Research Square

Preprints are preliminary reports that have not undergone peer review.
They should not be considered conclusive, used to inform clinical practice,
or referenced by the media as validated information.

Functional neurological disorder (FND) in Primary Care: A Survey of General Practitioners' Knowledge, Attitudes and Practices

Jack Tallentire
Lancaster University
Borhan Masaarane
Lancaster University
Partha Ganguli
Royal Preston Hospital
Abhijit Das
abhijit.das@lthtr.nhs.uk

University of Central Lancashire

Research Article

Keywords:

Posted Date: February 24th, 2026

DOI: https://doi.org/10.21203/rs.3.rs-8614005/v1

License: This work is licensed under a Creative Commons Attribution 4.0 International License.
Read Full License

Additional Declarations: No competing interests reported.

Abstract

Background

Functional neurological disorder (FND) is a common but complex neurological condition that presents an increasing burden in general practice. Recent developments including the inclusion of FND in the NICE guideline NG252 and NHS England's minimum service requirements highlight the need for improved primary care recognition and referral pathways.

Aim

To explore the knowledge, attitudes, and clinical practice of local primary care practitioners regarding FND.

Design and setting:

A cross-sectional survey of 34 primary care clinicians across Lancashire and South Cumbria.

Method

A 16-item online survey incorporating Likert scales, descriptive multiple-choice questions, and free-text responses was disseminated via the integrated care board network. Descriptive statistics were used alongside Spearman’s rank-order correlation to assess associations between training and confidence. Free-text responses were reviewed to identify common themes.

Results

While most respondents could identify FND, only 8.8% reported confidence in recognising it in primary care, and the same proportion felt adequately trained. Perceived adequacy of training strongly correlated with confidence in recognising ($\rho = 0.559$) and explaining ($\rho = 0.547$) FND. Most clinicians reported a rising number of FND presentations, with key challenges including diagnostic uncertainty and limited access to multidisciplinary support. Two-thirds supported dedicated FND services, and over half expressed willingness to undertake further training.

Conclusion

Primary care clinicians lack sufficient confidence and training to effectively support patients with FND, despite increasing demand. This study highlights the need for structured, primary-care-focused training

and service development to improve outcomes for people with FND and to ensure practice aligns with emerging national guidance and standards.

Introduction

Functional neurological disorder (FND) is defined as “changes in how brain networks work, rather than changes in the structure of the brain itself”.[1] In the current Diagnostic and Statistical Manual of Mental Disorders (DSM)-V-TR (2022), it is termed ‘Functional Neurological Symptom Disorder’ (‘Conversion Disorder’), though its conceptual history dates back to the DSM-I (1952), where it was called ‘conversion reaction’ and later labelled as ‘hysterical neurosis’ and ‘conversion disorder’.[2, 3]

Various terms such as ‘non-epileptic attack disorder’, ‘dissociative disorder’, and ‘functional movement disorder’ are used interchangeably with FND; for this study, we adopt the term FND. These diverse labels reflect ongoing uncertainty and limited understanding of the condition, highlighting the need for further research to better understand its impact.

FND has gained increasing relevance recently, with evidence suggesting a rise in adolescent presentations since the COVID-19 pandemic – likely linked to pandemic-related stress and uncertainty, and the lasting effects of lockdown measures.[4]

Although FND is typically diagnosed and managed in secondary care, primary care practitioners play a crucial role in the patient journey. A study in Northern Italy suggested that when patients receive an accurate and understandable explanation of their diagnosis from their GP early on, their prognosis may improve significantly[5].

In August 2025, NHS England issued minimum service requirements for specialised neurology services, including functional neurological disorder (FND), aiming to improve and streamline management by reducing emergency admissions and long waiting times for specialist appointments. In addition, the condition is now included in the National Institute for Health and Care Excellence (NICE) guideline NG252, meaning awareness and early identification in primary care need to improve accordingly.[6,7]

This study aims to explore the knowledge, attitudes, and practices of general practitioners and other primary care providers within primary care settings, in Lancashire and South Cumbria, regarding FND.

Method

Data Collection:

An initial literature review was conducted (supplementary material, Annexure 1) to identify previous studies evaluating primary care practitioners’ perceptions of FND. Eight relevant studies were identified.[5, 8–14] Findings from these studies, combined with the clinical experience of the authors and input from expert reviewers, informed the design of a 16-item survey (supplementary material, Annexure 2). The

survey covered four areas: (1) demographic information, (2) knowledge, (3) attitudes, (4) clinical practice related to FND.

The survey included a variety of question formats: 5-point Likert scale items (*'strongly agree'* to *'strongly disagree'*); multi-select questions based on descriptive statements derived from the literature, and open-ended free-text responses. Content validity was enhanced by review from a consultant neurologist with expertise in FND.

Distribution was facilitated by the Lancashire and South Cumbria Integrated Care Board, with the survey circulated via the GP intranet and weekly email bulletins. Additional dissemination was supported by the Local Medical Consortium and Primary Care Networks, to maximise reach.

In total, 35 complete responses were received. One response from a non-clinical staff member was excluded to ensure analytic homogeneity. This left 34 responses from clinical staff for analysis.

Statistical Analysis:

Survey responses were exported from Google Forms document into Microsoft Excel (version 16.100.1) for initial processing. Data were presented in tables, with descriptive statistics used to summarise responses across the knowledge, attitudes, and practice sections. Key findings were visualised using graphical formats.

The dataset was subsequently imported into JASP (version 0.95.1) for statistical analysis. Questions formatted using a Likert scale rating system were coded from 5 (*'strongly agree'*) to 1 (*'strongly disagree'*). Responses marked as *'not sure'* were excluded from statistical analyses to maintain consistency in ordinal scale evaluation.

Given that these survey responses were measured on an ordinal Likert scale, and initial exploration indicated non-normal distributions, Spearman's rank-order correlation was used as a non-parametric test to assess relationships between selected variables. Two-tailed tests were employed, with significance pre-determined at $p < 0.05$.

For interpretive clarity in the results section, Likert scale responses were also grouped into broader categories: *'Agree'* and *'Strongly agree'* were combined to indicate overall agreement; *'Agree'* and *'Strongly agree'* were similarly collapsed to indicate overall disagreement.

When approaching data analysis, the original intention was to use the Mann-Whitney U test to compare Likert responses between GPs and non-GP clinicians. However, due to the small number of non-GP respondents (n = 6), and the exclusion of 4 respondents who answered *'not sure'* on key items, the resulting subgroup sample was insufficient to meet test assumptions. As such, comparative analysis was not performed, and these data are presented descriptively.

Results

82.4% (n = 28) of respondents were either qualified GPs (n = 26) or GP trainees (n = 2), with the remainder of respondents encompassing physician associates, nurses, advanced clinical practitioners, and healthcare assistants. The majority of respondents (35.3%, n = 12) were experienced practitioners, having been practised in primary care for over 15 years. Of the practitioners in this category, 91.7% (n = 11) were fully qualified GPs.

Section 1: Knowledge

The most frequently selected description of FND was '*a diagnosis made by exclusion of other causes for neurological symptoms'* (55.9%, n = 19), followed by *'neurological symptoms without a structural cause due to problems with the functioning of the brain network'* (50.0%, n = 17). Only 17.6% (n = 6) recognised it as *'a treatable condition requiring a multidisciplinary team approach'* and one respondent considered it *'a form of malingering'*.

The most identified presentations were *'weakness / paralysis'* (76.5%, n = 26), *'fainting / dissociative episodes'* (73.5%, n = 25), *'seizures / convulsions'* (70.6%, n = 24), *'movement disorders'* (61.8%, n = 21), and *'sensory changes'* (61.8%, n = 21). Other identified presentations included *'cognitive impairment'*, *vision changes'*, *'gait abnormalities'*, *'bladder disorders'*, and *'persistent dizziness'*. One respondent (2.9%) also selected *'speech deficit'*.

For both qualitative questions in this section, 14.7% (n = 5) indicated insufficient knowledge to respond.

Overall agreement that respondents had received adequate education about FND, as a part of their clinical training, was 8.8% (n = 3), whilst over 60% either disagreed or strongly disagreed.

Confidence in *recognising* FND patients was similarly low. Just 8.8% (n = 3) of clinicians expressed confidence in recognising patients presenting with FND in a primary care setting (in terms of overall agreement with the statement), with overall disagreement at 61.8% (n = 21). Confidence in *explaining* the diagnosis of FND to a patient was higher, with overall agreement at 26.5% (n = 9). Only 11.8% (n = 4) selected *'strongly disagree'*.

Spearman's analyses demonstrated statistically significant moderate positive correlations between self-reported training adequacy, and both confidence in *recognising* ($\rho = 0.559$, n = 26, $p = 0.003$) as well as *explaining* ($\rho = 0.547$, n = 26, $p = 0.004$) FND in primary care. However, there was no association with years of experience ($\rho = -0.289$, n = 27, $p = 0.144$; $\rho = 0.140$, n = 28, $p = 0.476$, respectively). Complete results from this section of the survey are reported in Table 1.

Table 1: KNOWLEDGE	
Q3. In your opinion, which of the following statements most appropriately describes the concept of FND? **(select all that apply)**	**% respondents** (n)
A diagnosis made by exclusion of other causes for neurological symptoms	**55.9%** (19)
Neurological symptoms without a structural cause due to problems with the functioning of the brain network	**50%** (17)
A psychological condition manifesting as neurological symptoms	**44.1%** (15)
A condition influenced by biological, psychological, and social factors	**38.2%** (13)
Non-specific, generalised physical symptoms without an identified organic cause	**38.2%** (13)
Episodes resembling epileptic seizures but not associated with electrical brain activity	**35.3%** (12)
A treatable condition requiring a multidisciplinary approach	**17.6%** (6)
Stress-induced episodes	**8.8%** (3)
A name used when neurologists cannot make the diagnosis	**5.9%** (2)
A psychological condition caused solely by stress	**5.9%** (2)
Symptoms that are voluntary and under the patient's control	**5.9%** (2)
Not a legitimate medical condition	**2.9%** (1)
A form of malingering (faking symptoms for personal gain)	**2.9%** (1)
Not sure / Not enough knowledge about FND	**14.7%** (5)
Q4. How do you believe FND can present? (select all that apply)	**% respondents** (n)
Weakness / Paralysis	**76.5%** (26)
Fainting / Dissociative episodes	**73.5%** (25)
Seizures / Convulsions	**70.6%** (24)
Movement disorders	**61.8%** (21)
Sensory changes	**61.8%** (21)
Cognitive impairment	**58.8%** (20)
Vision changes	**55.9%** (19)
Gait abnormalities	**47.1%** (16)
Bladder disorders	**47.1%** (16)

Table 1: KNOWLEDGE	
Persistent dizziness	**44.1%** (15)
Speech deficit	**2.9%** (1)
Not sure / Not enough knowledge about FND	**14.7%** (5)
Q5. To what extent do you feel you have received adequate education about FND as part of your training?	**% respondents** (n)
Strongly disagree	**35.3%** (12)
Disagree	**26.5%** (9)
Neutral	**8.8%** (3)
Agree	**5.9%** (2)
Strongly agree	**2.9%** (1)
Not sure / Not enough knowledge about FND	**20.6%** (7)
Q6. To what extent do you agree that you feel confident in recognising patients with FND, in primary care?	**% respondents** (n)
Strongly disagree	**20.6%** (7)
Disagree	**41.2%** (14)
Neutral	**8.8%** (3)
Agree	**5.9%** (2)
Strongly agree	**2.9%** (1)
Not sure / Not enough knowledge about FND	**20.6%** (7)
Q7. To what extent do you agree that you feel confident in explaining a diagnosis of FND to a patient, in primary care?	**% respondents** (n)
Strongly disagree	**11.8%** (4)
Disagree	**20.6%** (7)
Neutral	**23.5%** (8)
Agree	**23.5%** (8)
Strongly agree	**2.9%** (1)
Not sure / Not enough knowledge about FND	**17.6%** (6)

Section 2: Attitudes

Respondents were asked to what extent they agreed with a series of statements pertaining to FND and patients with the diagnosis. There was overall disagreement that *'people with FND are in control of their symptoms'* (52.9%, n = 18) or that *'symptoms are all in their mind'* (44.1%, n = 15). In response to both the following statements: *'in my experience these patients often don't want to get better'* and *'patients with FND are manipulative/attention-seeking'*, 55.9% (n = 19) selected either *'disagree'* or *'strongly disagree'*, with only a minority agreeing. However, overall agreement that *'FND is a genuine condition arising from abnormal brain function where symptoms are not intentionally produced'* was 38.2% (n = 13), with nearly a third uncertain.

Regarding management roles, 58.8% (n = 20) saw GPs as primarily *'recognising FND and referring patients to a specialist'*; 44.1% (n = 15) supported *'coordinating care as part of an MDT approach'* and *'providing patient education and an explanation of the diagnosis'*; only 8.8% (n = 3) endorsed *'diagnosing and personally following up patients'*. Neurologists and psychologists were each selected by 55.9% (n = 19) as responsible for management, followed by GPs (52.9%, n = 18), physiotherapists (41.2%, n = 14), and psychiatrists (35.3%, n = 12). Complete results from this section of the survey are reported in Table 2.

Table 2: ATTITUDES	
Q8a. 'People with FND are in control of their symptoms.'	**% respondents** (n)
Strongly disagree	**14.7%** (5)
Disagree	**38.2%** (13)
Neutral	**17.6%** (6)
Agree	**5.9%** (2)
Strongly agree	**0%** (0)
Not sure / Not enough knowledge about FND	**23.5%** (8)
Q8b. 'FND patients' symptoms are all in their mind.'	**% respondents** (n)
Strongly disagree	**11.7%** (4)
Disagree	**32.4%** (11)
Neutral	**20.6%** (7)
Agree	**17.6%** (6)
Strongly agree	**0%** (0)
Not sure / Not enough knowledge about FND	**17.6%** (6)
Q8c. 'In my experience, these patients often don't want to get better.'	**% respondents** (n)
Strongly disagree	**8.8%** (3)
Disagree	**47.1%** (16)
Neutral	**14.7%** (5)
Agree	**8.8%** (3)
Strongly agree	**0%** (0)
Not sure / Not enough knowledge about FND	**20.6%** (7)
Q8d. 'People with FND are manipulative/attention-seeking.'	**% respondents** (n)
Strongly disagree	**11.8%** (4)
Disagree	**44.1%** (15)
Neutral	**11.8%** (4)
Agree	**8.8%** (3)

Table 2: ATTITUDES	
Strongly agree	**2.9%** (1)
Not sure / Not enough knowledge about FND	**20.6%** (7)
Q8e. 'FND is a genuine condition arising from abnormal brain function, where symptoms are not intentionally produced.'	**% respondents** (n)
Strongly disagree	**2.9%** (1)
Disagree	**8.8%** (3)
Neutral	**20.6%** (7)
Agree	**26.5%** (9)
Strongly agree	**11.8%** (4)
Not sure / Not enough knowledge about FND	**29.4%** (10)
Q9. In your opinion, what is the role of a general practitioner in managing patients with FND? (Select all that apply)	**% respondents** (n)
Recognising FND and referring patients to a specialist	**58.8%** (20)
Co-ordinating care as part of an MDT approach	**44.1%** (15)
Providing patient education and an explanation of the diagnosis	**44.1%** (15)
Recommending the most appropriate management strategies for the condition	**29.4%** (10)
Diagnosing and personally following up patients	**8.8%** (3)
Not sure / Not enough knowledge about FND	**29.4%** (10)
Q10. In your opinion, which of the following specialties should be responsible for managing patients with FND? *(Select all that apply)*	**% respondents** (n)
Neurologist	**55.9%** (19)
Psychologist	**55.9%** (19)
General practitioner	**52.9%** (18)
Physiotherapist	**41.2%** (14)
Psychiatrist	**35.3%** (12)
Not sure / Not enough knowledge about FND	**26.5%** (9)

Section 3: Practice

Most clinicians reported seeing patients with FND monthly (32.4%, n = 11), with 20.6% (n = 7) weekly; none saw them daily. Over half 55.9% (n = 19) were in overall agreement that the number of patients with

FND is increasing.

No significant correlation was found between confidence in recognising FND and patient numbers or trends.

The main practical challenge faced by respondents was *'lack of MDT/specialist support'* (61.8%, n = 21), with *'difficulty diagnosing the condition'* the next most identified barrier (58.8%, n = 20). Other commonly selected items included *'time constraints for consultations'*, *'lack of training/knowledge'*, *'arranging multiple/timely referrals'*, *'lack of national guidelines'*, and *'lack of patient education materials.* Thematically related, *'patient scepticism/non-compliance'* (38.2%, n = 13) and *'stigma associated with the diagnosis'* (26.5%, n = 9) were also commonly selected.

Consistent with these challenges, the most favoured intervention was *'a trust-wide dedicated FND service with an agreed care plan'* (67.6%, n = 23). One respondent used the free-text response to specifically reference *'Long COVID clinics'* as a useful package of care implemented at their practice. Free text responses to a subsequent question suggested clearer diagnostic referral pathways, patient information resources, and clinician training and education opportunities. Over half (55.9%, n = 19) expressed willingness to engage in further training to extend their role in community-based FND care. Complete results from this section of the survey are reported in Table 3.

Table 3: PRACTICE	
Q11. How frequently do you encounter patients in primary care, with symptoms suggestive of FND?	**% respondents** (n)
Daily	**0%** (0)
Weekly	**20.6%** (7)
Monthly	**32.4%** (11)
Rarely	**29.4%** (10)
Never	**5.9%** (2.9)
Not sure / Not enough knowledge about FND	**11.8%** (4)
Q12. To what extent do you believe the numbers of FND patients you see are increasing over the years?	**% respondents** (n)
Strongly disagree	**0%** (0)
Disagree	**5.9%** (2)
Neutral	**17.6%** (6)
Agree	**52.9%** (18)
Strongly agree	**2.9%** (1)
Not sure / Not enough knowledge about FND	**20.6%** (7)
Q13. What challenges do you face when managing patients with FND, in primary care? *(Select all that apply)*	**% respondents** (n)
Lack of MDT/specialist support	**61.8%** (21)
Difficulty diagnosing the condition	**58.8%** (20)
Time constraints for consultations	**47.1%** (16)
Lack of training/knowledge	**44.1%** (15)
Arranging multiple and timely referrals	**44.1%** (15)
Patient scepticism/non-compliance	**38.2%** (13)
Lack of national guidelines	**32.4%** (11)
Lack of patient education materials	**29.4%** (10)
Stigma associated with the diagnosis	**26.5%** (9)
Not sure / Not enough knowledge about FND	**26.5%** (9)

Table 3: PRACTICE	
Q14. Which of the following do you feel would be helpful for you to manage this patient group in the community? *(Select all that apply)*	**% respondents** (n)
A trust-wide dedicated FND service with an agreed care plan	**67.6%** (23)
Access to specialised Psychology support	**58.8%** (20)
Access to community rehabilitation	**50%** (17)
Access to Psychiatry input	**35.3%** (12)
Access to trauma therapy/EMDR	**32.4%** (11)
Fatigue management	**32.4%** (11)
Pain management	**23.5%** (8)
Access to hypnotherapy	**20.6%** (7)
OTHER: Long COVID clinics were good to bundle all this into, we don't have a CFS service either.	**2.9%** (1)
Not sure / Not enough knowledge about FND	**20.6%** (7)
Q15. To what extent would you be interested in receiving further training to develop an extended role in the community as part of the FND service?	**% respondents** (n)
Very unlikely	**9.4%** (3)
Somewhat unlikely	**9.4%** (3)
Neutral	**15.6%** (5)
Somewhat likely	**40.6%** (13)
Very likely	**18.8%** (6)
Not sure / Not enough knowledge about FND	**6.3%** (2)
Q16. What additional support/resources would help you better manage patients with FND in primary care?	
Self help tools - it's not practical for a GP to manage this - we need to have quick signposting options.	General knowledge and training.
GP training would help but I don't want to be part of the service.	Learning module
Psychological support, leaflets.	Clinical learning session from the ICB.
Clear diagnostic pathways - funding to do the	A service that we can refer to.

Table 3: PRACTICE	
work involved.	
Therapy support - with a specialist service to provide education and support to the patient.	Better support following diagnosis and not just hand back to us in general practice.
Training and education opportunities, a local FND service.	Training.
Not my primary role but training/education welcome.	

Discussion

With its diverse range of presentations and the historically limited consensus on optimal management, functional neurological disorder (FND) places a significant burden on both patients and the primary care clinicians involved in their care. Symptoms that are 'unexplained by organic disease' account for up to a third of outpatient neurology presentations, making FND a substantial contributor to resource-intensive demand within the NHS.[15–17] The recent inclusion of FND within the NICE guideline NG252, alongside national service requirements introduced by NHS England in 2025, underscores the growing recognition of the condition and the need for improved pathways and earlier intervention. As awareness and structured guidance continue to develop, strengthening primary care understanding and confidence in managing FND has become increasingly important. This study aimed to explore the knowledge, attitudes, and clinical practices of primary care clinicians in Lancashire regarding FND, with the objective of informing a local quality-improvement initiative to enhance clinician understanding and streamline referral pathways and management.

Findings suggest that despite moderate familiarity with common presentations of FND, clinicians reported low levels of confidence in managing the condition. This gap in clinical confidence is underscored by the finding that fewer than half of respondents recognised 'persistent dizziness' as a potential presentation of FND – despite accounting for over a third of dizziness-related referrals to neurology clinics.[18] Such discrepancies illustrate the disconnect between clinical exposure and diagnostic awareness in primary care. This low self-reported confidence was concordant with only a minority feeling they had received adequate training on FND during their clinical education. Further to this, confidence in recognition and explanation of the diagnosis was significantly associated with perceived adequacy of training – indicating that further education may be a key modifiable factor.

Attitudes towards FND varied, although most respondents rejected outdated or stigmatising views – such as symptoms being illegitimate or intentionally produced. Nevertheless, there was a substantial number of clinicians who felt unsure on the mechanisms underlying FND. This uncertainty is reflected in the many reported challenges around diagnosis and management, providing a fresh perspective on the ongoing complexities of supporting such patients in primary care.

Strengths and Limitations:

A key strength of this study lies in its focus on the local healthcare context, enabling tailored recommendations for quality improvement initiatives. The lack of similar research in the UK setting adds to its value, offering novel insights into how FND is perceived and managed in primary care. The use of a mixed-format survey, informed by existing literature and expert review, facilitated the development of a detailed and relevant tool. This comprehensive methodology allowed for an in-depth exploration of multiple facets of respondents knowledge, attitudes, and clinical practices regarding FND.

The inclusion of free text responses also provided valuable qualitative data, capturing clinicians' personal reflections and suggestions. These comments added a nuance to the quantitative findings and helped to contextualise the challenges faced in everyday practice.

Although it limited the statistical analysis of Likert-scale responses, the inclusion of a *'Not sure / Not enough knowledge in FND'* option encouraged honest reporting. This, alongside the anonymity of the survey, likely helped to mitigate social desirability bias in participants' responses.

However, several limitations of this survey should be acknowledged. The sample size was relatively small, which restricts the generalisability of findings beyond the regional setting. Furthermore, the exact response rate could not be determined due to the broad dissemination channels used and the opportunistic nature of data collection. This raises potential concerns regarding selection bias, particularly given the survey's role in informing a quality improvement project, as respondents may represent a cohort with greater interest or awareness of FND.

Additionally, the cross-sectional survey design captures self-reported data, which may be subject to recall bias. The predominance of GPs in the sample limits insight into the perspectives of other primary care practitioners. This resulted in the exclusion of comparative statistical analysis between subgroups.

Despite these limitations, the study offers valuable local insights and demonstrates statistically significant correlations between training adequacy and clinician confidence, reinforcing the relevance of education-focused interventions to improve FND care in primary settings.

Comparison with Existing Literature:

Comparisons with existing literature reveal similar themes to those identified in this paper. Evidence consistently shows uncertainty surrounding FND among both patients and primary healthcare providers. For example, Carton et al. interviewed patients with FND and found that confusion was the most common reaction to receiving the diagnosis. In the same study, some GPs disagreed with their patients' FND diagnosis and continued prescribing anti-epileptic drugs despite guidance against this. The authors could not determine the exact reasons for this but suggested it may reflect either conflicting evidence for alternative diagnoses or a lack of understanding about FND and its management.[8]

This theme extends internationally – studies from Tunisia and Australia also demonstrated that knowledge of FND among primary care providers remains limited.[9, 10] Another recurring issue is the debate over whether FND symptoms are voluntary. Two studies reported that a large proportion of GPs doubted the involuntary nature of FND symptoms.[11,12] Some primary care physicians also expressed discontentment with the lack of adhesion between the primary care setting and specialist services (e.g. neurologists, psychiatrists).[11]

The consensus amongst respondents was that the incidence of FND is increasing. This finding is consistent with emerging literature on the rising prevalence of functional symptoms, particularly in the post-pandemic context.[19,20] These results highlight the need for targeted education and specialist support to better equip primary care teams to manage FND effectively.

Implications for Practice:

The results of this study, supported by existing literature, suggest that recognition and management of FND in primary care have significant room for improvement. One key implication is the introduction of a trust-wide training course for healthcare professionals, focusing on the clinical features, management, and misconceptions surrounding FND. This could also help reduce stigma associated with the condition. Many respondents echoed this in their free-text responses (Q16), using phrases such as “training,” “clinical learning session,” and “education opportunities,” indicating that such initiatives would likely be well-received. Alongside enhancing GP knowledge and confidence, better patient education resources – such as “self-help tools” and “leaflets,” also suggested by respondents – would help reduce confusion following diagnosis.

Another major issue highlighted was the lack of multidisciplinary support. In line with this, over two-thirds of respondents indicated that a trust-wide dedicated FND service with a standardised care plan would be a valuable intervention, demonstrating that structural improvements are as important as addressing individual knowledge gaps. Furthermore, there is a clear need for a designated referral pathway, as reflected in the wide variation in views about which specialty should manage patients with FND (Q10). Early diagnosis and intervention are known to improve the chances of recovery in FND, and a seamless, well-integrated pathway between primary and secondary care should support more timely management.[21] Beyond the clinical benefits, such an approach should reduce unnecessary investigations and repeated referrals, delivering financial benefits to the local system and contributing towards service sustainability. This aligns with NHS England’s *Specialised Neurology Services Service Specification* (August 2025), which aims to enhance access to care and improve coordination between local and specialised services.[6]

Abbreviations

NICE
National Institute for Health and Care Excellence

NHS
National Health Service
FND
Functional Neurological Disorder
DSM
Diagnostic and Statistical Manual of Mental Disorders
GP
General Practice/Practitioner
MDT
Multidisciplinary Team
EMDR
Eye Movement Desensitisation and Reprocessing therapy

Declarations

Ethics approval and consent to participate:

This study was exempt from requiring ethics approval; it has been registered as a quality improvement project with Lancashire Teaching Hospitals NHS Foundation Trust (Audit code: NR/QI/2025-26/14).

Competing interests:

The authors declare no competing interests.

Funding:

None

Author Contribution

JT and BM performed the literature search and generated the survey with specialist input and review by AD and PG. All authors contributed to dissemination of the survey. BM formatted the results; JT performed statistical analyses and was a major contributor in writing the manuscript. All authors read and approved the final manuscript.

Acknowledgements:

Not applicable.

Consent to publish:

Not applicable.

Data Availability

Data will be made available on request

References

1. Functional Neurologic Disorder [Internet]. National Institute of Neurological Disorders and Stroke. Available from: https://www.ninds.nih.gov/health-information/disorders/functional-neurologic-disorder
2. Aybek S, Perez DL. Diagnosis and management of functional neurological disorder. BMJ. 2022;376:o64. 10.1136/bmj.o64.
3. Stone J, Hoeritzauer I, McWhirter L, Carson A. Functional neurological disorder: defying dualism. World Psychiatry. 2024;23(1):53–4. 10.1002/wps.21151.
4. Heyman I, Liang H, Hedderly T. COVID-19 related increase in childhood tics and tic-like attacks. Archives Disease Child [Internet]. 2021;106(5):420–1. 10.1136/archdischild-2021-321748.
5. Marotta A, Fiorio M, Fracasso I, Franchini CA, Defazio G, Tinazzi M. Functional Neurological Disorders as Seen by a Cohort of General Practitioners in Northern Italy: Evidence From an Online Survey. Front Neurol. 2021;12:583672. 10.3389/fneur.2021.583672.
6. Lloyd M. NHS England sets out national standards to improve neurology care for adults [Internet]. The Neurological Alliance. 2025. Available from: https://www.neural.org.uk/news/nhs-england-sets-out-national-standards-to-improve-neurology-care-for-adults/
7. Rehabilitation for chronic neurological disorders including acquired brain injury. NICE guideline' Reference number: NG252. Published: 15 October 2025 [Internet]. Available from: https://www.nice.org.uk/guidance/ng252
8. Carton S, Thompson PJ, Duncan JS. Non-epileptic seizures: patients' understanding and reaction to the diagnosis and impact on outcome. Seizure. 2003;12(5):287–94. 10.1016/s1059-1311(02)00290-x.
9. Walzl D, Carson AJ, Stone J. The misdiagnosis of functional disorders as other neurological conditions. J Neurol. 2019;266(8):2018–26. 10.1007/s00415-019-09356-3.
10. Baati I, Abdallah MB, Arous A, Guermazi F, Hentati S, Jdidi J, et al. Knowledge of conversion disorder by primary care physician. Eur Psychiatry. 2022;65(S1):S473. https://doi.org/10.1192/j.eurpsy.2022.1202.
11. Lehn A, Bullock-Saxton J, Newcombe P, Carson A, Stone J. Survey of the perceptions of health practitioners regarding Functional Neurological Disorders in Australia. J Clin Neurosci. 2019;67:114–23. 10.1016/j.jocn.2019.06.008.

12. 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. 10.1016/j.clineuro.2012.03.047.
13. Yogarajah M, Child R, Agrawal N, Cope S, Edwards M, Mula M. Functional seziures: An evaluation of the attitudes of general practitioners local to a tertiary neuroscience service in London. Epilepsia Open. 2018;4(1):54–62. 10.1002/epi4.12283.
14. Shneker BF, Elliot JO. Primary care and emergency physician attitudes and beliefs related to patients with psychogenic nonepileptic spells. Epilepsy Behav. 2008;13(1):243–7. 10.1016/j.yebeh.2008.03.001.
15. Finkelstein SA, Diamond C, Carson A, Stone J. Incidence and prevalence of functional neurological disorder: a systematic review. J Neurol Neurosurg Psychiatry. 2025;96(4):383–95. 10.1136/jnnp-2024-334767.
16. Stone J, Carson A, Duncan R, Coleman R, Roberts R, Warlow C, et al. Symptoms 'unexplained by organic disease' in 1144 new neurology out-patients: how often does the diagnosis change at follow-up? Brain. 2009;132(10):2878–88. 10.1093/brain/awp220.
17. O'Mahony BW, Nelson-Sice R, Nielsen G, Hunter R, Cope S, Agarwal N, et al. Cross-sectional evaluation of health resource use in patients with functional neurological disorders referred to a tertiary neuroscience centre. BMJ Neurol Open. 2024;6(1):e000606. 10.1136/bmjno-2023-000606.
18. Xing Y, Si L, Zhang W, Wang Y, Li K, Yang X. Etiologic distribution of dizziness/vertigo in a neurological outpatient clinic according to the criteria of the international classification of vestibular disorders: a single-centre study. J Neurol. 2024;271(5):2446–57. 10.1007/s00415-023-12166-3.
19. Janssen-Aguilar R, Galíndez-de la Portilla JP, Gómez-Alcorta R, Hernández-Palestina M, Mendez-Dominguez N, Ruiz-Chow A, et al. Impact of the COVID-19 pandemic on the incidence of patients with functional neurological disorder seen in a neurology emergency deparment. Psychiatry Clin Neurosci. 2022;76(11):595–6. 10.1111/pcn.13459.
20. Velazquez-Rodriquez Y, Fehily B. Functional Neurological Disorder: Historical Trends and Urgent Directions. J Neurol Res. 2023;13(1):12–32. 10.14740/jnr754.
21. Gelauff J, Stone J. Prognosis of functional neurologic disorders. In: Hallett M, Stone J, Carson A, editors. Handbook of Clinical Neurology. Volume 139. Amsterdam: Elsevier; 2016. pp. 523–41. 10.1016/B978-0-12-801772-2.00043-6.

Supplementary Files

This is a list of supplementary files associated with this preprint. Click to download.

- SupplementalMaterial.pdf