DEVELOPING EVIDENCE-BASED TREATMENTS FOR FUNCTIONAL MOVEMENT DISORDERS: RESULTS FROM A PILOT STUDY

Scott Ries, MSW LISW-S
University of Cincinnati

Functional neurological disorders have been the focus of neuropsychiatric treatment since the days of Charcot and Freud, who treated “hysterias” (usually including fainting spells and dystonias) using a specific type of talk therapy and hypnosis. While much of the early literature describing these treatments suggests that the treatments were effective, in reality success was sporadic and difficult to predict. As a result, patients with “somatic” illnesses, including hypochondriasis and conversion disorders, were often seen as untreatable, and relatively few psychiatric clinicians had any specific training in the treatment and management of functional illness.

In recent years, new attempts to develop evidence-based treatments for functional illnesses have emerged, primarily using cognitive-behavioral therapy (CBT). CBT was influenced by the cognitive revolution of the 1950s and 1960s, and was based on an information processing model, with an emphasis on how thoughts develop in specific situations and how these thoughts trigger emotional responses and symptoms. Aaron Beck, MD, who had training in both neurology and psychiatry, has been most instrumental in the development of CBT as both a theoretical and practical specialty (Beck, 2005). From its initial application to the treatment of depression and suicidal behavior, CBT has evolved to include specific treatments for a range of mood disorders, anxiety disorders, psychotic disorders, eating disorders, and personality disorders. Specific cognitive profiles have been demonstrated for each area, and there is abundant evidence available for treatment in person-to-person clinical settings as well as through the use of computer programs. Beck’s concept of “collaborative empiricism” and use of Socratic questioning are fundamental to the treatment method, regardless of the disorder being treated.

CBT is way of understanding the development of psychopathology that assumes that thoughts, feelings, and behaviors are interconnected, and that intervening to change one of these variables necessarily changes the others. CBT assumes that life situations (both dramatic and seemingly mundane) are given meaning by means of a “filter” that includes genetics, biology (e.g., depressed patients are more likely to see situations pessimistically) and *schemas*, or fundamental beliefs, developed beginning in childhood, about the self, others, and the world. These schemas can be “core” beliefs, usually expressed as a dichotomy (one is competent or incompetent, lovable or unlovable), or conditional, expressed as an “if-then” statement (If someone is angry with me then I have done something wrong). This filtering system leads to specific thoughts (termed automatic thoughts), which trigger emotional responses, which then trigger symptoms- including functional symptoms- and specific behaviors meant to decrease the intensity of the emotion.

The term “CBT” now describes a wide range of therapies. The “third wave” CBT therapies include more focus on the role of emotion and affect, and many include mindfulness practice as a core technique. Other CBT subtypes focus on behaviors, schemas, and practical problem solving. CBT has been widely studied, and is considered the first line therapy for most conditions.

Patients with functional movement disorders have often seen multiple providers in neurology, psychiatry, and primary care, without help. According to Nimnaun (2001), 30-50% of patients presenting to primary care are for physical symptoms unrelated to obvious organic disease. Only about half of functional movement disorder patients have co-occurring mood or anxiety symptoms (which debunks a long-held assumption that these conditions were “somaticized depression”), and these patients have life stresses and trauma histories similar to the general population (Kranick 2011).

The use of CBT for functional neurological conditions, while relatively new, has shown promising results. A randomized controlled trial for psychogenic, non-epileptic seizures (Lafrance et al 2014) demonstrated significant seizure reduction as well as improvements in co-occurring mood and anxiety symptoms. The study used a manualized, 12 session treatment including psychoeducation (about the condition and treatment); behavioral analysis/trigger awareness; communication strategies (including assertiveness training); cognitive restructuring using thought logs; relaxation training; and dealing with internal conflicts. A version of this manual adapted to other movement disorders has also been described (Lafrance and Friedman, 2009).

For the pilot study of functional tremors initiated by Dr Alberto Espay at the University of Cincinnati, a total of 15 patients were recruited for the treatment arm, consisting of 12 CBT sessions. Three patients were either not appropriate (due to lack of effort in treatment) or dropped out. The 12 remaining patients ranged in age from 27 to 66; 9 were female. Duration of tremors ranged from 12 to 72 months; at follow up, 8 had achieved full remission of symptoms, 1 patient had marked benefit but not full remission, 1 had partial remission of symptoms, and two had no response despite completing treatment.

Although the CBT treatment was not manualized, many of the components introduced in the manual described earlier were adapted to the therapy. In addition, elements from the treatment of panic disorder were included, based on the idea that panic disorder can be understood as a “functional cardiac disorder”, and that panic disorder patients and functional movement disorder patients appear to share many traits. One significant finding from the study was that while several patients achieved full remission, there was not a single effective intervention; instead, some patients benefited from traditional thought monitoring, some from behavioral exposure, and others from assertiveness training.

Future studies will require much larger patient samples (from multisite trials) and will incorporate a more structured, likely manualized, treatment arm. Manualized treatment has the advantage of promoting better internal reliability and is easier to replicate, offsetting the disadvantage of increased difficulty in implementation (due to time required to train clinicians and cost related to development).

References/Additional Resources

Beck A.T. (2005). The current state of cognitive therapy- a 40 year retrospective. *Arch Gen Psychiatry* Vol. 62(9), 953-959.

Lafrance, W and Freidman, J. Cognitive behavioral therapy for psychogenic movement disorder. *Mov Disord 2009; 24:12 1856-7*

Lafrance, W, Baird, G, et al. Multicenter pilot treatment trial for psychogenic nonepileptic seizures: A randomized clinical trial. *JAMA Psychiatry 2014; 71(9), 997-1005*

Kranick S, et al. pathophysiology and psychogenic movement disorders. *Mov Disord 2011; 26:1844-50*

Nimnuan, C, et al. Medically unexplained symptoms: an epidemiological study in seven specialties. *J Psychosom Res 2001; 51:361-7*

Stone, J. Functional Neurological Disorders: The neurological assessment as treatment. *Pract Neurol. 2016; 16: 7-17*