. Instead, they urge examiners to consider the "complex constellation of interdependent factors"— biological, psychological, and social—that "contribute to actual, as well as merely alleged, mental damages" (Levy & Rosenberg, 2003). By doing so, the authors believe that experts may achieve a more scientifically rigorous assessment of plaintiffs' actual harms. Until then, award determinations in many cases will likely continue to be determined by juries' perception of the plaintiff's personal credibility.

The prognosis and treatment of FND are other contested questions that pose a challenge in assessing damages and determining monetary awards. Although FND is now regarded as a treatable disorder with the potential for full recovery, the availability of specialist treatment is relatively sparse. Furthermore, randomized trials for FND treatments are few, although accepted practice involves a range of neurorehabilitative or psychotherapeutic approaches depending on symptom presentation. Common rehabilitation therapies include physical therapy, occupational therapy, speech therapy, and cognitive rehabilitation. Common psychotherapies include cognitive behavior therapy (CBT), dialectical behavior therapy, acceptance and commitment therapy, psychodynamic psychotherapy,

**TABLE 2** Historical and semiological features that can help distinguish psychogenic nonepileptic seizures from epileptic seizures.

| | Psychogenic non-epileptic seizures | Epileptic seizures |
|---|---|---|
| Distinguishing historical features | | |
| Prolonged seizures or seizure clusters >30 min | Common | Rare |
| Seizures in the presence of doctors | Common | Unusual |
| Multiple unexplained physical symptoms | Common | Rare |
| Multiple operations/invasive procedures | Common | Rare |
| Seizure onset at <10 years of age | Uncommon | Common |
| Distinguishing semiological features | | |
| Slowly evolving seizure onset | Common | Rare |
| Undulating motor activity | Common | Very rare |
| Closed eyelid during seizure onset | Very common | Rare |
| Resistance to eyelid opening | Common | Very rare |
| Asynchronous limb movements | Common | Rare |
| Side-to-side head shaking | Common | Rare |
| Severe tongue biting (side) | Rare | Common after GTC |
| Stertorous breathing postictally | Not present | Common after GTC |
| Postictal nose rubbing | Not present | Occurs in TLE |
| Ictal grasping (gripping of an object with one hand or both hands) | Rare | Occurs in FLE and TLE |
| Pupillary light reflex | Usually retained | Commonly absent |

*Note*: Adapted from Chen and LaFrance, 2018.

Abbreviations: FLE, frontal lobe epilepsy; GTC, generalized tonic-clonic epileptic seizures; TLE, temporal lobe epilepsy.

and hypnotherapy. The largest randomized controlled trial to date in FND, comparing 12 sessions of CBT to standardized medical care for functional seizures, did not yield a statistically significant difference with regard to seizure frequency (Goldstein et al., 2020). However, improvements were observed in secondary measures, such as lower distress, less impairment in psychosocial functioning, improved health-related quality of life, and fewer somatic symptoms in the CBT group. While this study and a previous randomized controlled trial (La France et al., 2014) provided a 12-session intervention, in clinical practice, many patients may require long-term intensive psychotherapy. During litigation, defense experts may question the duration and medical necessity of treatments.

The prognosis for FND is generally considered poor. Although treating clinicians often emphasize that FND is a treatable condition that can and does improve, even without treatment, the literature suggests a lack of improvement in symptom burden during follow-up, along with low rates of employment and poor quality of life (Gelauff & Stone, 2016). A prolonged duration of symptoms emerges as the most consistent predictor of a poor prognosis. In their review of the extant literature, Gelauff and Stone (2016) found inconsistent data regarding whether litigation and receipt of disability benefits negatively impacted prognosis. Given the challenges of distinguishing FND from malingered neurological symptoms and the tendency for functional conditions to be conflated with "imagined" or "fabricated" symptoms, even by some physicians, the prognosis of FND and its involuntary nature may be challenged in litigation.

Significantly, in clinical practice, a common concern is the misdiagnosis of organic neurological disorders as functional, and the misdiagnosis of functional symptoms as organic is just as likely in forensic practice. The simplicity of attributing permanent brain damage to a motor vehicle accident may prove to be more alluring than the complexity of FND. In the latter case, questions of causation, compensability, treatability, and prognosis are certainly more vexing. We suspect that the relative dearth of penned judicial opinions featuring FND (and its former incarnations) may, in part, reflect the underdiagnosis of this condition in medicolegal settings.

## 3.2 | Disability claims

In certain cases, individuals with FND may qualify for disability benefits, including Social Security Disability Insurance (SSDI) benefits administered by the U.S. Social Security Administration. Disability claims for FND are inherently difficult to evaluate, as claimants may subjectively experience their symptoms as more severe than is supported by clinical evidence (see *Nowling v. Colvin* [2016]). Given the challenge of assessing the credibility of such claimants, the *Nowling* court held that administrative law judges of the Social Security Administration should consider the testimony of family and others who know the individual well when making a finding of FND-related disability.

Social Security disability cases differ from personal injury (tort) cases in two key respects. First, the determination of whether or not a claimant is disabled is not an adversarial process. Second, claimants are permitted to introduce evidence from non-medical sources (e.g., opinions and observations from family members) that would likely be inadmissible at trial. As such, a claimant who successfully receives SSDI benefits may not necessarily recover damages at trial for the same injury.

## 3.3 | Medical malpractice

Approximately 4% of patients diagnosed with FND are later found to have an organic disease that adequately explains their original symptoms (Stone et al., 2005). When a misdiagnosis of FND leads to a delay in treatment, especially in emergency settings (Fishbain & Goldberg, 1991), it may result in litigation.

Clinicians should take care not to label a symptom presentation as "functional" merely because it is unusual in some way. Relatively rare neuropsychiatric disorders such as anti-LGI1 antibody encephalitis or atypical stroke presentations (e.g., hemisensory loss following contralateral thalamic stroke) may be mistaken for conversion by clinicians who are unfamiliar with these conditions. To complicate matters, neurodegenerative diseases and autoimmune encephalopathies may present with functional symptoms as a prelude to the onset of the actual disorder. Practitioners should therefore not allow the presence of functional neurological symptoms to distract from the possibility of a co-occurring neurological disease. Furthermore, clinicians should avoid making a premature diagnosis of FND on the basis of trauma or stressful life events. The diagnosis of functional neurological symptoms should rely on positive physical findings consistent with this condition (Aybek & Perez, 2022).

Whether a plaintiff can recover in a malpractice action for misdiagnosed FND (and its resulting harm) is determined using the "reasonable practitioner" standard: would a reasonably competent physician have provided the same (or different) care under similar circumstances? Under this standard, the defendant's medical decision-making will be evaluated based on what a typical practitioner in the same medical specialty would have done. Therefore, whether a misdiagnosis of FND falls below the standard of care may depend, in part, on the rarity of the plaintiff's actual condition within a given practice setting.

## 4 | CONCLUSIONS

A central challenge for examiners is distinguishing a plaintiff's functional neurological symptoms from symptoms that are exacerbated by the litigation process or even intentionally produced. In practice, these different symptom domains can be difficult to delimit. Like other litigants with chronic illnesses, individuals with FND have certain external incentives or environmental contingencies—such as the prospect of a favorable verdict—that may maintain or exaggerate their symptoms.

A diagnosis of FND is not in and of itself sufficient to allow a plaintiff to obtain legal compensation, but nor does it exclude the possibility of recovery. In addition to information about the plaintiff's specific diagnosis, legal counsel is likely to ask the forensic evaluator to comment on the etiology and severity of the plaintiff's symptoms. Were these symptoms caused by the defendant? If so, how much harm resulted? In the case of a plaintiff such as Lisa, the examiner should inquire into relevant signs and symptoms, a history of similar episodes (or other unexplained symptoms), and any relevant treatment history. Objective findings, including positive signs on physical examination, should be used to support the examiner's conclusions if available. In addition to conducting a direct examination, the examiner should be sure to review all available documentary evidence, such as medical and employment records, police reports, and witness statements, to provide a complete picture of the plaintiff's level of functioning before and after the reported injury. Taken together, these data should allow the examiner to determine whether the plaintiff's symptoms are best explained by FND, other abnormal illness behaviors, or multiple overlapping etiologies. Perhaps most importantly, regardless of whether they have been retained by plaintiff or defense attorneys, forensic examiners should seek to provide courts with evaluations that are principled, careful, and objective. Doing so is in the interests of justice.

### CONFLICT OF INTEREST STATEMENT

The authors have no conflict of interest to declare.

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**How to cite this article:** Datta, V., & Blum, A. W. (2024). Forensic assessment of somatoform and functional neurological disorders. *Behavioral Sciences & the Law*, 1–12. https://doi.org/10.1002/bsl.2651