

ATTITUDE OF PHYSICIANS TOWARDS FUNCTIONAL NEUROLOGICAL DISORDER: A SURVEY

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ABSTRACT

FND is caused by specific neurological signs and symptoms, however a definitive underlying pathology is not apparent, Despite the high frequency, FND has been neglected and often dismissed in the medical realm. This study aims to look into doctors' perceptions of FND with the goal of improving patient experience and treatment. A total of 152 doctors from different specialties participated in the research, which employed a cross-sectional survey. The survey included multiple-choice questions about the diagnosis and management of FND in addition to the doctors' opinion on firsthand experience. Electronic forms were used for data collection and the analysis consisted of descriptive and thematic space types. Thoughts about FND were polar among the participants. Some were dismissive and labelled the doctors participating, whilst neurology and psychiatry professionals have had a more rounded comprehension of the disorder. It is known that an increasing number of medical doctors regularly come across FND patients, making its thorough understanding rather relevant. However, certain problems with classification, evaluation methods and even the interrelation were obvious. Different methods of treatment insight the need to tailor treatment approach to individual needs of the patients. In this survey, the difference in opinions on management of FND between the doctors has been presented. Persistent misinterpretation and communication barriers still exist, even with greater focus. These findings underscore the value of continuing medical education, anti-stigma efforts and collaboration.

INTRODUCTION

FND or Functional Neurological Disorder is a disease of interest which is both quite complex and intriguing hence many doctors and researchers are interested in this diseaseⁱ. One of the most common conditions among patients in neurological practice is a disorder where neurological abnormalities appear, but the disease is not traceable.ⁱⁱ Words like hysteria, conversion disorder, somatoform disorders, non-organic, and "psychogenic symptoms"ⁱⁱⁱ. Despite specific symptoms, there are

several synonymous descriptors for the same phenomenon, such as functional seizures, psychogenic non-epileptic seizures, dissociative seizures, hysterical seizures, and pseudoseizures^{iv}. Common manifestations of FNDs encompass dissociative episodes resulting in periods of altered or diminished consciousness, and/or atypical movements resembling epileptic seizures or syncope (not stemming from abnormal brain electrical activity). Functional movement

The Research of Medical Science Review

disorders, like functional tremors, exhibit distinct clinical traits that distinguish them from organic counterparts, such as the ability to synchronize with external cues and susceptibility to distraction. Neurological practice encompasses various other forms of functional symptoms, including vertigo, cognitive manifestations, and certain types of pain syndromes, which are presently not encompassed by the FND definition.

In previous diagnostic frameworks (e.g., DSM-4), the positive identification of correlated psychological factors was imperative for diagnosis. However, such factors are not consistently discernible. Consequently, the necessity for a "recent psychological stressor" has been eliminated in the prevailing DSM-5 criteria^v. New standards of care are emerging to support the therapeutic role of education^{vi}, physical therapy^{vii}, occupational therapy^{viii}, and psychotherapy^{ix x xi} (especially conventional and cognitive-behavioral therapy). Despite the widespread occurrence of FND and the surge in research activity, numerous medical practitioners find themselves inadequately prepared to handle this group of individuals. Although the process of addressing the condition commences with imparting the diagnosis, we have come across proficient medical experts who, nevertheless, lack a precise approach in organizing subsequent appointments for patients diagnosed with FND^{xii xiii xiv}.

Functional Neurological Disorders (FNDs) and those afflicted by them have historically faced neglect, societal stigma, and derision within the medical community. Despite the substantial impact of these disorders on the healthcare system and the resulting impairment endured by affected individuals recognition has been lacking for decades. As a result, healthcare providers' limited knowledge results in communication difficulties and inaccurate diagnoses for individuals with FNDs..

In the world of healthcare, physicians play an important role in identifying, comprehending, and addressing FND. Therefore, examining the opinions of doctors regarding Functional Neurological Disorder is essential for enhancing patient care and results. This research aims to investigate the perspectives, beliefs, and knowledge of medical professionals regarding FND, identifying challenges and opportunities for

enhancing the treatment and management of patients affected by this puzzling disorder.

Aims and Objectives:

The goal of the study herein is to explore the doctors' opinions on the Functional Neurological Disorder (FND). The research aims to understand how doctors perceive, administer and diagnose FND, including the treatment strategies employed. The objective of this research goal is to assess the current attitudes and examine the potential barriers and strategies for intervention that would improve the diagnostic accuracy and compassion of healthcare delivery for people with FND.

Methodology:

The research will use a cross-sectional survey methodology. Participants will consist of doctors from different fields, such as neurology, psychiatry, and primary care. The questionnaire will include multiple-choice inquiries on subjects regarding FND diagnosis, treatment, and beliefs. The questionnaire will be conducted online through a safe platform or sent through email or given out in person at conferences or meetings. Data analysis will consist of examining descriptive statistics and conducting thematic analysis to uncover prevalent themes in physician perspectives on FND.

Survey Questions:

1. Designation
2. Specialty
3. Are you aware of the condition "functional neurological disorder"?
4. How often do you see patients with unexplainable neurological symptoms with normal workup?
5. What do you think about a patient labeled as having "functional symptoms"?
6. How detailed is your workup before labeling the patient as having a "functional illness"?
7. Do you think such patients always have a triggering emotional event preceding the symptoms?
8. What do you tell the patient and their families about the symptoms?
9. Do you refer such patients to psychiatry for further assessment?
10. Do you think such patient need treatment?

The Research of Medical Science Review

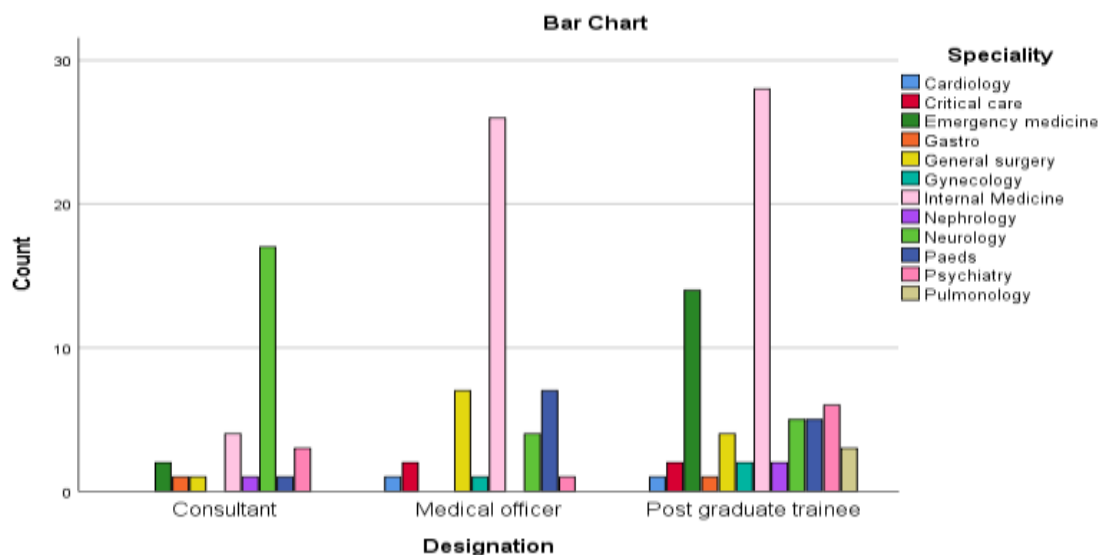
Dataset: The dataset for this study consisted of responses from 152 physicians who completed the survey.

Study Design:

This research employed a cross-sectional survey design to collect data from physicians practicing in various healthcare settings. The survey method allowed for efficient data collection and provided a snapshot of attitudes across a diverse group of physicians.

Results

The sample consisted of 152 physicians, consultants (19.7%), medical officers (32.2%), post-graduate trainees (48%). Among them the specialties were, neurology (17.1%), psychiatry (6.6%), internal medicine (38.2%), emergency medicine (10.5%), critical care (2.6%), Surgery including subspecialties (7.9%), pulmonology (2%), pediatrics (8.6%), gastroenterology (1.3%), nephrology (2%), cardiology (1.3%), gynecology (2%).



Are you aware of the condition "functional neurological disorder"?

		It is not an actual condition	It's a symptom of psychiatric illness	It's just the patient faking symptoms	Well aware	Total
Speciality	Cardiology	0	1	0	1	2
	Critical care	0	3	0	1	4
	Emergency medicine	1	4	5	6	16
	Gastro	0	1	1	0	2
	General surgery	0	5	1	6	12
	Gynecology	0	1	1	1	3
	Internal Medicine	8	17	6	27	58
	Nephrology	0	1	0	2	3
	Neurology	1	4	0	21	26
	Paeds	1	6	3	3	13
	Psychiatry	1	0	1	8	10
	Pulmonology	0	1	1	1	3
	Total		12	44	19	77

The Research of Medical Science Review

80% of neurologists and psychiatrists, along with 46% of internists, 37.5% of emergency physicians, and 50% of surgeons, perceived themselves as being well-informed. Interestingly, 7.89% of all

participants believed it was not a genuine condition, while 12.5% considered it as feigning symptoms.

How often do you see patients with unexplainable neurological symptoms with normal workup

		Every week	Multiple times a week	Once or twice a month	Rarely	Total
Speciality	Cardiology	0	0	1	1	2
	Critical care	1	0	1	2	4
	Emergency medicine	1	8	6	1	16
	Gastro	1	1	0	0	2
	General surgery	2	0	5	5	12
	Gynecology	0	0	0	3	3
	Internal Medicine	7	11	26	14	58
	Nephrology	0	2	1	0	3
	Neurology	5	14	6	1	26
	Paeds	2	1	3	7	13
	Psychiatry	0	9	1	0	10
	Pulmonology	0	0	3	0	3
Total		19	46	53	34	152

30% of participants reported encountering such patients several times a week. Notably, 8 of these were from emergency medicine, 11 from internists, and 14 from neurologists. Additionally, 30% of participants categorized these patients as seeking attention; among them, 18 were internists, 8 were ER physicians, and 6 were neurologists.

Interestingly, 2 psychiatrists shared this perspective. Moreover, about 28.9% believed these patients to have a psychiatric condition. In contrast, a mere 15% of participants considered these patients to genuinely suffer from an illness, with 4 of them being neurologists.

What do you think about a patient labeled as having 'functional symptoms'

		Anxious	Attention seeking	Genuine illness	Having a psychiatric illness	Surgery	Total
Speciality	Cardiology	0	2	0	0	0	2
	Critical care	1	3	0	0	0	4
	Emergency medicine	5	8	0	3	0	16
	Gastro	2	0	0	0	0	2
	General surgery	4	1	2	5	0	12
	Gynecology	1	1	0	1	0	3
	Internal Medicine	15	18	8	16	1	58
	Nephrology	2	1	0	0	0	3
	Neurology	4	6	4	12	0	26
	Paeds	2	4	3	4	0	13
	Psychiatry	1	2	5	2	0	10
	Pulmonology	1	0	1	1	0	3
Total		38	46	23	44	1	152

The Research of Medical Science Review

How detailed is your workup before labeling the patient as having a 'functional illness'

		Complete	Few relevant lab tests	History & Examination only	Referral to neurology for complete workup	Total
Speciality	Cardiology	0	0	0	2	2
	Critical care	3	0	0	1	4
	Emergency medicine	2	2	10	2	16
	Gastro	2	0	0	0	2
	General surgery	5	0	3	4	12
	Gynecology	2	0	0	1	3
	Internal Medicine	25	8	4	21	58
	Nephrology	2	0	0	1	3
	Neurology	16	2	6	2	26
	Paeds	4	1	2	6	13
	Psychiatry	0	0	0	10	10
	Pulmonology	1	1	0	1	3
Total		62	14	25	51	152

A significant 40% of participants opt for a comprehensive workup, with a majority of ER physicians primarily relying on patient history and

physical examinations. Impressively, 52% of respondents believe that these patients invariably have a triggering emotional event.

Do you think such patients always have a triggering emotional event preceding the symptoms?

		Maybe	No	Yes	Total
Speciality	Cardiology	1	0	1	2
	Critical care	1	0	3	4
	Emergency medicine	4	0	12	16
	Gastro	0	0	2	2
	General surgery	3	2	7	12
	Gynecology	2	0	1	3
	Internal Medicine	25	6	27	58
	Nephrology	0	1	2	3
	Neurology	6	6	14	26
	Paeds	7	0	6	13
	Psychiatry	5	2	3	10
	Pulmonology	1	0	2	3
Total		55	17	80	152

The Research of Medical Science Review

		What do you tell the patient and their families about the symptoms?				
		It's just in their head	Needs psychiatric assessment	Non organic but still a disorder	The patient is faking it	Total
Speciality	Cardiology	0	1	1	0	2
	Critical care	0	3	1	0	4
	Emergency medicine	2	10	3	1	16
	Gastro	0	0	2	0	2
	General surgery	1	8	3	0	12
	Gynecology	1	1	1	0	3
	Internal Medicine	7	34	17	0	58
	Nephrology	0	2	1	0	3
	Neurology	0	10	15	1	26
	Paeds	1	6	6	0	13
	Psychiatry	1	1	7	1	10
	Pulmonology	1	0	2	0	3
	Total		14	76	59	3

Half of the participants inform the families that the patient requires a psychiatric assessment, while 38% clarify that the condition remains a disorder even if it's non-organic in nature. Notably, a

significant 86% of respondents refer these patients to psychiatric services for further evaluation and management.

		Do you refer such patients to psychiatry for further assessment			
		No	Yes	Total	
Speciality	Cardiology	0	1	2	
	Critical care	0	4	4	
	Emergency medicine	0	12	16	
	Gastro	0	1	2	
	General surgery	0	10	12	
	Gynecology	0	3	3	
	Internal Medicine	1	49	58	
	Nephrology	0	3	3	
	Neurology	0	24	26	
	Paeds	0	12	13	
	Psychiatry	0	9	10	
	Pulmonology	0	3	3	
	Total		1	131	152

The Research of Medical Science Review

		Do you think such patient need treatment?					
		Neuro-psychiatric management	No	Psychiatric management only	Symptomatic only	Yes	Total
Speciality	Cardiology	0	0	0	0	2	2
	Critical care	0	0	3	0	1	4
	Emergency medicine	4	2	2	4	4	16
	Gastro	1	0	0	0	1	2
	General surgery	2	0	4	1	5	12
	Gynecology	0	0	1	0	2	3
	Internal Medicine	19	0	13	5	21	58
	Nephrology	0	0	0	0	3	3
	Neurology	8	0	3	2	13	26
	Paeds	1	1	2	2	7	13
	Psychiatry	7	2	0	1	0	10
	Pulmonology	1	0	0	0	2	3
Total		43	5	28	15	61	152

The majority of participants believe that these patients require treatment. About 40% are uncertain about the specific nature of the treatment, while 9.8% advocate for symptomatic treatment alone. Meanwhile, 28% are in favor of neuro-psychiatric management, and 18% lean towards psychiatric management exclusively.

Conclusion and Discussion:

The survey provides a comprehensive snapshot of physician attitudes and practices regarding Functional Neurological Disorder (FND) across various specialties. Notably, a significant portion of neurologists and psychiatrists, who are likely to encounter FND patients more frequently, consider themselves aware of the condition. A number of physicians still harbor some misunderstandings, with a smaller fraction doubting the credibility of FND and in the process perpetuating stigma. There are a large number of doctors who regularly come across patients with FND which makes the importance of identifying and managing this condition quite apparent. Still in many instances, FND patients are viewed as attention seekers or feigning their complaints as hysterical in nature which shows the persistent intolerance. It is commonplace that there is always a provoking emotional factor leading to FND but this may not be entirely accurate, as the disorder is known to have a number of contributors. Accordingly, effective communication is important in

addressing FND. While a psychiatric assessment is often recommended, authorities may do a better job at educating the patient and their relatives about FND, where it is emphasized that it is a true disorder no matter its causes. There are numerous options available in terms of medication. This paper highlights the need for further education, addressing stigma and integrating other specialties to enhance proper diagnosis and treatment of patients with FND.

Limitations:

This study is limited by the use of self-reported surveys data which may be affected by response bias. The conclusions drawn may be limited to the sample used and the setting of the study somewhat making their generalizability in doubt. Additionally, the study may not give a true picture of all the doctors' views regarding FND since the medical field has different attitudes.

List of abbreviations

FND: Functional Neurological Disorder
 DSM-4: Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition
 DSM-5: Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition.

The Research of Medical Science Review

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