

Diagnosing Functional Neurological Disorder in Croatia. What can be changed?

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Dear Editor,

In this letter, we present our opinion, subserved to sociological data, on an underwhelming state of affairs concerning the public, and medical community opinion of functional neurological disorders in Croatia.

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Functional neurological disorders abbreviated “FND” (ICD -10 F44, F45) are defined as various neurological symptoms such as limb weakness, unexplained sensory symptoms, cognitive disorders, gait difficulty, movement disorders, or paroxysmal episodes which are inconsistent and incompatible with current knowledge of known organic neurological diseases (1). The prevalence of FND is estimated to be 50 per 100 000 population per year with an incidence of 4 to 12 per 100 000 population per year (2). Total costs of ED visits and inpatient care of adult FND in the USA are above \$1.2 billion annually (1) comparable to hardest-to-treat neurological diseases. Current understanding of FND has advanced with neurobiological data of altered neuronal networks, and the exclusion of necessary stressor agents advancing its understanding from previous definitions such as psychogenic, conversive, or medically unexplained neurological disorders. Combining detailed medical history, and clearly defined positive signs in neurological examination demonstrating inconsistency allows this to be a safe diagnosis with the frequency of misdiagnosis being 4%, and with a rate of reversal of diagnosis being only 0.4% (2). Neurologists’ role is paramount in treating FND starting with an adequate explanation of diagnosis, arranging a multidisciplinary treatment plan (physiotherapy, cognitive behavioral therapy by psychologists, and non-pharmacological methods), and follow-up of patients. Early diagnosis, honest follow-up, and discourse show promising results in treating this disorder (3).

FND as a diagnosis in Croatia is still underrecognized by primary physicians, neurologists, patients, and the general public. No adequate scientific research on it is represented in the Croatian scientific bibliography search engine (CROSBY) with keywords such as “dissociative disorder” entered in search engine resulting in 28 papers, “conversive disorder” presenting 10 papers, “psychogenic” presenting 8 papers, and “functional neurological disorder” presenting 0 papers (4). FND is often mentioned to be second to headaches with regards to outpatient neurological visits, and the CROSBY keyword “headache” produces 276 results showing the disparity in coverage of these diagnoses in Croatia. According to the Croatian Public Health Department Mental disease Bilten (5) morbidity percentage

of mental diseases in primary health care is highest in diagnoses encompassing neurotic, stress-related, and somatoform diseases (F40-F48) with around 50% of mental disease patients in primary care being with those diagnoses. Hospitalization rates of F40-F48 are 9% among hospitalization rates of mental health diseases (5). Even though there is no isolated analysis of F44 and F45 diagnoses, and many of these patients are not adequately coded these percentages show that their number is significant. Unfortunately in Croatia public opinion and the opinion of physicians are still inadequately differentiating FND as a term from psychogenic, factitious, and even malingering meaning that it is often understood by the patient and physician as to be a stigmatizing diagnosis. Lack of up-to-date education of physicians leads to administering multiple tests which rise the expenditure of resources and leads to patients' suspicion of having a rare medically unexplained disease. This combined with an inadequate explanation of the disease leads to "doctor shopping" for years solidifying these symptoms, and making them harder to treat. Neurologists in Croatia unfortunately often dismiss these patients after diagnosing them, leaving them to be treated by psychiatrists, while other less self-confident neurologists fear missing a rare neurological disorder and failing to grasp the latest research results about FND.

Symptoms of these patients are involuntary, and as real as are of other organic neurological diseases. They should be recognized as such and provided specialized physiotherapy, cognitive behavioral therapy, TMS, and necessary medical aids in refractory cases. For a small country such as Croatia dedicated FND clinic with inpatient rehabilitation would be a possible solution for treating and destigmatizing these patients nationwide.

Sites like www.fndhope.org and www.neurosymptoms.org are recognized in English-speaking spheres as valuable assets in patient-physician communication. Using the same template in Croatian could potentially be rewarding alongside self help booklets. Any information helping patients understand their diagnosis results in better acceptance and better treatment response.

Education of physicians about novel neurophysiological findings in FND should help them understand this disorder better giving more confidence in diagnosing it thus creating better opportunities in starting adequate treatment earlier. Introduction of annual seminars in continuous medical education, creation of national guidelines, algorithms, promotion of psychologists, and physiotherapists' role in multidisciplinary treatment are all ways that would guarantee advancement in the current state of FND treatment in Croatia.

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