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#### SPECIAL REPORT

### **Epilepsia**

# Functional/dissociative seizures: Proposal for a new diagnostic label and definition by the ILAE task force

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#### **Abstract**

The acceptability and validity of the term "psychogenic nonepileptic seizures" (PNES) have been questioned. Currently, numerous alternative terms, such as "conversion," "dissociative," "functional," "attacks," and "events," are used in both medical literature and clinical practice, leading to confusion among professionals and patients. The lack of a uniform diagnostic label is likely to impede research funding and service development. The International League Against Epilepsy (ILAE) Psychiatry Commission charged its task force focusing on these seizures to propose a more uniform and integrative terminology. Members of the previous ILAE PNES Task Force (2017-2021) helped to organize two workshops to try to build a consensus for a new terminology. These meetings involved experts by experience, clinicians, and researchers, including representatives of the Functional Neurological Disorders Society (an international professional organization), FND Hope (an international patient advocacy organization), and the American Epilepsy Society. The current task force (2021-2025) continued this work by reviewing the existing literature and debating the nomenclature and classification of seizures commonly labeled as PNES. The present proposal paper synthesizes the findings of this process. Based on our critical consideration of the literature, academic insights, and clinical experience, and noting the current international medical and psychiatric classification systems, the ILAE task force proposes the new term "functional/dissociative seizures" (FDS). This proposal paper explores the pros and cons of each component of the label "functional," "dissociative," and "seizure" from different perspectives, taking account of patient and health care professional acceptability, diagnostic and semiological considerations, underlying illness mechanisms, treatment provision, and healtheconomic, sociocultural, and linguistic factors. The dual characterization and use of a slash offer clinicians flexibility to adopt either "functional" or "dissociative,"

For affiliations refer to page 17.

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or both, in their practice depending on the patient's profile, their own preferences, and the cultural/linguistic context. The abbreviation "FDS" is recommend for use in scientific writings.

#### KEYWORDS

dissociative disorder, functional neurological disorder, neurology, nomenclature, psychiatry

#### 1 | INTRODUCTION

The acceptability and validity of the term "psychogenic nonepileptic seizures" (PNES) have been questioned by some experts in the field. Critics argue that the term "psychogenic" is dualistic and that it has pejorative connotations for many patients, and "nonepileptic" merely provides a negative characterization of these seizures, defining them by what they are not. These and other criticisms of the established label, as summarized below, have led to the exploration of an alternative name for the disorder.

Before proposing a new label, it is important clearly to characterize the condition we aim to name. Therefore, we begin with a definition of what we will propose to call "functional/dissociative seizures" (FDS). There are currently no specific biomarkers of neuropathogenesis of FDS. Consequently FDS, like many other neurological and psychiatric disorders, must be defined clinically, on the basis of reported subjective experiences and cognitive, autonomic, and behavioral phenomena (see Box 1).

Different traditions reflected in international classifications of FDS make it difficult to agree on a consensual terminology. In Diagnostic and Statistical Manual of Mental Disorders, 5th Edition (DSM-5), these seizures are classified as a conversion (or functional neurologic symptom) disorder, whereas in International Classification of Diseases, 11th Revision (ICD-11) they are classified as one of the subtypes of dissociative neurological symptom disorder. The International League Against Epilepsy (ILAE) replaced the term "pseudoseizure" >10 years ago and has been using the term PNES more recently. 5.6

Numerous international surveys, expert opinion papers, and literature reviews have critically examined the terminology of PNES over the past decade. 1,2,7-13 These publications have highlighted strengths and weaknesses of different terms and provided a useful platform for further reflection. Above all, they highlight the importance of a broadly consensual, comprehensive, universal term for these seizures and the disorder they characterize. Those who noted discomfort with the label PNES have called for

#### **Key points**

- "PNES" is criticized as "psychogenic" and implies mind-body dualism, and "nonepileptic" only defines the diagnosis negatively.
- PNES label controversy has led to the use of alternative terms, causing potential misunderstandings and diagnostic inaccuracies.
- The recommended term, "FDS," improves consistency in clinical practice and research internationally.
- The FDS double characterization gives physicians a margin of freedom in their practice to use one, the other, or both terms.
- The proposed term links seizures to diagnostic entities in the two major global systems, DSM-5 and ICD-11, currently in use worldwide.

a reexamination of the terminology. The use of many alternative terms in the scientific literature and in clinical practice (including "conversion," "functional," or "dissociative" "attacks," "seizures," or "events," among others) has contributed to confusion among professionals and patients. Despite significant clinical and research advances over the past 30 years, <sup>14</sup> the absence of a universally accepted diagnostic label is likely to have impeded better research funding, accurate coding, and the development of clinical services. This highlights the need for the adoption of a common language and the use of a new integrative term.

In this proposal paper, we will first summarize the key criticisms that have been made of the term PNES. Next, we will describe the process by which we developed our proposal. This description will include a synthesis of previous studies on alternatives to the term PNES and an account of the collaborative effort of international experts representing different professions as well as patient advocacy groups underpinning this process. Lastly, we will propose a new terminology for FDS and consider its pros and cons from different perspectives.

#### **BOX 1** Definition.

FDS are paroxysms of impaired awareness, altered perception, and reduced behavioral control that usually occur in the context of emotional/physiological arousal. FDS semiology is usually consistent over time but can change in response to individual experiences and environmental influences.

- On a subjective and cognitive level, FDS entail distortions of perceptual awareness as well as a reduction of cognitive flexibility and self-control, which may be associated with experiencing disconnectedness, derealization, depersonalization, panic, and mental block/slowing or racing thoughts. Ictal (during the seizure) impairment of awareness is common and may be reported as complete or partial loss of awareness. Postictally, patients typically report partial or complete amnesia for ictal experiences. Amnesia may also be reported after seizures in which patients exhibited partial responsiveness.
- Autonomic symptoms such as dizziness, tingling sensations, and palpitations are common, and most seizures are associated with objective autonomic activation.
- Behavioral manifestations are highly heterogenous and range from akinetic to hyperkinetic presentations. Responsiveness may be markedly reduced or fully preserved.
  - Movements can generally be related to innate behavioral patterns (e.g., tonic immobility or thrashing) and culturally or individually meaningful expressions of distress (e.g., swoons or convulsions) and may incorporate symptoms associated with prior experiences.
  - Behavior is experienced as involuntary but can exhibit signs of retained movement control. Protective reflexes (e.g., corneal or blink reflex) are usually preserved, even while patients are otherwise unresponsive to external stimulation.

FDS may occur as isolated events (e.g., in response to particular circumstances), or in the context of an FDS disorder in which distress or disability are caused by recurrent FDS or anxiety about such seizures.

FDS may be a stand-alone diagnosis or part of another multifaceted neuropsychiatric condition such as polysymptomatic functional neurological disorder (FND), complex posttraumatic stress disorder, or other dissociative disorders. Patients with FDS are at increased risk of receiving additional medical diagnoses, including epilepsy and headache disorders. These may reflect true comorbid conditions in some cases, but there is also an elevated risk of misdiagnosis due to overlapping symptomatology and diagnostic challenges.

The mechanisms and neural correlates of FDS are the subject of ongoing research. Classical psychodynamic interpretations (psychogenicity, conversion disorder) have evolved into a broader biopsychosocial framework that incorporates, for example, inferential accounts of brain function with cultural meaning-making or social determinants of illness with brain network dysfunctions.

Although FDS is not a diagnosis of exclusion, the delineation of boundaries with related or superficially similar conditions is part of the extended definition. As such, FDS are differentiated:

- From paroxysmal presentations of motor functional neurological disorder (mFND), in that mFNDs do not entail accompanying perturbations of awareness;
- From panic attacks, in that awareness is usually altered in FDS, and FDS are associated with more complex motor phenomena. Whereas panic attacks are characterized by predominant feelings of panic, subjective feelings of panic are mostly absent in FDS;
- From neurological paroxysms such as epileptic seizures, syncope, migraines, or paroxysmal dyskinesias, in that these paroxysmal disorders produce different patterns of subjective symptoms and visible manifestations, and are associated with neuropathophysiological changes that do not occur with FDS;
- From malingering, in that behavior during FDS is experienced as involuntary.

# 2 | CRITICISMS OF THE TERM "PNES"

The first two parts of the current term ("psychogenic" and "nonepileptic") have attracted most negative comment.<sup>1</sup>

The term "psychogenic" is undesirable and perceived as pejorative by most patients. <sup>15</sup> "Psychogenic" is often understood as purely psychological, without a "real" organic basis. Patients can perceive it as accusatory, invalidating, and extremely stigmatizing. This term often leads them

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to think, "Am I being seen as crazy? Is all of this just in my head?" This feeling of rejection can become a major obstacle to the acceptance of the diagnosis and to engagement in appropriate treatment. It tends to be perceived as dismissive and may lead to patients receiving less support, less empathy, and more criticism or skepticism from family, friends, and even administrative entities or health care organizations. <sup>16</sup>

For clinicians, "psychogenic" implies a purely psychological process, traditionally in the sense of psychosomatic conversion. This reductive perspective ignores the complex interplay between autonomic, neuroendocrine, and brain network dysfunction related to the occurrence of FDS. 17-21 "Psychogenic" also fails to reflect patients' experiences of their seizures as a largely physical problem commonly associated with factors such as pain, fatigue, or hyperventilation. 22

The second term, "nonepileptic," is a negative wording that distinguishes these seizures from epilepsy but does not define the disorder itself. Current best practice promotes an approach to diagnosis based on the clinical phenotype and not merely the exclusion of alternative diagnoses. This diagnostic process, often involving multiple medical subspecialities, could be enhanced if clinicians around the world used consistent terminology with a more explicitly descriptive name.

The use of the term "seizure" has also been challenged, mainly by epileptologists and other clinicians who see patients with similar presentations. <sup>26</sup> It has been argued that this word should be used exclusively for epileptic seizures and that its use for other paroxysmal events could increase the risk of confusing epileptic and nonepileptic phenomena. However, the term "seizure" has historically been used very widely, and the limitation of the use of this word would not reflect current common usage.

# 3 | NOMENCLATURE DECISION-MAKING PROCESS

# 3.1 | Mandate to develop a new terminology

Discussions about a new terminology for PNES started in meetings of the 2017–2021 ILAE PNES Task Force. To advance the debate, members of this task force helped to organize two workshops with the intention of seeking a consensus for a new terminology. However, the discussion about a new label for PNES was not concluded. When the current FDS Task Force was constituted in 2021, the ILAE Psychiatry Commission mandated it to propose a new terminology for PNES. Since its first meeting on January

22, 2022, it has been the priority of the current ILAE FDS Task Force to finalize the negotiations about a new label for these seizures.

In their discussions, the task force drew primarily on the expertise of its members, representing all continents around the world and with many years of clinical and research experience with FDS. The ILAE FDS Task Force was aware that changes in terminology are always challenging, <sup>24</sup> that each component of any proposed new terminology would be deemed controversial by some, and that it is unlikely that there would be one label, suitable for all clinical and scientific contexts and cultures, that would fully satisfy all stakeholders. In their deliberations, the task force recognized the importance of aligning the proposed terminology with international classification systems, and that a proposal excluding the terms "functional" (DSM) or "dissociative" (ICD) could create challenges for professionals working in health care systems using one of these two nosologies. Figure 1 summarizes the timeline of the process culminating in the current proposal document.

# 3.2 | International stakeholder discussion

The first broader international stakeholder discussions that fed into the development of the present proposal document took place during two multidisciplinary workshops about the terminology for PNES held in December 2020. These discussions involved experts by experience, clinicians, and researchers, including representatives of the Functional Neurological Disorders Society (FNDS), an international organization of professionals, FND Hope International, a patient advocacy group, and the American Epilepsy Society (AES). The workshops used a "flipped classroom" model, whereby participants were invited to view five videos covering different perspectives on the terminology, such as patient views, pediatric perspective, etiological points, epileptologist perspectives, and FND specialist views. These videos were provided by FND Hope international and by clinicians from the UK, USA, Australia, and France. In addition, during the workshops, participants were invited to complete brief surveys about naming of PNES.

The first workshop, hosted by the FNDS, was held online on December 3, 2020, and was an open access forum, aiming to capture a broad range of perspectives. It included a brief review of the terminology, a presentation of a historical terminology timeline, and the results of previously published surveys about the preferred terminology. The seminar concluded with a moderated discussion.



**FIGURE 1** Summary of the proposal generating process. AES, American Epilepsy Society; FDS, functional/dissociative seizures; FNDS, Functional Neurological Disorders Society; IEC, International Epilepsy Congress; ILAE, International League Against Epilepsy; PNES, psychogenic nonepileptic seizures.

This workshop had 314 registered participants, primarily from North America (49%) and Europe (40%), with additional participants from Asia (5%), South America (4%), Australia (1%), and Africa (1%). Participants were from various fields: neurologists (15%), psychologists (14%), psychiatrists (6%), neuropsychologists (5%), neuropsychiatrists (4%), medical doctors (12%), researchers (13%), students (4%), social workers (3%), physiotherapists (2%), nurses (2%), neurodiagnostic technologists (1%), communication managers (1%), occupational therapists (1%), directors of education (1%), and medical instructors (1%). Among the participants, 17% were patients and 2% were family members of an FDS patient.

The second online meeting took place on December 7, 2020, during the AES Annual Meeting. It was accessible to participants who had paid to attend the Annual Scientific Meeting of the AES. It was organized by the PNES Special Interest Group of the AES, and included different professionals (neurologists, pediatrics, clinical psychologists, and psychiatrists) and participants from FND Hope and US National Association of Epilepsy Centers.

After the workshops, participants were invited to complete two brief surveys, one covering their opinion on the most important issues in the naming of PNES and another inviting open responses to the flipped classroom materials.

Wardrope et al. summarized the discussions in these two workshops, including the flipped classroom materials, chat (spoken and written content from the sessions), and postmeeting online surveys. They identified eight themes related to nomenclature change: mechanisms, therapeutic benefit, communication, stigma, dissonance and disagreement, barriers to care, how labels shape

people, and taking into account patients' and clinicians' perspectives. The results of the postmeeting surveys indicated that the most important elements to consider in the choice of a name are the minimization of stigma and help for patients/families to understand and engage with the diagnosis. Moreover, the survey findings showed that the most commonly preferred prefixes were "functional" and "dissociative," and the preferred suffix was "seizure."

Although these two seminars demonstrated broad support for the identification of a unified terminology, no definitive conclusion on a proposed name was reached. Accordingly, the decision-making process about a new label became the main objective of the 2021–2025 ILAE FDS Task Force.

# 3.3 | Further work within the ILAE FDS Task Force

#### 3.3.1 Methodological aspects

Since 2022, members of the FDS Task Force have been actively working on the nomenclature.

The previous stakeholder consultations and the resulting surveys clearly showed that a new survey, however broad, would not allow us to reach an easy consensus on a new terminology and that it would only continue to highlight the difference between existing positions. For instance, a recent international online survey of 1003 physicians carried out independently of the ILAE terminology development process, including neurologists and psychiatrists, revealed that the most widely preferred

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prefix for describing seizure disorders was "psychogenic," followed by "functional," and the most favored suffix was "seizure."<sup>13</sup>

We considered whether the Delphi method might help us to advance a consensual agreement. However, we note the methodological concerns about the use of the Delphi process in the development of nomenclature. We also had concerns about the use of a Delphi process in relation to this particular health problem. Who should be invited to participate in the process? How could a fair representation of mental health patients be assured? How could we ensure that low-income countries would get a voice, or representatives of countries using the ICD rather than the DSM for clinical coding or billing purposes? We concluded that it would not be feasible to create a fully representative Delphi process capable of giving diverse participants a voice.

Although the Delphi method is effective for consolidating expert opinions, it is not the best tool for updating medical nomenclature. Finding consensus through repeated surveying risks reproducing "current practice" rather than developing new concepts through iterative interdisciplinary dialogue.<sup>28</sup>

Building on the prior endeavors to advance the discussion of a new terminology, the task force decided that it was more appropriate, in this particular context, to pursue an expert-based method of developing a new terminology, similar to the approaches pursued in other medical fields, such as movement or balance disorders. <sup>29,30</sup> This approach started with a comprehensive review and synthesis of the previous literature on the nomenclature and classification of FDS.

#### 3.3.2 | Narrative review on literature

To inform our reflections and discussions, it was essential to have reviewed the available literature on the subject. We initially conducted a literature search in 2022 on MEDLINE. The selected key words were as follows: (functional seizure) OR (dissociative seizure) OR (PNES) OR (psychogenic seizure) OR (psychogenic non epileptic seizure) OR (non-epileptic seizure) OR (nonepileptic seizure) OR (pseudoseizure) AND (terminology) OR (nomenclature) OR (survey) OR (name) OR (classification). There was no publication date limit. We only screened papers published in English. All study types were taken into consideration (including experimental and observational studies, reviews, case studies, commentary, and opinion pieces). This search yielded 226 results, of which 37 articles appeared relevant based on our review.

To ensure the comprehensiveness of our review, we applied an additional technique in December 2023: forward and backward citation chasing using the Citation Chaser tool (https://estech.shinyapps.io/citationchaser/; looking for relevant papers cited in the identified literature or citing identified publications). This literature search was complemented by hand searches.

This yielded 1212 references. After removing 110 duplicates, we screened 1102 articles and retained 111 for full-text review (Supporting Information Figure A1). Ultimately, 50 articles were included in the review, comprising 19 original studies, seven reviews, and 24 commentary/opinion papers. The publications that were considered are listed in Tables 1 (original studies), 2 (reviews), and 3 (commentary/opinion papers).

#### 3.3.3 Discussions and votes

After stakeholder consultations and their review of the evidence, the task force members held further discussions and a series of votes. In their votes, the task force members considered the stakeholders' opinions, the results of previous surveys, their academic insights and clinical experience, and their consideration of the current international medical and psychiatric classification systems (DSM-5 and ICD-11).3,4 The task force members did not agree on a single term, but with the understanding that consensus does not mean unanimity, and that it is reached when everyone in the group assents to a decision even if some do not fully agree to or support all aspects of it, the group reached consensus on a joint proposal (Supporting Information Table A1). The new term "functional/dissociative seizures," combining the terms that emerged as most popular in the surveys conducted after the previous webinars, evolved as the preferred consensus (see Supporting Information Appendix).

#### 3.3.4 | Consultations

Several consultations and discussions were held within the ILAE as well as with members of other organizations throughout the process. The insights gathered from these consultations were integrated into the nomenclature proposal process.

#### International League Against Epilepsy

The task force had discussions with the Psychiatry Commission, Methodology Commission, Terminology Commission, Standards and Best Practice Council, Executive Committee, and the president of the ILAE.



**TABLE 1** Original studies in chronological order.

Study	Methods and population	Main findings
Stone et al. <sup>15</sup>	Interviews were conducted with 102 consecutive general neurology outpatients in Edinburgh.	The terms "hysterical seizures" (48%) and "symptoms all in the mind" (89%) were highly offensive to patients. No significant differences were found between the terms "pseudoseizures," "psychogenic seizures," and "nonepileptic attack disorder." The terms "stress-related seizures" and "functional seizures" were the least offensive diagnostic labels.
Shneker & Elliot <sup>31</sup>	A questionnaire survey about the knowledge of, beliefs about, and attitudes toward the diagnosis and management of FDS was conducted among 83 physicians working at Ohio State University.	A majority (85%) of participants felt that the term "pseudoseizure" is appropriate to use.
Plug et al. <sup>32</sup>	A qualitative and quantitative analysis of patient–doctor outpatient interactions was conducted to assess patients' own preferences of different diagnostic labels; 21 patients (8 epileptic, 13 FDS) from Royal Hallamshire Hospital in Sheffield, UK were included.	Patients with FDS preferred labels such as "fit" and "blackout" and avoided the terms "seizure" or "attack."
Mayor et al. <sup>33</sup>	130 clinicians from the UK and Ireland participated in an Internet survey.	The most commonly used terms at diagnosis were "nonepileptic attacks" (61.9%) followed by "nonepileptic attack disorder" (52.4%) and "nonepileptic seizures" (46.8%). The least used terms were "conversion seizures" (2.4%) followed by "psychogenic seizures" (4.8%) and "conversion disorder" (6.3%).
Sahaya et al. <sup>11</sup>	115 HCP (primary care, neurology, and in-patient nurses) practicing at Columbia University Hospital participated in a questionnaire regarding their opinion of FDS.	"Nonepileptic seizure" was the preferred diagnostic label
LaFrance et al. <sup>34</sup>	A survey about the diagnostic and treatment practices for FDS was conducted with 96 practicing clinicians from Chile and 307 clinicians from the USA.	The most commonly used term was "nonepileptic seizures" both in Chile (36%) and in the USA (60%). In Chile, the second most commonly used term was "pseudoseizures" (31%) followed by "psychogenic seizures" (16%), and in the USA, the second most commonly used term was "spells" (11%) followed by "psychogenic seizures" (7%).
Morgan et al. <sup>35</sup>	A survey conducted among 146 parents/guardians of children with FDS.	The term "nonepileptic events" followed by "functional seizures" and "nonepileptic attack disorder" were the least offensive terms. "Hysterical seizures" and "psychogenic seizures" were most offensive to participants.
Wichaidit et al. <sup>36</sup>	A national survey about pediatricians' current diagnostic practice for PNES was conducted in Denmark.	No consensus on the terminology. The terms most frequently used were "functional seizures" followed by "psychogenic nonepileptic seizures."
Karterud et al. <sup>37</sup>	Semistructured interviews with a cohort of 11 adolescents and young people (14–24 years old) pertaining to their experience of being diagnosed with "nonepileptic seizures."	Participants in this study (8/11) reported that they had resisted their diagnosis of "nonepileptic seizures" and had felt immediately alienated from the diagnosis—and the clinician giving the diagnosis—when the words "psychogenic" or "mental" (as in mental health) were used. The words implied a mental health problem, which did not resonate with their experience of self (self-image).



Study (Continued	Methods and population	Main findings
Monzoni & Reuber <sup>38</sup>	Video-recorded encounters between three neurologists with extensive experience in diagnosing and treating patients with PNES, and 17 patients at two clinical neuroscience centers (Sheffield Teaching Hospitals NHS Foundation Trust and Southern General Hospital, NHS Greater Glasgow and Clyde Health Board).	This study demonstrates that doctors' selection of a specific label is one part of a series of complex activities. Doctors tend to use a range of different labels as the consultation progresses. Their choice of labels is influenced by the linguistic formulations through which labels are delivered in interaction, and by patients' interactional contributions. In practical terms, the data provide support for the idea that, when presenting the diagnosis of PNES, a specific and clear label for the seizures should be provided at the beginning of the encounter.
Aatti et al. <sup>39</sup>	An online survey was conducted in France with 963 psychiatrists.	44% of participants used the term "psychogenic nonepileptic seizures" in their clinical practice; 37% used the terms "functional"/"dissociative"/"conversion" seizures; 12% used the term "pseudoseizures" (12%) and 4% "hysteroepilepsy."
McWilliams et al. <sup>40</sup>	66 doctors attending the UK child and adolescent psychiatry conference participated in a semistructured bespoke questionnaire.	The term "nonepileptic seizures" was the most preferred name.
Yogarajah et al. <sup>41</sup>	120 general practitioners working in London, UK, responded to a survey about FDS.	The most popular terms among the participants were "pseudoseizures" (preferred by 75%) and "nonepileptic events"/"attacks"/"seizures" (preferred by 76.7%).
Loewenberger et al. <sup>42</sup>	Online survey conducted with 87 healthy adults involving a choice of eight different diagnostic terms ("functional nonepileptic attacks"/"FNEA," "dissociative seizures," "functional seizures," "psychogenic seizures," "nonepileptic attack disorder"/"NEAD," "pseudoseizures," "conversion disorder," and "hysteria"); participants ranked each term based on preference (1, most preferred; 8, least preferred), and on the level of offensiveness.	The most preferred term was "functional nonepileptic attack" followed by "dissociative seizures" and "functional seizures." The least offensive term was "functional nonepileptic attack" followed by "functional seizures." The most offensive terms were "pseudoseizures," "dissociative seizures," "psychogenic seizures," and "hysteria."
Dastgheib et al. <sup>43</sup>	Questionnaire study about functional/dissociative seizures conducted among 69 psychiatrists and neurologists practicing in Iran.	The results showed that the term "psychogenic nonepileptic seizures" was the most preferred term.
Loewenberger et al. <sup>44</sup>	An online survey about the preferences for, and offensiveness of, 11 common diagnostic terms for FDS was conducted with 39 patients diagnosed with FDS. Also, semistructured interviews exploring the experience of FDS diagnosis were conducted with 13 patients.	The most preferred terms were "nonepileptic attack disorder"/"NEAD," "functional seizures," "functional nonepileptic attacks"/"FNEA," and "dissociative seizures," and the terms did not significantly differ from one another. The least offensive terms were "NEAD" followed by the terms "functional seizures" and "FNEA." The authors proposed the terms "functional nonepileptic attacks" and "functional seizures."
Asadi-Pooya et al. <sup>13</sup>	An international online survey was conducted with 1003 physicians (neurologists and psychiatrists).	The most preferred prefix was the term "psychogenic" followed by the term "functional." The most preferred suffix was the term "seizure."
Samuels & Pretorius <sup>45</sup>	Semistructured individual interviews were conducted with 13 HCP (clinical psychologists, neurologists, psychiatrists, and general practitioners) working in Western Cape in South Africa and specializing in FDS.	9 HCP found diagnostic labels such as "functional seizures," "pseudoseizures," "conversion disorder," "psychogenic nonepileptic seizures," and "nonepileptic seizures" inappropriate and stigmatizing. They said that these terms affect their relationship with their patients.



#### TABLE 1 (Continued)

Study	Methods and population	Main findings
María Marta et al. <sup>46</sup>	Semistructured interview with 19 patients with FDS to explore the patients' experiences regarding the diagnosis of FDS.	Most of the patients $(n=9)$ used the term "seizure" to refer to their condition. Specifically, in Spanish the term "seizure" can be translated as "convulsion" or "crisis" (5 patients used the term "convulsion," and 4 used the term "crisis"). 4 patients used the term "attack"; 2 patients used the term "episodes," and 2 patients used the term "faint."

Abbreviations: FDS, functional/dissociative seizures; FNEA, functional nonepileptic attacks; HCP, health care providers; NEAD, nonepileptic attack disorder; NHS, National Health Service; PNES, psychogenic nonepileptic seizures.

TABLE 2 Reviews.

Study	Methods and population	Principle results
Schmutz <sup>47</sup>	A critical review and perspective paper.	The author suggested that "dissociative seizures" and "conversion disorder with seizures" were the appropriate terms for FDS. In contrast, the author highlighted major problems with the term "psychogenic nonepileptic seizures" or similar constructs.
Brigo et al. <sup>48</sup>	Investigated the most common English terms used to describe FDS on Google and in PubMed.	The results highlighted that there is a lack of internationally accepted terminology for FDS and a broad spectrum of synonyms used to refer to FDS in the medical literature. The five terms most frequently used in PubMed were: "psychogenic non(-)epileptic seizure(s)," followed by "pseudo(-)seizure(s)," "non(-)epileptic seizure(s)," "psychogenic seizure(s)," and "non(-)epileptic event(s)." The five most frequently used terms in Google were: "psychogenic non(-)epileptic seizure(s)," followed by "non(-)epileptic event(s)," "psychogenic attack(s)," "non(-)epileptic attack(s)," and "psychogenic non(-)epileptic attack(s)." The authors suggested the term "functional nonepileptic events" should be used.
Ding & Kanaan <sup>49</sup>	Literature review on the terminology of conversion disorder; included 7 articles.	Neurologists seem to prefer the terms "functional" and "psychogenic." The term "psychogenic" is perceived as offensive for patients. The term "nonepileptic/organic" was popular among both groups.
Rawlings & Reuber <sup>10</sup>	A systematic search of 3 databases (Web of Science, PubMed, and CINAHL) conducted in 2017 about attitudes and perceptions of health care providers toward FDS.	The authors highlighted the uncertainty about the labeling of FDS. The majority of HCP seem to prefer an etiologically neutral term (i.e "nonepileptic seizures," "nonepileptic attacks," "nonepileptic attack disorder"). The term "psychogenic nonepileptic seizures" seems to be in less common use, and terms such as "dissociative seizures," "conversion seizures," and "functional seizures" were rarely used. The term "pseudoseizure" still seems to be used by some HCP.
Asadi-Pooya et al. <sup>2</sup>	Systematic review of the terminology of FDS based on 30 previous publications.	The authors suggested that the term "functional seizures" was most acceptable.
Wardrope et al. <sup>1</sup>	This paper summarized two multidisciplinary discussions about the terminology for FDS organized in December 2020 (involving patients, clinicians, and researchers and hosted by the American Epilepsy Society and the Functional Neurological Disorders Society).	The article summarized the advantages and disadvantages of different terms at multiple levels. The most preferred suffix was "seizures," and the most preferred prefix was "functional."
Huff & Murr <sup>50</sup>	Narrative review and perspective paper.	According to the authors, the term "pseudoseizure" should be regarded as jargon. They encouraged the use of the term "psychogenic nonepileptic seizures" (or alternatively, "spells").



**TABLE 3** Opinion/commentary papers.

Study	Principle results
Slavney <sup>51</sup>	The author emphasized that the term "pseudoseizure" is the most suitable term.
Scull <sup>52</sup>	The author discussed different labels for "FDS" and argued that the term "nonepileptic seizures" was the most preferable one.
LaFrance <sup>53</sup>	The author highlighted the pros and cons of the term "attack" and "seizure" and argued in favor of the term "seizure."
Benbadis <sup>54</sup>	The author highlighted the pros and cons of the terms "attack" and "seizure" and argued in favor of the term "attack."
Karam <sup>55</sup>	The preference of the author is the term "nonepileptic seizure."
Sethi et al. <sup>56</sup>	The authors preferred the term "seizure."
Cowan <sup>57</sup>	The author argued that, if there is no indication of psychogenic pathophysiology, the label "cryptogenic nonepileptic event" should be used.
Ramos et al. <sup>58</sup>	The authors argued that the term "seizure" is more concise than the terms "attack" and "event."
Landau <sup>59</sup>	The author discussed the negative connotation of the terms "pseudoseizures," "psychogenic," and "nonepileptic" and argued in favor of terms such as "functional brain spell" or "functional brain attack."
O'Hanlon et al. <sup>60</sup>	The authors suggested that the term "pseudoseizure" should be replaced with the term "psychogenic nonepileptic seizures."
Sethi <sup>61</sup>	The author suggested that the term "psychogenic" should be used only when there is a psychogenic origin.
Reilly et al. <sup>62</sup>	A collaborative multidisciplinary approach is needed to find a consensual term for "FDS."
Labate & Gambardella <sup>9</sup>	The authors argued in favor of the term "seizure" and disagreed with the term "functional."
Tannemaat & van Dijk <sup>63</sup>	The preference of the authors is the term "psychogenic nonepileptic seizures."
Brigo et al. <sup>64</sup>	The authors argued against the use of the term "seizure" and suggested the term "event" for FDS and discussed the necessity to replace the term "psychogenic."
Brigo et al. <sup>65</sup>	The authors discussed the use of "PNES" and other new terminology such as "functional nonepileptic events."
Barron & Rotge <sup>7</sup>	The authors argued that the term "psychogenic" is wrong and stigmatizing and the term "nonepileptic" is rejecting.
Kerr & Stern <sup>66</sup>	The authors argued in favor of the term "dissociative seizures" and against the term "functional."
Tolchin et al. <sup>12</sup>	The authors discussed the difficulties of achieving different goals (i.e., therapeutic, diagnostic, etiological) by one consensual name and highlighted the importance of a multidisciplinary approach.
Duncan <sup>8</sup>	The author discussed the pros and cons of different terms and highlighted the difficulty of satisfying the concerns of both patients and professionals.
Benbadis <sup>67</sup>	The author was not in favor of the terms "functional" and "seizure" and proposed the term "dissociative episodes."
Beghi et al. <sup>68</sup>	The authors argued that the term "PNES" is less confusing, and the term "functional" could be a good alternative.
Asadi-Pooya <sup>69</sup>	The author highlighted the importance of finding a consensual term based on evidence-based opinions.
Cerasa et al. <sup>70</sup>	The authors argued that there is not enough knowledge about the pathophysiological mechanisms underlying "FDS" and therefore could not be sure about the most appropriate terminology for FDS. They argued that there is a need to evaluate the progression of FDS in longitudinal neuroimaging studies. The authors highlighted the importance of finding a consensual term based on evidence-based opinions.

Abbreviations: FDS, functional/dissociative seizures; PNES, psychogenic nonepileptic seizures.

Following these discussions, we took into account the positions and arguments of these bodies and individuals and integrated their arguments into the decision-making process.

#### Stakeholder organizations

The task force also sought opinions and perspectives from outside ILAE. It communicated with partner organizations, including FNDS and FND Hope, colleagues, and patients worldwide about the proposed terminology.

# 4 | PROPOSED NEW TERMINOLOGY

# 4.1 | Pros and cons of the new terminology

Throughout our work, we have striven to consider how a new terminology would affect the acceptability of the diagnosis to patients and health care professionals, affect treatment provision, and make sense from a diagnostic/



**TABLE 4** Overview of the main arguments for and against the use of the term "functional."

	Arguments for	Arguments against
Acceptability to patients	Most acceptable and least offensive to patients. <sup>1</sup> Accords with "Functional Neurological Symptom Disorder," the overarching DSM-5 term. <sup>3</sup> Accords with the use of "functional" in neurology and across some other areas of medicine (e.g., functional gastrointestinal disorders). <sup>71,72</sup> Facilitates the understanding of the diagnosis if the patient suffers also from other functional disorders. <sup>1</sup> Implies reversibility and may give hope. <sup>73,74</sup>	The term is too broad and does not always make sense to patients; it does not explicitly refer to psychological aspects of the diagnosis. <sup>66,67</sup>
Acceptability to health care professionals	Widely used in daily discourse by health professionals to communicate across specialties. 71,72  Accords with the term "Functional Neurological Symptom Disorder," the overarching DSM-5 term. 3  Accords with the formal use of the DSM-5 classification system in countries around the world for coding and billing purposes (i.e., USA, Canada).	Survey results showed "nonepileptic" and/ or alternatively "psychogenic seizures" to be terms preferred by health professionals. <sup>1,11,13</sup> The term "functional" is not recognized in ICD-11. <sup>4</sup> The term "functional" is used in different ways in medicine, potentially confusing patients and clinicians, e.g., functional medicine, an alternative medicine approach to chronic disease; functional MRI (imaging connectivity); functional capacity evaluation (assessment of physiological capacities related to job requirements).
Diagnostic/semiological level	Consistent with the recognition of these seizures as one of the subtypes of "functional neurological symptom disorder" in DSM-5 ( <sup>1–3,13,42</sup> ). FDS is often associated with other FNDs or other functional symptoms. <sup>75</sup> Symptoms of patients presenting multiple FNDs can be explained by one terminology. <sup>71,72</sup>	The term "functional" does not provide any specificity regarding mechanisms, etiology, or phenomenology, and has traditionally meant merely "not structural."
Treatment level	Psychoeducation may be facilitated by the distinction of pathologies in the central nervous system caused by changes in function vs. changes in structure. 73,74,76  Implies reversibility—that interventions that improve the function of the nervous system will improve symptoms. 73,74  Introduces the idea that the patient can take an active role by improving their level of functioning, encouraging empowerment and a feeling of self-efficacy. 77  Patient-friendly metaphors are available to explain changes in brain function. 78,79  Overcomes mind-body dualism; can be used to refer to FDS that are triggered by physical triggers (pain, fatigue, hyperventilation) as well as by psychological triggers. 77	Does not explain directly why psychological treatment (typically the treatment of choice) should be effective.  The term does not make an explicit reference to affective and behavioral aspects of FDS, which may be relevant.  The lack of a more explicit reference to a possible psychological etiology may increase the risk of patients continuing to seek medical investigations and treatments (e.g., medication).



#### TABLE 4 (Continued)

	Arguments for	Arguments against
Illness mechanisms	Appropriate term explaining the nonlesional etiology of FDS in a positive way. 42  The term functional is more adequate than the term "nonorganic" (the brain is an organ).  Highlights brain dysfunction and the neurobiological stress response. 80-82  Etiologically neutral and closely associates FDS with FND. 81  Broad term that is used across body systems and implies general mechanism. 66,67	The clear dichotomy between "functional" and "structural" pathology is oversimplistic. <sup>83</sup> Not sufficiently specific; many epilepsies, migraine, and manifestations of dystonia could similarly be considered "functional."  At group level, there is emerging evidence of abnormal connectivity in patients with FDS. <sup>84,85</sup> Structural brain pathology has been shown to increase the risk of developing FDS. <sup>82,86</sup> Also, newer evidence is showing both gray and white matter structural abnormalities and structural neuroplastic changes in patients with FDS after psychotherapy, weighing against the "hardware vs. software" structural/functional description.
Health-economic level	"Functional" neurological symptoms disorder is already used for coding and billing purposes in DSM-based health care systems in countries around the world (e.g., USA, Canada).  This label may help these seizures to be recognized and coded internationally in health systems using DSM-5. <sup>3,4</sup>	"Functional" neurological symptom disorder is not used for coding and billing purposes in ICD-based health care systems in countries around the world (e.g., European countries).
Cultural/linguistic level	A nonstigmatizing and accepted term by patients. 44  Acceptable term that could improve the recognition of the disorder internationally and cross-culturally. 2,13  Widely acceptable in different cultures and languages. 2,13	In medical practice, "functional" is an antonym to "structural," but its more common opposite in regular use is "dysfunctional." "Dysfunctional" may be a linguistically more appropriate descriptor.

Abbreviations: DSM-5, Diagnostic and Statistical Manual of Mental Disorders, 5th Edition; FDS, functional/dissociative seizures; FND, functional neurological disorder; ICD-11, International Classification of Diseases, 11th Revision; MRI, magnetic resonance imaging.

semiological perspective, in terms of illness mechanisms and in relation to health–economic and sociocultural/linguistic considerations. To understand the reasoning for the proposed new terminology, we would like to present the arguments supporting our choices, as well as potential counterarguments arising from different perspectives.

The "/" in the term "functional/dissociative seizures" is intentionally used to symbolize the possibility of choosing either term "functional" or "dissociative" depending on the clinical, cultural, or contextual relevance. It reflects a margin of freedom in terminology, allowing flexibility for clinicians and patients to adapt the language to individual preferences and local practices.

This task force terminology proposal takes account of the reflections summarized in Tables 4–6, in which the pros and cons of each part of this label ("functional," "/," "dissociative," and "seizure") are discussed. The order of these perspectives reflects the priority the participants of the previous webinars assigned to them.<sup>1</sup>

We note that we have added some arguments in the tables that have regularly been discussed between professionals in this field but not published.

#### 4.2 Synthesis

Based on the evidence and considerations presented in the tables above, we suggest that the term "FDS" should be adopted in future scientific research and clinical practice. Our primary motivation in making this proposal is to minimize stigma and help patients/families to understand and engage with the diagnosis. <sup>1</sup>

We should underline that the arguments presented in Tables 4–6 are exclusively based on studies published in English.

The term "functional/dissociative seizure" provides a degree of flexibility by offering a choice between the terms "functional" or "dissociative" or

**TABLE 5** Overview of the main arguments for and against the use of the term "dissociative."

	Arguments for	Arguments against
Acceptability to patients	Patients can readily understand that dissociation is like a disconnection of the mind from the body (loss of control, loss of body/mind unity). 87,88  Easy to accept and makes sense for patients.	Less familiar to the general public and might seem complex.  The term "dissociative" has been found to be offensive to some patients. <sup>44</sup>
Acceptability to health care professionals	Familiar to many clinicians (especially psychiatrists, psychologists, and psychotherapists).  One of the preferred term for many health care professionals.  Found useful in their interactions with patients.  87,88	No universally accepted definition of the concept of dissociation; used categorically in psychiatric nosologies/understood as a dimensional phenomenon in psychology.   Less common term outside the field of psychology/psychiatry.  The lack of knowledge about the meaning of dissociation at the psychopathological level might cause difficulties for some professionals.   The term dissociation might cause confusion with the disorganization of schizophrenia.   90
Diagnostic/ semiological level	As defined in ICD-11, dissociation is an "involuntary disruption or discontinuity in the normal integration of memories, thoughts, identity, affects, sensations, perceptions, behavior or control over bodily movements." That matches FDS semiology. Underscores the importance of psychological evaluation, specifically an exploration of dissociative tendencies.	Absence of term "dissociative seizure" in the diagnostic description of DSM-5. <sup>3</sup> DSM-5 use the term "dissociative" in a separate category of "dissociative disorders." Not all patients with FDS "dissociate"; i.e., some retain awareness and intact cognition with their seizure.
Treatment level	Aligned with therapeutic purposes that are very useful, i.e., psychoeducation; it can help patients to understand the mechanism of their disorder (loss of control, loss of body/mind unity, etc.). <sup>91</sup> Allows self-control of seizures by learning to avoid dissociation (e.g., through the use of grounding techniques or different "here and now" practices such or mindfulness). <sup>87</sup> Helps to empower patients and involve them in their healing process. Many patients can gain control over their FDS using grounding technique. <sup>92</sup> Might help patients with strong dissociative tendencies (typically in a posttraumatic context) to understand the link between posttraumatic dissociation and their seizures. <sup>93</sup>	In view of the strong link between trauma and dissociation in the previous literature, patients without a history of traumatic experiences may have difficulties accepting this label. This may interfere with their engagement in treatment.
Illness mechanisms	A broad definition of dissociation includes all temporary impairments of integrative brain functions and fully reflects FDS. <sup>4</sup> Most patients have a history of previous traumatic experiences, and an association between dissociative tendencies and traumatic experiences has been demonstrated. <sup>94</sup> Psychopathological explanations presenting the seizure as providing a dissociative escape from intolerable emotional or physical states. <sup>95</sup> Overlap between the neurobiological underpinnings of FDS and other dissociative phenomena (such as hypnotic states). <sup>96</sup> Abnormalities in several resting-state networks and their correlation with dissociation mechanism are highlighted. <sup>38</sup>	Nonspecific; term would be appropriate for other situations in which normally connected brain functions become disconnected such as epilepsy or sleep. 97  Dissociation is often related to traumatization, and not every patient with FDS has been traumatized or has high dissociative tendencies. 98  Understanding of the neurobiological underpinnings of dissociative phenomena is incomplete and needs further study. 70,99  Illness mechanisms of FDS seem to be heterogeneous. 98



#### TABLE 5 (Continued)

	Arguments for	Arguments against
Health–economic level	"Dissociative neurological symptom disorder" is already used for coding and billing purposes in ICD-based health care systems in countries around the world. <sup>3,4</sup> Helps to ensure that these seizures are recognized and coded better in health systems around the world.	"Dissociative neurological symptom disorder" is not used for coding and billing purposes in DSM- based health care systems. Possible difficulties with the coding of a disorder called "dissociative" in relation to the activities of neurologists.
Cultural/linguistic level	Not pejorative, globally neutral. <sup>66</sup> Many synonymous terms aligned with patient representations and cultures: disconnection, disassociation, loss of unity, loss of control, brain disconnection. <sup>88,91</sup>	Might have negative connotation in some cultures and languages and could contribute to stigma.

Abbreviations: DSM-5, Diagnostic and Statistical Manual of Mental Disorders, 5th Edition; FDS, functional/dissociative seizures; ICD-11, International Classification of Diseases, 11th Revision.

"functional/dissociative." The choice implied in the double characterization will allow physicians, patients, and their families to adhere to the proposed terminology while adapting their naming practice to particular circumstances, for instance, taking account of issues such as the patient's specific symptom and psychopathological profile or the cultural and health economic context. The "/" is intended to reflect this margin of freedom. Overall, the combined term including "functional" and "dissociative" should lead to a reduction of the great variety of names in current use, and to a convergence of clinical and scientific usage to a more uniform, consensual terminology. The term "functional/dissociative seizure" can be abbreviated as "FDS" (Table 7).

One of the most important advantages of this solution is that these two descriptive terms are already used in current international classifications: "functional" in DSM-5 and "dissociative" in ICD-11.<sup>3,4</sup> This is an important point and should help our proposed term to be recognized and coded in health systems around the world.

"Functional" is an appropriate term in this context, as it explains the nonlesional etiology of FDS in a positive way. Moreover, it is broadly accepted in expert and patient communities that FDS are one of the possible manifestations of FND, and that it is common for a patient to have more than one subtype of FND (including seizures). 40

The term "dissociative" is also appropriate. Its use is well established, especially in psychiatric and psychological scientific writings and clinical practice. It is useful for psychoeducational purposes and reflects current neurobiological and psychopathological concepts of FDS. It is easy to link a term describing a disruption of normal connectedness between ideas, acts, and sensory and motor

functions, and can help patients to understand the mechanism of their disorder.

Furthermore, "dissociative" allows patients with strong dissociative tendencies (typically in a posttraumatic context) to understand the link between posttraumatic dissociation and their seizures. In doing so, it can empower patients and engage them in their healing process as they learn to avoid dissociation through "here and now" practices such as grounding techniques or mindfulness.

The term FDS should be perceived as more neutral and less stigmatizing than "psychogenic," which may be (incorrectly) associated with the idea of the seizures being "purely psychological" in nature. 109 FDS may be seen as more reflective of the complex interplay between psychological and neurological factors that can contribute to these seizures. FDS acknowledges the role of the brain's function and the potential involvement of dissociation, where a person may feel disconnected from their surroundings or themselves during the episode. Using the term FDS identifies the importance of understanding the brain-mind-body connections in these conditions. 110 Overall, some individuals with these seizures may prefer the term FDS as it may feel less stigmatizing or judgmental, potentially fostering better acceptance and understanding of their neuropsychiatric condition.

Despite the ILAE's recent official adoption of the term "antiseizure medication" instead of the previous term "antiepileptic medication," the term "seizure" seems to be the most suitable and acceptable noun to use in the context of FDS. <sup>26</sup> Numerous surveys, literature reviews, and expert opinion pieces have identified no better, internationally acceptable alternative. Clearly, the term seizure requires clinicians to explain to their patients that the use of this word does not imply a diagnosis of epilepsy. It also does

**TABLE 6** Overview of the main arguments for and against the use of the term "seizure."

	Arguments for	Arguments against
Acceptability to patients	More acceptable to patients than other terms such as "attacks," "events," "spells," and "episodes." Helps some patients to feel validated, because it acknowledges their symptoms as real and significant.  The term "event" is very broad and minimizes the severity/reality of the disorder. The term "attack" is often related to the notion of fear or violence and might create confusion or distress.  The term "seizure" communicates the presence of a medical problem to health care providers.	Patients experiencing syncopelike episodes, blank spells, or absencelike attacks may not consider "seizure" an appropriate term for their paroxysmal symptoms. This may lead to misunderstanding or stigmatization for some patients. 7,53,54  Some patients do not tend to feel "seized" in FDS. 32  The most common metaphorical conceptualization patients use to characterize their seizure experiences is a space or place they go into or are stuck in. 32
Acceptability to health care professionals	Seems to be the most acceptable term to health care professionals in 2023 compared to the other terms such as "attacks" or "events."  Seems the most commonly used term by health care providers. <sup>13</sup>	Might cause confusion between functional/dissociative seizures and other types of seizures, <sup>53,54</sup> particularly with epilepsy in English.
Diagnostic/ semiological level	Used broadly across medical specialties and in everyday speech for shaking, jerking, loss of self-control, sensory disturbances, and changes in consciousness (with or without the motor components), which mark an illness/disease process whose cause needs to be investigated and clarified by the physician.  The term seizure is also adequate with FDS semiology.  Most FDS have a sudden start and clear ending.  Semiologically, patients' subjective symptoms and visible FDS manifestations closely resemble those of other types of seizures (such as epileptic, reflex anoxic, hypocalcemic, or hypoglycemic seizures).  Patients with FDS report an external locus of control and tend to experience their episodes as intrusive, sudden, and beyond their control.  The presence of "seizures" is one of the central aspects to determine the subtype of FND that patients present according to the DSM.  The presence of "seizures" is one of the central aspects in determining the subtype of dissociative neurological symptom disorder in ICD-11.   **Total Control of Services**  **Total Control of Serv	Events without loss of self-control and shaking like syncopelike episodes, blank spells, and absence may not be considered as "seizures."
Treatment level	The use of a term acceptable to patients (like "seizure") is an important step toward the acceptance of a treatment plan. 1.2  Allow explicit differentiation from other types of seizures: functional/dissociative, epileptic, hypoxic, metabolic. 1,103	The word "seizure" is closely associated with epilepsy and may increase the risk of misunderstanding FDS as a manifestation of epilepsy. <sup>1,67,100</sup> The confusion with epilepsy is an obstacle to appropriate treatment. <sup>67</sup> The term "seizure" in "antiseizure medication" (formerly named "antiepileptic drug") might suggest that these treatments are beneficial for FDS (which is not the case) and could cause confusion and be an obstacle to stopping or not prescribing ASM to patients with FDS. <sup>1</sup> Requires supplementary and clear explanations from physicians to convince patients that ASM is not effective for FDS.



TABLE 6 (Continued)

	Arguments for	Arguments against
Illness mechanisms	Studies using intracerebral electrodes suggest neural network dysregulation (with a pattern that differs to other seizure types). Like other seizures, FDS involve a sudden activation of the autonomic nervous system followed by relatively quick recovery. 104,105	Clear biological differences between FDS and other types of seizures (such as epileptic, reflex anoxic, hypocalcemic, or hypoglycemic seizures). <sup>101</sup> The term "seizure" should only be used for seizurelike episodes associated with biological changes sufficient to "explain" the paroxysmal subjective and visible manifestations. <sup>67</sup>
Health-economic level	Already used in DSM-5-TR: functional neurological symptom disorder, with attacks or seizures. <sup>3</sup> Already used in ICD-11: dissociative neurological symptom disorder, with nonepileptic seizures. <sup>4</sup> More specific in coding systems than alternative terms such as "attacks" or "events." <sup>1,12</sup> Could improve health care provision for patients. Using a "biomedical" term could facilitate the recognition of this symptom within health care systems (disorders with a psychological dimension are often undervalued as a reason for disability).	The broader use of the term "seizure" would make the distinction between epileptic and nonepileptic seizures in coding systems more challenging.
Cultural/linguistic level	Equivalents of the term "seizure" have traditionally been used for FDS in many other common languages (French, German, Spanish, and many more), and the continued use of this term in the context of FDS is therefore not problematic.  The term alternative "attack" is very problematic in some common non-English languages (such as Spanish, Farsi, Arabic, French), as it is often used for physical insults.  Etymologically, the term "seizure" is derived from Greek, meaning "take hold" as mentioned in several papers. 53,100,106  In English, it refers to "a very sudden attack of an illness"; thus, seizure is not limited to epilepsy. 107  The term "seizure" is used for all other types of nonepileptic seizures: hypoxic seizures, metabolic seizures, and impact seizures. 108  It is commonly used to describe a sudden bout of illness, characterized by reduced consciousness or behavioral control. 24 It can refer to epileptic seizures, FDS, hypoxic seizures, metabolic seizures, impact seizures (associated with concussion), and so on. Limiting its medical use to epilepsy only, and revoking the legitimacy of using this word for those experiencing other types of seizures, could contribute to the stigmatization and misunderstanding of these paroxysmal events in similar ways to the abandoned use of the term "pseudoseizures."	May contribute to misunderstandings of the diagnosis because of a strong association with epilepsy, particularly in English. <sup>1</sup>

Abbreviations: ASM, antiseizure medication; DSM-5-TR, Diagnostic and Statistical Manual of Mental Disorders, 5th Edition, Text Revision; FDS, functional/dissociative seizures; FND, functional neurological disorder; ICD-11, International Classification of Diseases, 11th Revision.

not imply that "antiseizure medications" are effective for FDS. Ultimately, the nonpejorative, nonjudgmental explanation of the diagnosis of FDS is always of fundamental importance, regardless of the label.

#### 5 | CONCLUSIONS

There is broad consensus that a unified term should be adopted for the clinical phenomenon we propose to

-Epilepsia<sup>\* | 17</sup>

TABLE 7 Overview of the main arguments for and against the choice between "functional" and "dissociative" symbolized by "/."

	Arguments for	Arguments against
Acceptability to patients	Allows the use of a term most appropriate for a particular patient.	Might seem confusing.
Acceptability to health care professionals	Allows professionals to use both or to use the term that best fits their particular practice and personal and scientific beliefs.	Could appear as a lack of affirmation, a weakness of the ILAE TF, and as a "politically correct" compromise.  Underscores the lack of unanimity on a single term between health care professionals and practices.
Diagnostic/semiological level	Aligned with the diagnostic criteria of the two international classification systems (DSM-5 and ICD-11). <sup>3,4</sup> More easily encompasses the heterogeneity of psychopathological profiles of patients.	Conveys different diagnostic conceptualizations from different conceptualizations.
Treatment level	Using both terms allows users to have a range of explanations and metaphors for psychoeducation and expands therapeutic options.	May confuse treatment plan if the diagnosis has different mechanisms.
Illness mechanisms	Offers different levels of understanding of these complex disorders whose illness mechanisms are not yet fully elucidated.	Highlights the absence of total certainty on the illness mechanism.
Health-economic level	Potentially allows recognition by all health systems in the world, which is essential for patients.	Can be confusing.
Cultural/linguistic level	Allows a degree of flexibility and adaptation to cultural preferences and avoidance of a term that might be culturally stigmatizing.	Underscores the lack of unanimity on a single term cross-culturally.

Abbreviations: DSM-5, Diagnostic and Statistical Manual of Mental Disorders, 5th Edition; ICD-11, International Classification of Diseases, 11th Revision; ILAE, International League Against Epilepsy; TF, task force.

call FDS. After careful consideration of the terminology from various perspectives—including patient and professional acceptability, treatment efficacy, underlying mechanisms of illness, diagnostic clarity, semiological, and socioeconomic, linguistic, and cultural dimensions—we conclude that "FDS" is the most appropriate term. This term reflects the best current consensus and should be consistently used in both clinical practice and scientific research.

By adopting the uniform, nonpejorative, internationally agreed term of "FDS," we should be able to improve scientific and clinical communication, reduce misunderstandings, and increase service provision for patients with FDS and opportunities for research.

It is crucial to encourage professionals, editors, relevant stakeholders, and organizations such as the World Health Organization to adopt and promote the use of the term "FDS," particularly in the international classifications (DSM, ICD). Future studies can assess the impact of this new terminology by examining its influence on diagnostic accuracy, treatment outcomes, and overall patient care.

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#### REFERENCES

- 1. Wardrope A, Dworetzky BA, Barkley GL, Baslet G, Buchhalter J, Doss J, et al. How to do things with words: two seminars on the naming of functional (psychogenic, non-epileptic, dissociative, conversion, ...) seizures. Seizure. 2021;93:102–10.
- Asadi-Pooya AA, Brigo F, Mildon B, Nicholson TR. Terminology for psychogenic nonepileptic seizures: making the case for "functional seizures.". Epilepsy Behav. 2020;104:106895.
- American Psychiatric Association. Diagnostic and statistical manual of mental disorders. (DSM-5). Washington, DC: American Psychiatric Publishing; 2013.
- ICD-11 Mortality and Morbidity Statistics. Available from: https://icd.who.int/browse11/l-m/en
- 5. LaFrance WC Jr, Reuber M, Goldstein LH. Management of psychogenic nonepileptic seizures. Epilepsia. 2013;54(s1):53–67.
- LaFrance WC, Baker GA, Duncan R, Goldstein LH, Reuber M. Minimum requirements for the diagnosis of psychogenic

- nonepileptic seizures: a staged approach: a report from the international league against epilepsy nonepileptic seizures task force. Epilepsia. 2013;54(11):2005–18.
- 7. Barron E, Rotge JY. Talking about "psychogenic nonepileptic seizure" is wrong and stigmatizing. Seizure. 2019;71:6–7.
- 8. Duncan R. Perspectives on a name. Epilepsy Behav. 2020;105:106986.
- Labate A, Gambardella A. Why should we change the term psychogenic nonepileptic seizures? Epilepsia. 2015;56(7):1178–9.
- Rawlings GH, Reuber M. Health care practitioners' perceptions of psychogenic nonepileptic seizures: a systematic review of qualitative and quantitative studies. Epilepsia. 2018;59(6):1109–23.
- 11. Sahaya K, Dholakia SA, Lardizabal D, Sahota PK. Opinion survey of health care providers towards psychogenic non epileptic seizures. Clin Neurol Neurosurg. 2012;114(10):1304–7.
- 12. Tolchin B, Perez DL, Szaflarski JP, Baslet G, Doss J, Buchhalter J, et al. What's in a name? Epilepsy Behav. 2020;112:107364.
- Asadi-Pooya AA, Brigo F, Trinka E, Lattanzi S, Adel Kishk N, Karakis I, et al. A global survey on the attitudes of neurologists and psychiatrists about functional/psychogenic/dissociative/nonepileptic-seizures/attacks, in the search of its name. Epilepsy Behav. 2023;145:109292.
- 14. Beimer NJ, LaFrance WC. Evaluation and treatment of psychogenic nonepileptic seizures. Neurol Clin. 2022;40(4):799–820.
- 15. Stone J, Campbell K, Sharma N, Carson A, Warlow CP, Sharpe M. What should we call pseudoseizures? The patient's perspective. Seizure. 2003;12(8):568–72.
- Eaves L, Simpson J, Reuber M. Experiences of individuals with functional/dissociative seizures with healthcare professionals: a systematic review and thematic synthesis. Seizure. 2025;131:35–49.
- 17. Aybek S, Perez DL. Diagnosis and management of functional neurological disorder. BMJ. 2022;376:o64.
- 18. Drane DL, LaRoche SM, Ganesh GA, Teagarden D, Loring DW. A standardized diagnostic approach and ongoing feedback improves outcome in psychogenic nonepileptic seizures. Epilepsy Behav. 2016;54:34–9.
- Brown RJ, Reuber M. Towards an integrative theory of psychogenic non-epileptic seizures (PNES). Clin Psychol Rev. 2016;47:55-70.
- Rai S, Foster S, Griffiths KR, Breukelaar IA, Kozlowska K, Korgaonkar MS. Altered resting-state neural networks in children and adolescents with functional neurological disorder. Neuroimage Clin. 2022;35:103110.
- 21. Madec T, Lagarde S, McGonigal A, Arthuis M, Benar CG, Bartolomei F. Transient cortico-cortical disconnection during psychogenic nonepileptic seizures (PNES). Epilepsia. 2020;61(8):e101–e106.
- Kozlowska K, Rampersad R, Cruz C, Shah U, Chudleigh C, Soe S, et al. The respiratory control of carbon dioxide in children and adolescents referred for treatment of psychogenic non-epileptic seizures. Eur Child Adolesc Psychiatry. 2017;26(10):1207–17.
- 23. Stone J. Functional neurological disorders: the neurological assessment as treatment. Pract Neurol. 2016;16(1):7–17.
- 24. Kozlowska K, Mohammad S. Functional neurological disorder in children and adolescents. Cham: Springer; 2023. p. 699–724.
- Espay AJ, Aybek S, Carson A, Edwards MJ, Goldstein LH, Hallett M, et al. Current concepts in diagnosis and treatment of functional neurological disorders. JAMA Neurol. 2018;75(9):1132–41.

1528167, 0, Downloaded from https://onlinelibrary.wiley.com/doi/10.1111/epi.18574 by Test, Wiley Online Library on [03/09/2025]. See the Terms and Conditions (https://onlinelibrary.wiley.com/terms-and-conditions) on Wiley Online Library for rules of use; OA articles are governed by the applicable Creative Commons Licenseque and Conditions (https://onlinelibrary.wiley.com/terms-and-conditions) on Wiley Online Library for rules of use; OA articles are governed by the applicable Creative Commons Licenseque and Conditions (https://onlinelibrary.wiley.com/terms-and-conditions) on Wiley Online Library for rules of use; OA articles are governed by the applicable Creative Commons Licenseque and Conditions (https://onlinelibrary.wiley.com/terms-and-conditions) on Wiley Online Library for rules of use; OA articles are governed by the applicable Creative Commons Licenseque and Conditions (https://onlinelibrary.wiley.com/terms-and-conditions) on Wiley Online Library for rules of use; OA articles are governed by the applicable Creative Commons Licenseque and Conditions (https://onlinelibrary.wiley.com/terms-and-conditions) on Wiley Online Library for rules of use; OA articles are governed by the applicable Creative Commons Licenseque and Conditions (https://onlinelibrary.wiley.com/terms-and-conditions) on Wiley Online Library for rules of use; OA articles are governed by the applicable Creative Commons (https://onlinelibrary.wiley.com/terms-and-conditions) on Wiley Online Library for rules of use of the articles are governed by the applicable Creative Commons (https://onlinelibrary.wiley.com/terms-and-conditions) on Wiley Online Library for rules of use of the articles are governed by the applicable Creative Commons (https://onlinelibrary.wiley.com/terms-and-conditions) on Wiley Online Library for rules of use of the articles are governed by the applicable Creative Commons (https://onlinelibrary.wiley.com/terms-and-conditions) on Wiley Online Library for rules of use of the articles are governed by the articles are governed

- 26. Perucca E, French JA, Aljandeel G, Balestrini S, Braga P, Burneo JG, et al. Which terms should be used to describe medications used in the treatment of seizure disorders? An ILAE position paper. Epilepsia. 2024;65(3):533-41.
- 27. Nasa P, Jain R, Juneja D. Delphi methodology in healthcare research: how to decide its appropriateness. World J Methodol. 2021;11(4):116-29.
- 28. Niederberger M, Spranger J. Delphi technique in health sciences: a map. Front Public Health. 2020;8:457.
- 29. Lublin FD, Reingold SC. Defining the clinical course of multiple sclerosis: results of an international survey. National Multiple Sclerosis Society (USA) Advisory Committee on Clinical Trials of New Agents in Multiple Sclerosis. Neurology. 1996;46(4):907-11.
- 30. Albanese A, Bhatia K, Bressman SB, DeLong MR, Fahn S, Fung VSC, et al. Phenomenology and classification of dystonia: a consensus update. Mov Disord. 2013;28(7):863-73.
- 31. Shneker BF, Elliott JO. Primary care and emergency physician attitudes and beliefs related to patients with psychogenic nonepileptic spells. Epilepsy Behav. 2008;13(1):243-7.
- 32. Plug L, Sharrack B, Reuber M. Seizure, fit or attack? The use of diagnostic labels by patients with epileptic or non-epileptic seizures. Appl Linguis. 2010;31(1):94-114.
- 33. Mayor R, Smith PE, Reuber M. Management of patients with nonepileptic attack disorder in the United Kingdom: a survey of health care professionals. Epilepsy Behav. 2011;21(4):402-6.
- 34. LaFrance WC, de Marinis AJ, Webb AF, Machan JT, Rusch MD, Kanner AM. Comparing standard medical care for nonepileptic seizures in Chile and the United States. Epilepsy Behav. 2012;25(2):224-9.
- 35. Morgan LA, Dvorchik I, Williams KL, Jarrar RG, Buchhalter JR. Parental ranking of terms describing nonepileptic events. Pediatr Neurol. 2013;48(5):378-82.
- 36. Wichaidit BT, Østergaard JR, Rask CU. Diagnostic practice of psychogenic nonepileptic seizures (PNES) in the pediatric setting. Epilepsia. 2015;56(1):58-65.
- 37. Karterud HN, Risør MB, Haavet OR. The impact of conveying the diagnosis when using a biopsychosocial approach: a qualitative study among adolescents and young adults with NES (non-epileptic seizures). Seizure. 2015;24:107-13.
- Monzoni CM, Reuber M. Psychogenic non-epileptic seizures: how doctors use medical labels when they communicate and explain the diagnosis. The Palgrave handbook of adult mental health: Discourse and conversation studies. London: Palgrave Macmillan UK; 2016. p. 209-26.
- 39. Aatti Y, Schwan R, Maillard L, McGonigal A, Micoulaud-Franchi JA, de Toffol B, et al. A cross-sectional survey on French psychiatrists' knowledge and perceptions of psychogenic nonepileptic seizures. Epilepsy Behav. 2016;60:21-6.
- 40. McWilliams A, Reilly C, Heyman I. Non-epileptic seizures in children: views and approaches at a UK child and adolescent psychiatry conference. Seizure. 2017;53:23-5.
- 41. Yogarajah M, Child R, Agrawal N, Cope S, Edwards M, Mula M. Functional seizures: an evaluation of the attitudes of general practitioners local to a tertiary neuroscience service in London. Epilepsia Open. 2019;4(1):54-62.
- 42. Loewenberger A, Cope SR, Poole N, Agrawal N. An investigation into the preferred terminology for functional seizures. Epilepsy Behav. 2020;111:107183.

- 43. Dastgheib SA, Nazeri M, Asadi-Pooya AA. A survey of physicians' opinions about functional seizures (psychogenic nonepileptic seizures). Epilepsy Behav. 2020;108:107090.
- 44. Loewenberger A, Davies K, Agrawal N, Poole N, Cope SR. What do patients prefer their functional seizures to be called, and what are their experiences of diagnosis?—a mixed methods investigation. Epilepsy Behav. 2021;117:107817.
- 45. Samuels T, Pretorius C. Healthcare providers' perspectives on stigma when working with people with functional seizures. Seizure. 2023;112:121-7.
- María Marta AP, Mercedes S, Alejandra Inés L, Cristina T, Camila W, Luciana DA, et al. Cultural issues: perspectives and experiences of patients with dissociative seizures in Argentina. Seizure. 2023;106:101-9.
- 47. Schmutz M. Dissociative seizures—a critical review and perspective. Epilepsy Behav. 2013;29(3):449-56.
- Brigo F, Igwe SC, Ausserer H, Nardone R, Tezzon F, Bongiovanni LG, et al. Terminology of psychogenic nonepileptic seizures. Epilepsia. 2015;56(3):e21-e25.
- 49. Ding JM, Kanaan RAA. Conversion disorder: a systematic review of current terminology. Gen Hosp Psychiatry. 2017;45:51-5.
- 50. Huff JS, Murr N. Psychogenic nonepileptic seizures. 2022 May 8. StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2023.
- 51. Slavney PR. In defense of Pseudoseizure. Gen Hosp Psychiatry. 1994;16(4):243-5.
- 52. Scull DA. Pseudoseizures or non-epileptic seizures (NES); 15 synonyms. J Neurol Neurosurg Psychiatry. 1997;62(2):200.
- 53. LaFrance WC. Psychogenic nonepileptic "seizures" or "attacks"? It's not just semantics: seizures. Neurology. 2010;75(1):87-8.
- Benbadis SR. Psychogenic nonepileptic "seizures" or "attacks"? It's not just semantics: attacks. Neurology. 2010;75(1):84-6.
- Karam C. Psychogenic nonepileptic "seizures" or "attacks"? It's not just semantics: attacks: psychogenic nonepileptic "seizures" or "attacks"? It's not just semantics: seizures. Neurology. 2010;75(23):2135; author reply 2136-2137.
- 56. Sethi NK, Sethi P, Torgovnick J, Arsura E. Psychogenic nonepileptic "seizures" or "attacks"? It's not just semantics: attacks: psychogenic nonepileptic "seizures" or "attacks"? It's not just semantics: seizures. Neurology. 2010;75(23):2135; author reply 2136-2137.
- 57. Cowan RBT. Psychogenic nonepileptic "seizures" or "attacks"? It's not just semantics: attacks: psychogenic nonepileptic "seizures" or "attacks"? It's not just semantics: seizures. Neurology. 2010;75(23):2135-6; author reply 2136-2137.
- Ramos VFML, Ramos ML, Ramos HM. Psychogenic nonepileptic "seizures" or "attacks"? It's not just semantics: attacks: psychogenic nonepileptic "seizures" or "attacks"? It's not just semantics: seizures. Neurology. 2010;75(23):2135-6; author reply 2136-2137.
- Landau WM. Psychogenic nonepileptic "seizures" or "attacks"?: It's not just semantics: attacks. Neurology. 2010;75(23).
- 60. O'Hanlon S, Liston R, Delanty N. Psychogenic nonepileptic seizures: time to abandon the term Pseudoseizures. Arch Neurol. 2012;69(10):1349-50.
- 61. Sethi NK. Psychogenic nonepileptic seizures: the name matters. JAMA Neurol. 2013;70(4):528-9.
- 62. Reilly C, McWilliams A, Heyman I. What's in a name? "Psychogenic" non-epileptic events in children and adolescents. Dev Med Child Neurol. 2015;57(1):100-1.

### Epilepsia -

- 63. Tannemaat MR, van Dijk JG. The terminology of psychogenic nonepileptic seizures: a historical perspective. Epilepsia. 2015;56(6):978–9.
- 64. Brigo F, Tinazzi M, Trinka E. In response: terminology of psychogenic nonepileptic seizures—a babel of different names? Epilepsia. 2015;56(7):1179–80.
- 65. Brigo F, Tinazzi M, Trinka E. In response: terminology of PNES over time—the terms they are a-changin'. Epilepsia. 2015;56(6):979–80.
- 66. Kerr WT, Stern JM. We need a functioning name for PNES: consider dissociative seizures. Epilepsy Behav. 2020;105:107002.
- 67. Benbadis SR. Functional seizures? "So I still have seizures, right?". Epilepsy Behav. 2020;109:107082.
- Beghi M, Peroni F, Cornaggia CM. Reply to: we need a functioning name for PNES: considering dissociative seizures. Epilepsy Behav. 2020;109:107084.
- Asadi-Pooya AA. Re: we need a functioning name for PNES. Epilepsy Behav. 2020;109:107087.
- Cerasa A, Gambardella A, Labate A. Terminology for psychogenic nonepileptic seizures: the contribution of neuroimaging. Epilepsy Behav. 2020;109:107063.
- Roenneberg C, Sattel H, Schaefert R, Henningsen P, Hausteiner-Wiehle C. Functional somatic symptoms. Dtsch Arztebl Int. 2019;116(33–34):553–60.
- Kozlowska K, Scher S, Helgeland H. Functional somatic symptoms in children and adolescents: a stress-system approach to assessment and treatment. London: Palgrave Macmillan; 2020.
- 73. Stone J, Carson A, Hallett M. Explanation as treatment for functional neurologic disorders. Handb Clin Neurol. 2016;139:543–53.
- Stone J, Carson A. Functional neurologic disorders. Continuum (Minneap Minn). 2015;21(3 Behavioral Neurology and Neuropsychiatry):818–37.
- 75. Tinazzi M, Morgante F, Marcuzzo E, Erro R, Barone P, Ceravolo R, et al. Clinical correlates of functional motor disorders: an Italian multicenter study. Mov Disord Clin Pract. 2020;7(8):920–9.
- 76. Gilmour GS, Nielsen G, Teodoro T, Yogarajah M, Coebergh JA, Dilley MD, et al. Management of functional neurological disorder. J Neurol. 2020;267(7):2164–72.
- 77. Adams C, Anderson J, Madva EN, LaFrance WC, Perez DL. You've made the diagnosis of functional neurological disorder: now what? Pract Neurol. 2018;18(4):323–30.
- de Schipper LJ, Vermeulen M, Eeckhout AM, Foncke EMJ. Diagnosis and management of functional neurological symptoms: the Dutch experience. Clin Neurol Neurosurg. 2014;122:106–12.
- Bègue I, Adams C, Stone J, Perez DL. Structural alterations in functional neurological disorder and related conditions: a software and hardware problem? Neuroimage Clin. 2019;22:101798.
- 80. Ertan D, Aybek S, Curt LaFrance W Jr, Kanemoto K, Tarrada A, Maillard L, et al. Functional (psychogenic non-epileptic/dissociative) seizures: why and how? J Neurol Neurosurg Psychiatry. 2022;93(2):144–57.
- 81. Perez DL, Nicholson TR, Asadi-Pooya AA, Bègue I, Butler M, Carson AJ, et al. Neuroimaging in functional neurological disorder: state of the field and research agenda. NeuroImage Clin. 2021;30:102623.
- 82. Mcsweeney M, Reuber M, Levita L. Neuroimaging studies in patients with psychogenic non-epileptic seizures: a systematic meta-review. Neuroimage Clin. 2017;16:210–21.

- 83. Münte TF, Altenmüller E, Jäncke L. The musician's brain as a model of neuroplasticity. Nat Rev Neurosci. 2002;3(6):473–8.
- 84. Amiri S, Arbabi M, Rahimi M, Badragheh F, Zibadi HA, Asadi-Pooya AA, et al. Effective connectivity between emotional and motor brain regions in people with psychogenic nonepileptic seizures (PNES). Epilepsy Behav. 2021;122:108085.
- 85. Foroughi AA, Nazeri M, Asadi-Pooya AA. Brain connectivity abnormalities in patients with functional (psychogenic nonepileptic) seizures: a systematic review. Seizure. 2020;81:269–75.
- Szaflarski JP, LaFrance WC. Psychogenic nonepileptic seizures (PNES) as a network disorder – evidence from neuroimaging of functional (psychogenic) neurological disorders. Epilepsy Curr. 2018;18(4):211–6.
- 87. Subramanyam AA, Somaiya M, Shankar S, Nasirabadi M, Shah HR, Paul I, et al. Psychological interventions for dissociative disorders. Indian J Psychiatry. 2020;62(Suppl 2):S280–S289.
- 88. Stone J. Dissociation: what is it and why is it important? Pract Neurol. 2006;6(5):308–13.
- 89. Spitzer C, Barnow S, Freyberger HJ, Grabe HJ. Recent developments in the theory of dissociation. World Psychiatry. 2006;5(2):82–6.
- Renard SB, Huntjens RJC, Lysaker PH, Moskowitz A, Aleman A, Pijnenborg GHM. Unique and overlapping symptoms in schizophrenia Spectrum and dissociative disorders in relation to models of psychopathology: a systematic review. Schizophr Bull. 2017;43(1):108–21.
- Brown RJ. Dissociation and functional neurologic disorders. Handb Clin Neurol. 2016;139:85–94.
- 92. Bhattacharjee D, Chakraborty A. Brief online psychotherapy for psychogenic non-epileptic seizures using the psychoeducation-motivational interviewing- self appraisal- grounding (PMSG) model: a multiple baseline case series study. Psych Res Case Rep. 2022;1(2):100080.
- 93. Kemp S, Graham CD, Chan R, Kitchingman H, Vickerman K, Reuber M. The frequency and management of seizures during psychological treatment among patients with psychogenic none-pileptic seizures and epilepsy. Epilepsia. 2018;59(4):844–53.
- 94. van Dijke A, Ford JD, Frank LE, van der Hart O. Association of childhood complex trauma and dissociation with complex post-traumatic stress disorder symptoms in adulthood. J Trauma Dissociation. 2015;16(4):428–41.
- 95. Stone J, Carson AJ. The unbearable lightheadedness of seizing: wilful submission to dissociative (non-epileptic) seizures. J Neurol Neurosurg Psychiatry. 2013;84(7):822–4.
- 96. Vuilleumier P. Brain circuits implicated in psychogenic paralysis in conversion disorders and hypnosis. Neurophysiol Clin. 2014;44(4):323–37.
- 97. Cardeña E. The domain of dissociation. Dissociation: clinical and theoretical perspectives. New York, NY: Guilford Press; 1994. p. 15–31.
- 98. Hingray C, Ertan D, Reuber M, Lother AS, Chrusciel J, Tarrada A, et al. Heterogeneity of patients with functional/dissociative seizures: three multidimensional profiles. Epilepsia. 2022;63(6):1500–15.
- Gargiulo ÁJM, Colombini A, Trovato A, Gargiulo API, D'Alessio
   L. Functional/dissociative seizures: review of its relationship
   with trauma, dissociation and the neurobiological underpinnings. Psychiatry Res Commun. 2022;2(4):100071.
- 100. Patel P, Moshé SL. The evolution of the concepts of seizures and epilepsy: What's in a name? Epilepsia Open. 2020;5(1):22–35.

-Epilepsia<sup>\* | 21</sup>

- 101. Leibetseder A, Eisermann M, LaFrance WC Jr, Nobili L, von Oertzen TJ. How to distinguish seizures from non-epileptic manifestations. Epileptic Disord. 2020;22(6):716–38.
- 102. Stone J, Binzer M, Sharpe M. Illness beliefs and locus of control: a comparison of patients with pseudoseizures and epilepsy. J Psychosom Res. 2004;57(6):541–7.
- 103. Hingray C, Ertan D, El-Hage W, Maillard L, Vignal JP, Tarrada A. Working toward the ideal situation: a pragmatic Epi-Psy approach for the diagnosis and treatment of psychogenic nonepileptic seizures. Epilepsy Behav. 2021;120:108000.
- 104. Hubsch C, Baumann C, Hingray C, Gospodaru N, Vignal JP, Vespignani H, et al. Clinical classification of psychogenic non-epileptic seizures based on video-EEG analysis and automatic clustering. J Neurol Neurosurg Psychiatry. 2011;82(9):955–60.
- 105. Reuber M, Brown RJ. Understanding psychogenic nonepileptic seizures-phenomenology, semiology and the integrative cognitive model. Seizure. 2017;44:199–205.
- 106. Fisher RS, van Emde Boas W, Blume W, Elger C, Genton P, Lee P, et al. Epileptic seizures and epilepsy: definitions proposed by the International League Against Epilepsy (ILAE) and the International Bureau for Epilepsy (IBE). Epilepsia. 2005;46(4):470–2.
- 107. Cambridge Dictionary [Internet]. Seizure. [cited 2024 Jan 4]. Available from: https://dictionary.cambridge.org/dictionary/english/seizure
- 108. Delanty N, Vaughan CJ, French JA. Medical causes of seizures. Lancet. 1998;352(9125):383–90.

- 109. Kozlowska K. A paediatric point of view: what to say and what not to say when talking to children with non-epileptic seizures. American Epilepsy Society's Functional Neurological Disorders Webinar Series Boston, USA. 2020; Dec 3.
- 110. Maggio J, Adams C, Perez DL. Creating a "brain-mind-body interface disorders" diagnostic category across specialties. J Neuropsychiatry Clin Neurosci. 2024;36(2):172–4. https://doi.org/10.1176/appi.neuropsych.20230071

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