COMMENTARY

Assessing Fatigue in Multiple Sclerosis: Shedding Light on the Elephant in the Dark


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A POPULAR STORY DESCRIBES A GROUP OF MEN, WANDERING THROUGH THE DARK OF NIGHT, WHO HAPPEN UPON AN ELEPHANT. AS THEIR outstretched hands fall upon different parts of its body, each conjures up an image of the beast. As the men call out descriptions of the animal blocking their path, an argument ensues. The man grasping the leg proclaims the elephant to be shaped like a pillar. His friend, whose hand fell upon the ear protests that the elephant must resemble a large hand-fan. Not surprisingly, the chap holding the tusk retorts the elephant to be as slender as a snake. As the elephant’s handler comes upon the scene, he explains that all are correct, but only partially. Their understanding of the elephant’s size and shape is constrained to only that portion that they touch.

Establishing a standardized approach to evaluating and treating fatigue is fraught with issues similar to those of grappling with an elephant in the dark. This may reflect the multiple subjective experiences associated with the term fatigue. In contrast, many medical terms convey an unambiguous concept of the patient’s subjective experience. For example, the term vertigo describes a sense of dizziness and motion, although one is stationary. When the clarity of a medical term such as vertigo is compared with the term fatigue, whose definition is somewhat obscure, additional descriptors are necessary to convey the patient’s subjective experience. Examples of these include an overwhelming sense of tiredness, a lack of energy or feelings of exhaustion, difficulty initiating or sustaining voluntary effort, feelings of physical tiredness and lack of energy distinct from sadness or weakness, or lack of physical and/or mental energy.

The complexity involved with assigning a diagnosis of fatigue is exemplified by the Centers’ for Disease Control (CDC) and Prevention’s 1994 case definition for Chronic Fatigue Syndrome (CFS). That definition requires the presence of debilitating fatigue accompanied by at least four of eight designated symptoms. Accompanying symptoms must have persisted or recurred during six or more consecutive months of illness and cannot have predated the fatigue. Of the eight designated symptoms, unrefreshing sleep, impaired short-term memory or concentration, headaches of a new type or pattern or severity, muscle pain, and multi-joint pain without swelling or redness, are among the most frequently reported.

The CDC’s case definition for CFS acknowledges that symptoms that must accompany fatigue are also non-specific and variable over time in both nature and severity. It is also worth noting that the CDC’s case defining criteria for CFS is based upon a consensus of clinical opinions rather than empirical data. Although minor revisions to the original CFS definition have occurred, those have focused upon clarification of the original criteria rather than significant and substantive modifications.

Despite the intuitive inclusion of symptoms such as unrefreshing sleep and fatigue in the definition of a clinical condition, their inclusion becomes questionable when the prevalence of those symptoms attains significant proportions within the general population. Our recent population survey demonstrates that 35% of 5,630 study participants reported persistent problems with unrefreshing sleep. Of those with unrefreshing sleep, 71% also reported the presence of fatigue. Fatigue co-occurred in 57% of those endorsing persistent problems falling asleep, and within 62% of those who could not sleep through the night, as well as within 45% of persons who stated that they snore. As unrefreshing sleep is a symptom of many sleep disorders, its inclusion as a case-defining symptom of a clinical syndrome may inadvertently further add to the complexity of identifying etiologic mechanisms of that syndrome.

The large number of both intrinsic and extrinsic mechanisms contributing to the expression of fatigue has hampered progress towards establishing standardized criteria for its presence and severity. The corresponding absence of objective physical signs, abnormal laboratory values, or pathological corollaries also impedes assessment of treatment interventions. This not only slows progress towards identifying and treating those patients with CFS, but also those with other disorders in which fatigue predominates clinical symptomology, such as multiple sclerosis.

In this issue of SLEEP, Braley and Chervin’s review of fatigue in multiple sclerosis provides a succinctly organized review of primary mechanisms potentially contributing to the occurrence of fatigue in this disorder. Their review of secondary mechanisms, such as sleep disorders, depression, and iatrogenic sources, emphasizes that comorbid disorders may account for some portion of the fatigue associated with multiple sclerosis. Moreover, by illustrating that sleep disorders such as restless legs, insomnia, or circadian rhythm disorders may occur at a higher prevalence in patients with multiple sclerosis.
than in the general population, Braley and Chervin validate the need to routinely incorporate sleep assessment during diagnostic and follow-up clinical examinations. As many sleep disorders are amenable to treatment, there exists the possibility that, if present, their resolution could also eliminate or reduce fatigue levels.

Braley and Chervin’s review provides an insight into fatigue that transcends this singular disorder. By clarifying that objective and measurable mechanisms such as cytokines, sleep disordered breathing, insomnia, and depression contribute to the expression and severity of fatigue, they have demystified the ambiguity surrounding this symptom. In doing so, they highlight the necessity for a detailed clinical inquiry of potential mechanisms when assessing patients’ complaints of fatigue. Because that assessment can initially be performed with appropriate, validated questionnaires, the additional time burden to both patients and clinicians would hopefully be negligible. Insight gained during those efforts may also guide selection of interventions, many of which are described in this review.10

Much like the elephant in the dark, definitions for fatigue and corresponding diagnostic and therapeutic approaches have been based upon clinical opinions rather than empirical data. Much like the elephant’s handler, Braley and Chervin remind us that assessment of etiologies potentially underlying fatigue in multiple sclerosis, or any disorder, should not be limited to only those that may be apparent. Rather, we need to expand our consideration of potential causes that may not to be within our immediate grasp.

DISCLOSURE STATEMENT
Dr. Decker has indicated no financial conflicts of interest.

REFERENCES