Review

Helping patients understand and manage their fibromyalgia: a structured educational approach for the clinical encounter

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ABSTRACT

Patient education is universally recognised as a cornerstone of fibromyalgia management, yet no international guideline offers operational guidance on what and how should be taught or within what clinical context. The result in real practice is predictable: structured education is seldom delivered, and when it happens it is intuitive and variable. This review addresses that gap by describing the Guided Self-Discovery Education (GSDE), a structured approach refined over more than two decades of clinical practice and designed to fit within the ordinary medical consultation with no specialised training. GSDE rests on three methodological commitments: validate the suffering before attempting any explanatory work; elicit the patient's own understanding of her condition rather than transmitting a generic explanation; and target the dominant drivers of alarm-system activation in fibromyalgia, stress, dispositional traits and biographical emotional load. The approach is grounded in the Fibromyalgia: Imbalance of Threat and Soothing Systems (FITSS) model, for which a recent large-sample international study provides initial empirical support. GSDE is positioned as complementary to Pain Neuroscience Education, the only other structured body of guidance on educating patients with chronic pain, from which it differs along four axes: validation-first sequencing, personal versus general explanatory models, targeting of dominant fuels rather than kinesiophobia alone, and deliverability in the ordinary consultation. The clinical Self-Reflection instrument used to prepare the ground for the personalised model is reproduced in full. Empirical validation of GSDE by randomised controlled trial remains the principal research agenda. In the meantime, the proposal offers a usable method for clinicians facing the operational silence of current guidelines.

Introduction

The clinician's problem

Patient education is universally recognised as a cornerstone of fibromyalgia management. Every major international guideline published over the past two decades (1-5) positions it, alongside graded exercise and cognitive-behavioural therapy, as first-line, non-pharmacological care. Yet guidelines say remarkably little about what should be taught, how it should be delivered, or within what clinical context it is realistically achievable. The operational gap is striking.

The German S3 guideline (2, 3) is the partial exception. Its dedicated working group on patient education formulated explicit recommendations: the diagnosis should be clearly communicated; therapeutic decisions should be shared, grounded in patient preferences and prior treatment history; a stepwise approach adjusted to severity should be pursued. These principles remain at the level of principle. They do not specify what the clinician should say, in what sequence, or how to navigate the resistances that inevitably arise when the conversation turns to the role of stress and personality in a condition most patients have been told is "all in their head".

The consequence in real practice is predictable. Structured education in fibromyalgia is, perhaps outside specialised multidisciplinary programmes, seldom delivered. Most clinicians confine themselves to confirming the diagnosis, excluding mimics, initiating pharmacotherapy, and offering broad lifestyle advice. Education, when it happens, is intuitive, improvised, and rarely documented. A cross-sectional

study reported that only 44% of physicians experienced in fibromyalgia were willing to accept additional patients with the diagnosis (6); qualitative research with patients paints the mirror image: decades of feeling disbelieved, labelled without explanation, and referred without continuity (7-9). This is not necessarily a failure of clinical goodwill; it reflects the absence of a viable operational method that clinicians can deploy within the time and setting they have.

This review is written from the vantage point of a practising rheumatologist who, over more than two decades of daily consultation, has faced this operational gap and has gradually constructed a structured educational method to address it. The approach is grounded in a theoretical model of fibromyalgia, the Fibromyalgia: Imbalance of Threat and Soothing Systems (FITSS) model, developed by our group and now receiving initial empirical support (10-12). My ambition is to present an operational proposal, grounded in well-established neurobiology and refined through clinical experience, for the context where most patients are actually seen: the ordinary medical consultation, without specialised programmes, dedicated teams or prior training.

The approach is presented first, in operational form, so that the reader can evaluate it as a clinical proposal before encountering its theoretical foundations. I then examine the only structured body of international guidance on educating patients with chronic pain, Pain Neuroscience Education (13, 14), and identify four axes along which the present proposal and that body of work complement each other. Limitations and research agenda close the review.

A note on the epistemic status of what follows is warranted. This article operates across three registers, kept as distinct as possible throughout. The first comprises claims grounded in established neurobiology and peer-reviewed evidence. The second is the FITSS model itself, a working hypothesis that has begun to receive initial empirical support but remains to be fully tested. The third is the GSDE method, a clinically derived proposal refined over two decades of practice but not yet evaluated in controlled studies. This is therefore a clinical-methodological proposal addressing the operational silence of current guidelines, not an efficacy study: no claim is made that GSDE is proven superior to usual care, and a randomised controlled trial remains the principal research agenda (Section 5).

The supplementary material conveys the description of the architecture of GSDE but cannot convey its practice. The method is fundamentally conversational: its efficacy depends on rhythm, pauses, the moment chosen to fall silent, the tone with which validation is offered, the shared laughter that signals recognition rather than dismissal, the acknowledgement of the patient's emotions (crying is not a rare event). The article can describe what is said; it cannot show how it is said, and the *how* is an essential aspect of the method.

Supplementary Files S1 and S3 provide audio/video recordings of a full demonstration of the first and second educational consultations, respectively, separated by two weeks as they would be in clinical practice. They reproduce the sequence I typically follow in my own consultations and are intended as a practical demonstration complementary to this text, addressing elements of clinical craft that written description cannot reach. Supplementary File S2 provides the Self-Reflection instrument referred to below, formatted for direct clinical use.

The neurobiological model presented to the patient in these consultations is deliberately simplified in relation to the complexity of the underlying science. This simplification is not a concession to clinical convenience but a pedagogical choice: the patient does not need to master the neurobiology of central sensitisation or salience network dysregulation in order to begin acting upon the factors that maintain her symptoms. Readers are, obviously, free to introduce elements of their own communication style, their favourite metaphors and authentic personal voice, while keeping track of what is happening in the patient's mind and ensuring that the therapeutic track is being followed.

Guided self-discovery education: the proposed approach

Ana is 47 years old. Diagnosed with fibromyalgia four years ago, she has since cycled through pregabalin, duloxetine and amitriptyline, none with sustained benefit, all with relevant side effects. She arrives carrying a folder of normal investigations and a tired summary: "*I am taking medication that does not work, I don't understand what is happening to me, and I no longer know what to do with my life*." The pharmacological path has been tried; the educational path has not. That work begins here.

The approach is built around a single pedagogical principle: patients do not need to understand fibromyalgia in general; they need to understand their own fibromyalgia. A generic exposition of central sensitisation and all the other mechanisms involved in fibromyalgia, would leave the patient probably confused, informed at best, certainly not transformed or empowered. What transforms is recognition: the moment patients identify, in their own biography and patterns, the mechanisms that drive their symptoms. Transformation also requires that the model be actionable, and that all of this be achievable within reasonable consultation time.

From these principles three methodological commitments follow. First, validate the suffering before attempting any explanatory work. Second, elicit discovery rather than transmit information: patients reach the understanding, with help, rather than receiving it passively. Third, target the most important aggravating and ameliorating factors that patients recognise in their personal history, not the factors that dominate chronic pain in general, but the factors that dominate this condition in this particular person.

The full therapeutic approach I advocate unfolds across four sequential steps: validating the suffering (Step 1); empowering through guided self-discovery (Step 2); personal transformation through structured psychotherapy (Step 3); consolidating autonomy (Step 4) (Fig. 1). This review addresses the educational core, Steps 1 and 2, deliverable by any clinician within the ordi-

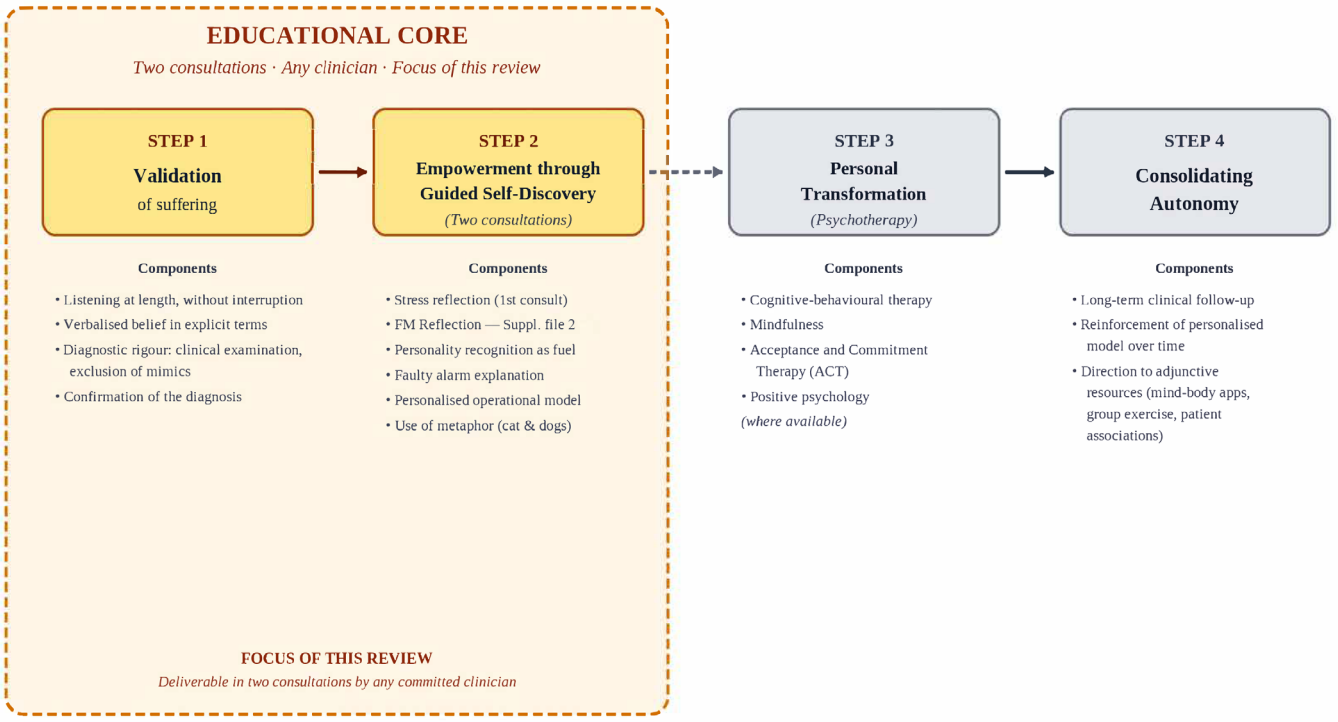


Fig. 1. Guided Self-Discovery Education within the four-step approach.
Steps 1-2 form the educational core deliverable in any ordinary medical consultation

nary medical consultation. Steps 3 and 4 involve referral to specialised psychotherapeutic care and long-term follow-up, outlined here only for context.

Step 1: Validation

Validation is not a courtesy. It is the epistemic foundation without which no subsequent educational work can succeed. Patients with fibromyalgia typically arrive carrying years of accumulated invalidation, from family, from employers, from clinicians. The qualitative literature is nearly unanimous on this point (7-9): disbelief is the defining wound. Without its explicit reversal in the consulting room, no model the clinician subsequently offers will be received.

Validation has three components. The first is listening attentively. The second is verbalising belief in explicit terms: "*I believe what you are telling me. Your pain is real. Your fatigue is real. Something is genuinely wrong, and it is now our task together to understand and tackle it.*" These are the single most important ten minutes the fibromyalgia consultation contains. For many patients, these are the first such words they have heard from any physician. The third is medical validation of the diagnosis itself, a thorough examination, clear exclusion of mimics, and transparent communication of the clinician's reasoning. Validation acknowledges the reality of the suffering while preserving the clinician's obligation to build, with the patient, a more useful understanding (Supplementary S1).

Step 2: Empowering the patient through guided self-discovery

- *Most aggravating factors*. With suffering validated and the diagnosis confirmed, the educational work begins, with a question rather than an explanation: "*In your experience, which circumstances make your symptoms worsen, and which improve them?*" Almost all patients, spontaneously or with minimal prompting, identify three main worsening factors: stress (whatever its cause), physical effort, and exposure to cold. The clinician does not supply these connections; the clinician elicits them. The first act of discovery has arrived from the patient, the only place from which it can be effectively received (Supplementary file S1).
- *Self-reflection*. At this point I introduce the central pedagogical instrument of the approach, which I refer to as the Self-Reflection on Fibromyalgia (reproduced in full in Supplementary File S2). This is not a diagnostic questionnaire and is not scored in any formal sense. It is a structured guided reflection that the patient takes home between the first and second consultations. Explaining each of its topics takes approximately 25 minutes of the first consultation and is as important as the instrument itself.

Three common errors must be anticipated and discussed to prepare the patient for this reflection. (Supplementary S1). First, the link between stress and symptoms in fibromyalgia is not instantaneous: it operates over hours or days, and, despite their apparent fragility, patients can endure considerable adversity before collapsing afterwards. Second, major emotional drama is not required for a flare, minor daily hassles have huge impact. Third, patients often cannot identify the effects of the stress they live under because it has become their natural status. This needs deconstruction.

Patients are asked to consider all of this in depth, with complete frankness, ideally with help from family or friends.

The core objective is for them to estimate how much their condition would improve if they were to live in full serenity from now on - from 0 to 100%. Crucially, this is not the realistic estimate but the hypothetical maximum: what improvement would a "miracle of inner calm" bring?

The patient is asked to do this work at home, at leisure, and to bring the completed reflection to the second consultation and, this matters, to come accompanied by a spouse, close family member, or trusted friend.

Table I presents the responses to self-reflection provided by the last 247 patients observed in clinic. These are uncontrolled observations drawn from a single clinician's specialised rheumatology practice and are offered as descriptive, hypothesis-generating data rather than as evidence of treatment effect.

Table I. Average responses to the self-reflection instrument in regular clinic by the author (n=247).

Question	**Average** (0–100)	**SD**
1. Intensity of symptoms at peak nervous tension	84.6	16.3
2. Typical level of nervous tension	79.7	13.8
3. Estimate of improvement in full serenity	78.3	20.7
4. I am a very worried person	86.8	16.9
5. I am a perfectionist	88.1	14.6

- *Personality traits*. The second consultation, approximately two weeks later, is where the personalised model is constructed. (Supplementary File S3). After reviewing laboratory results (almost always normal), I ask, without yet looking at the completed reflection, for its central outcome: "*how much do you think your symptoms would improve if, by some miracle, you could live in calm and peace?"* In more than eight out of ten patients, the answer exceeds 80%. This single figure reinforces the diagnosis from a direction no laboratory test can reach, and establishes, jointly with the patient, that stress is a crucial therapeutic target.

I then turn to personality, a sensitive topic I introduce indirectly, asking permission to describe the profile I typically encounter and inviting the patient to assess how closely it fits her. I describe three features. The first is the worrier and anticipator: someone who worries about many things, at many times, and takes everything in life very seriously. The second is the demanding perfectionist: someone for whom things must be just so, who finds fault where others might find achievement, and who weighs failure far more heavily than success. The third is the person unable to rest: someone whose mind never stops, whose sleep is restless with anticipations and ruminations (Suppl. File S3).

This profile description is, typically, endorsed at very high levels by the patients and companion (average agreement 93.5±10% in the sample described in Table I). Many patients interrupt me before the description is complete, often with visible relief at being described so accurately. The presence of the accompanying family member serves two functions: it corroborates the patient's self-recognition, and it begins the work of aligning the immediate social environment with the therapeutic framework we are building.

- *The overactive alarm system*. With the personality dimensions explicitly recognised, the neurobiological explanation can finally be offered, the patient is now ready to receive it. I ask whether the patient and companion agree that this profile reflects a permanent state of alert and vigilance, a continuous perception of threat. Full agreement is the rule. This, I explain, is the core issue. We all have an alarm system in the brain whose function is to detect threat and mobilise the whole body, the classical fight-or-flight response. Normally it activates, responds, and returns to rest. In fibromyalgia, for reasons combining genetic susceptibility, life experience and personality, the system remains activated by the continuous perception of threat: hence the muscular tension, the pain, the exhaustion, the non-restorative sleep, and the cognitive difficulty (15-17).

Metaphor is indispensable here, because it allows abstract mechanisms to become intuitively graspable. I use the metaphor of the cat surrounded by dogs (dogs standing for every perceived threat) both to explain why the patient hurts, feels exhausted and sleeps poorly, and to open the therapeutic handle: most of the dogs in our lives are the size we give them, and learning to see them for their real size is at the heart of recovery (Suppl. File S3). I have now presented this metaphor to over 500 patients and all agreed this is a fair representation of the way they experience life.

- *Fuel, not fault*. At this moment, a crucial framing must be introduced. The personality dimensions are constitutional characteristics, shaped by genes and biography, that in many contexts are virtues, responsibility, conscientiousness, care, alertness to injustice. However, in the specific context of fibromyalgia, they function as fuel: the ongoing inputs that keep the threat-detection system activated. The patient is not to be blamed or feel guilty for these traits: they are not chosen, no more than the colour of our eyes. Yet, the patient must exercise responsibility, as this can be controlled and modulated. The person is now in a position to act upon what feeds the alarm. Blame belongs to the past, responsibility shapes the future.

At the close of the second consultation the first educational arc is complete. The patient leaves with a personalised operational model that they can now articulate in their own words: my alarm system is permanently activated because my way of being in the world maintains it; this is not my fault, but it is something I can work on; and there are specific tools, above all structured psychological work, but also graded exercise, sleep hygiene, stress management, through which the alarm can be down-regulated. This is what I mean by a model with a handle: the patient understands why their nervous system is overactive and what they are asked to work on.

- *Physical exercise*. Exercise has a defined place in this approach: consistently encouraged and framed as one

of the most important tools for down-regulating the alarm system. The evidence base is consistent (17, 18), and the guidance is endorsed across the literature: start small, build up gradually, favour aerobic and mind-body modalities. The difference between this approach and a movement-centred educational paradigm is not whether exercise is included – it is, firmly – but which conceptual position it occupies.

Step 3 and 4:
Psychotherapy towards autonomy

For patients able and willing to continue, structured psychotherapy is the natural next step. Cognitive-behavioural therapy, with third-generation elements (mindfulness, ACT) and positive psychology, has the strongest evidence base for fibromyalgia among psychological interventions (20, 21). A central claim of this approach is that the two educational consultations described, delivered attentively, carry substantial therapeutic potential in themselves. Where structured psychotherapy is unavailable, the clinician can continue to accompany the patient, reinforcing the model and directing them toward adjunctive resources, such as online Apps (*e.g.* www.myfibromyalgia.org; https://swingtherapeutics.com/stanza/others). Some may be less effective than the fully mentorised programme, but it does not abandon the patient.

Neurobiological foundations: the FITSS framework

The clinical approach described above is grounded in a theoretical understanding of fibromyalgia that I have developed with a large panel of international experts over recent years (10, 11). Here, I summarise its most relevant aspects to the educational task, before turning to the empirical evidence that has begun to support it.

The convergent contemporary view, consolidated in a comprehensive review by our international panel (10), positions fibromyalgia as a nociplastic pain condition (22) in which the nervous system's threat-detection and pain-modulation circuits operate at pathologically elevated gain. Evidence converges from augmented neural activity in pain-anticipation and affective-evaluation regions, reduced descending inhibition, neurochemical dysregulation, autonomic and HPA-axis abnormalities, and disturbances of sensory integration extending beyond pain. Together these describe a nervous system caught in chronic over-protective vigilance.

Within this view, our group has proposed an integrative model, the Fibromyalgia: Imbalance of Threat and Soothing Systems (FITSS) model (11). It rests on three pillars. First, fibromyalgia is characterised by a hyperactive threat-detection system, the circuitry that identifies and responds to danger, encompassing the amygdala, insular cortex, HPA axis, and their cortical regulators. Second, by a hypoactive soothing-affiliative system, the circuitry of safety, contentment and affiliative bonding, mediated by parasympathetic and oxytocinergic pathways and expressed as equanimity and capacity for rest. Third, the imbalance keeps the salience network in continuous alert, amplifying not only painful inputs but the entire field of perception, sensory, social, emotional. This imbalance can arise from multiple origins (genetic predisposition, early adversity, chronic stress, prior inflammatory disease) and sustains itself through cross-modal amplification: a permanently activated alarm finds threat everywhere and dampens the soothing signals that would restore balance.

This framework dissolves a confusion that has long hampered the clinical communication of fibromyalgia: the false separation between "biological" causes and "psychological" drivers. Personality traits, stress responses, and emotional biography are themselves biological phenomena, mediated by the same neural circuits that generate symptoms. To name them as drivers is not to retreat from neurobiology, it is to identify its most proximal inputs.

The FITSS model has begun to receive direct empirical testing. In a large international study (n=2,416; 1,994 with fibromyalgia, 422 controls) (11), at present available as a preprint pending peer review, higher threat-system activation was associated with approximately twofold increased odds of having fibromyalgia, while activation of the soothing and drive systems was protective. A model based on individual emotions discriminated cases from controls with an area under the ROC curve of 0.81, performance equalling that of classifiers built on neuroimaging data. The strongest predictors of caseness were threat-related emotions (anxiety, sadness, anger); the strongest protective predictors were soothing and drive emotions (joy, pleasure, relaxation, contentment). The imbalance is real, measurable, and clinically distinctive.

The implications for patient education follow directly. If the dominant pathological substrate is an imbalanced affect regulation system that maintains the central alarm in continuous activation, and if its most discriminative features are emotional and dispositional, then effective education must help the patient recognise and act upon precisely these features, in herself, in her own life. The task is not to teach about the alarm system in the abstract, but to help her see her own threat-soothing imbalance and identify her fuels.

An online programme based on these principles has produced encouraging preliminary outcomes, which must be interpreted with caution given their uncontrolled, single-arm and self-selected nature. Among 87 participants, over 90% reported personally significant overall improvement (81% feeling better or much better), with a mean reduction of 27 points (47% from baseline) in Total FIQ score; sustained benefit over three years has been documented in individual cases. These observations await formal, controlled evaluation, a report of which is in preparation (www.myfibromyalgia.org).

Relation to pain neuroscience education

PNE as the only structured body of guidance

The international literature offers effectively only one structured programme of guidance on educating patients with chronic pain: pain neuroscience education (PNE), (13, 14, 23). Originating some twenty-five years ago in Australian physiotherapy for chronic low back pain, PNE was developed by Moseley,

Table II. Comparison of pain neuroscience education and guided self-discovery education across key dimensions.

Dimension	Pain Neuroscience Education (PNE/PSE)	Guided Self-Discovery Education (GSDE)
Discipline of origin	Physiotherapy (Australia, ~25 years ago)	Clinical rheumatology (Portugal, ~20 years of practice)
Primary clinical context of development	Chronic low back pain	Fibromyalgia
Conceptual substrate	Central sensitisation; pain as protective output of an over-protective nervous system	FITSS model: imbalance between hyperactive threat system and hypoactive soothing system, sustaining a hyperactive salience network
Pedagogical method	Didactic explanation supported by metaphor, analogy, structured materials; increasingly co-designed and embodied	Validation followed by guided self-reflection; patient elicits her own model from her own life with clinician's guidance
Entry point of educational work	Explanation of how pain works in general	Validation of suffering, then personalised exploration of her fibromyalgia
Dominant fuels of alarm activation addressed	Primarily kinesiophobia (fear of movement)	Stress, hypervigilance, perfectionism, biographical emotional load, dispositional traits – framed as "fuel, not fault"
Therapeutic destination	Movement reactivation; graded exposure to feared activities	Structured psychotherapy (where available) plus exercise, sleep hygiene, stress management – anchored in personalised model
Primary clinical setting envisaged	Specialised pain physiotherapy programmes; dedicated educational sessions	Ordinary medical consultation (rheumatology, internal medicine, primary care)
Deliverability requirements	16+ hours of specialised clinician training; structured materials; dedicated sessions; increasingly sophisticated tools (sequential art, virtual reality)	Two ordinary consultations; one paper instrument; clinical attitudes available to any committed physician

The two approaches share a neurobiological substrate (central sensitisation, threat-system overactivation) and a common goal (helping the patient understand the mechanistic nature of her pain), but differ in their sequencing, individualisation, fuel-targeting, and delivery requirements.
FITSS: Fibromyalgia: Imbalance of Threat and Soothing Systems; PNE: Pain Neuroscience Education; PSE: Pain Science Education; GSDE: Guided Self-Discovery Education.

Butler and collaborators as a means to underline the critical role of central sensitisation (13, 24). Its central aim is reconceptualisation – helping patients understand that chronic pain is, in many instances, the output of an over-protective nervous system rather than a faithful report of tissue damage.

The evidence base in fibromyalgia comprises two meta-analyses and one umbrella review. Suso-Martí *et al*. (25) found a moderate effect on pain intensity (SMD -0.76) but no significant effect on fibromyalgia impact, anxiety or catastrophising; evidence quality was low with substantial heterogeneity (I^2=92%). Saracoglu *et al*. (26), examining PNE as an adjunct to multimodal treatment, reported larger effects (SMD ~1.05 for both impact and pain). Cuenca-Martínez *et al*. (27) rated all sixteen reviews they synthesised as critically low quality (AMSTAR-2).

The field's own acknowledged limitations

The most candid account of where PNE currently stands comes from within the field. In a recent paper, the PETAL Collaboration, the consortium led by Moseley that has driven PNE's development, explicitly acknowledges that fewer than half of patients receiving PNE from experienced educators achieve the intended reconceptualisation; that qualitative studies document patients reporting they felt invalidated by the educational encounter; and that even trained clinicians frequently cannot deliver PNE effectively (14). A large survey found that approximately 40% of PNE-trained physiotherapists could not name a single educational strategy they routinely used (14). A 16-hour cluster-randomised training trial produced an improvement in patient self-efficacy but no improvement in pain or disability (28). The field is in active reform, but the magnitude of the limitations is precisely what the present article addresses. The developers themselves now position PNE as an adjunct to exercise rather than a standalone intervention (29).

Four axes of difference and complementarity

The approach proposed here, the Guided Self-Discovery Education, differs from PNE along four axes that together delineate a complementary, rather than competing, contribution (Table II). These axes are not criticisms of PNE within its domain of origin (chronic low back pain in physiotherapy) but observations about the fit of canonical PNE to the clinical problem of educating fibromyalgia patients within the ordinary medical consultation.

Axis 1: Validation precedes explanation

PNE, in its canonical form, opens with explanation, the clinician teaches the patient how pain works, through structured presentation and metaphor, often in group settings. For a patient who has spent years not being believed, being taught how pain works before being heard reproduces the very experience that produced her therapeutic disillusionment. The invalidation now



Fig. 2. Inputs to the hyperactive alarm system in fibromyalgia.
Where Pain Neuroscience Education and Guided Self-Discovery Education focus

acknowledged in PNE's qualitative literature (14) is, at least in part, a consequence of this ordering. GSDE inverts it: the patient is first explicitly believed; the diagnosis is confirmed with rigour; personal experience is revised and only then does the neurobiological explanation arrive at a moment when she is ready to receive it. This is not a procedural refinement; it is the precondition without which the subsequent work cannot land.

Axis 2:
An individual operational model versus a general explanatory model
PNE provides a model of how chronic pain works in general; GSDE provides a model of how each person's fibromyalgia works in particular. A general model gives the patient information; a personalised operational model provides a handle on her own condition. The PNE literature documents patients who, even after successful educational sessions, continue to attribute their pain to structural damage, the general model failed to displace the personal model the patient had brought in (14). GSDE bypasses this failure mode by making the patient's personal model itself the object of the educational work. From that discovery follows everything else.

Axis 3:
Targeting the dominant fuels of alarm-system activation
PNE correctly identifies the central mechanism, an over-protective threat-detection system, but, reflecting its origin in chronic low back pain, addresses primarily one source of activation: kinesiophobia, often the dominant input in that population. In fibromyalgia, the dominant inputs are stress, threat hypervigilance, perfectionism, biographical emotional load, and the dispositional patterns maintaining the threat-soothing imbalance (10-12) (Fig. 2). A patient who becomes physically active without addressing these may walk far-

ther while her alarm remains fully lit. GSDE targets these inputs explicitly, through the personality conversation and the framing of dispositional traits as fuel rather than fault.

Axis 4: Deliverability in the ordinary consultation

PNE in its current form requires specialised clinician training (sixteen hours in the most-studied implementation, demonstrably insufficient (29), dedicated educational sessions outside the normal consultation, structured materials, and increasingly sophisticated tools (14). It is, in essence, an intervention designed for specialised pain physiotherapy programmes. GSDE is designed from the outset for the ordinary medical consultation: deliverable in two visits by any committed clinician, with a single paper instrument and no specialised prior training. This is not a claim that GSDE is "easier", attentive listening, careful pacing, and disciplined elicitation all require clinical craft that takes time to develop. But the conditions GSDE requires exist already in the consulting rooms where most fibromyalgia patients are seen, whereas PNE's conditions exist in a small minority of specialised settings.

Complementarity, not opposition

These four axes do not diminish PNE within its domain of origin. They identify a pedagogical territory that canonical PNE does not occupy, and that fibromyalgia patients inhabit in overwhelming numbers. The two approaches can coexist productively. A patient referred onward to a specialised pain programme may benefit substantially from PNE-based work on movement reactivation; the personalised model built in the consulting room then becomes the conceptual scaffold within which the physiotherapy work proceeds. Conversely, a patient who has completed PNE and remains symptomatic, as a substantial proportion do, may benefit from GSDE as a way to reach the affective and dispositional drivers PNE does not directly target. What matters is that fibromyalgia patients, wherever they are seen, receive structured educational care appropriate to their context, not whether that care carries one acronym or another.

Discussion

What this proposal is, and what it is not

The approach described in this article is a clinical proposal refined over more than two decades of practice, not an intervention validated by randomised controlled trial. The FITSS model on which it rests is itself a working hypothesis (11), although the recent large-sample analysis discussed above provides initial support for its central claim (12). The principal research agenda is a randomised trial comparing GSDE against usual care, with fibromyalgia impact, patient activation and quality of life as primary endpoints.

On generalisability beyond fibromyalgia

The principles underlying GSDE (validation before explanation, elicitation over transmission, focus on personal rather than generic models, targeting of dominant threat-system inputs) are not specific to fibromyalgia. They could in principle apply across the spectrum of nociplastic pain and central sensitisation syndromes. Whether GSDE proves useful in chronic low back pain or other rheumatic conditions with strong nociplastic features, in chronic fatigue syndrome, or in other conditions of the fibromyalgianess spectrum (1) is an empirical question I leave for future work.

On patient heterogeneity and the convergence of core fuels

A reasonable objection is that fibromyalgia populations are heterogeneous and that a model built around a dispositional profile may not fit all patients. A distinction between two levels helps locate where heterogeneity does, and does not, operate. At the level of the dominant fuels of alarm-system activation, excessive threat perception (whatever its source), perfectionism, persistent restlessness, a predominance of threat-related emotions and a relative scarcity of soothing and affiliative ones, our clinical and empirical observations point not to heterogeneity but to marked convergence. In the present series these dimensions show high means with comparatively limited dispersion (Table I), agreement with the dispositional profile reaches 93.5±10%, and the emotion-based FITSS classifier discriminates cases from controls with an area under the ROC curve of 0.81 (12). A substantial literature has nonetheless described fibromyalgia subgroups on the basis of pressure-pain thresholds and psychological profile (30), and of psychosocial adjustment patterns that respond differently to interdisciplinary treatment, including a relatively well-adjusted 'adaptive coper' subgroup (31). These taxonomies are not in tension with the present account: they stratify patients chiefly by the degree and elaboration of distress rather than by the nature of the core fuels, and even the more adaptive subgroups remain organised around the same threat-soothing axis, at lower intensity. At a second level, however, coping style, illness behaviour, interpersonal dynamics and a consolidated illness identity, heterogeneity is real and clinically important; but these are best understood not as alternative primary drivers, rather as secondary processes that maintain and amplify symptoms, elaborating upon a largely shared affective substrate in ways that differ from patient to patient. Established attempts to subgroup fibromyalgia patients, by pressure-pain thresholds combined with mood, catastrophising and perceived control (30), or by psychosocial profile into dysfunctional, interpersonally distressed and adaptive-coper clusters (31), capture precisely this second-level variation: in my reading they describe how a shared threat-soothing imbalance is expressed and coped with, rather than competing primary mechanisms. Two caveats temper the convergence claim: the present sample derives from a specialised rheumatology practice, which may enrich for particular profiles, and the heterogeneity that exists is largely one of intensity and elaboration rather than of kind. Importantly, GSDE is by design robust to this debate: because it elicits each patient's model from her own biography rather than imposing a uniform explanation, it surfaces whatever fuels predominate in the individual case and, where the typical profile does

not apply, the same elicitation procedure reveals it.

Clinical applicability and expected outcomes

Three questions of applicability deserve explicit comment. First, regarding likely responders: the approach is expected to engage patients who recognise the dispositional profile (endorsed at high levels in the present series), who retain the reflective capacity to examine their own patterns, and who can attend the second consultation accompanied by a trusted person. As a clinically derived hypothesis rather than an established finding, patients with severe untreated psychiatric comorbidity, very low readiness or activation, or rigidly somatic illness attributions may require additional or prior intervention before the educational work can land. Second, regarding integration with multidisciplinary care: GSDE is not a substitute for that care but the step that produces the personalised model upon which it rests. The model built in the consultation becomes the conceptual scaffold for structured psychotherapy (cognitive-behavioural therapy with third generation and positive-psychology elements), graded exercise, sleep and stress management, and pharmacotherapy where indicated, across primary and secondary care. Third, regarding measurable outcomes: a future trial and routine practice might reasonably track fibromyalgia impact (FIQR), patient activation (PAM), pain intensity, pain catastrophising (PCS), self-efficacy (PSEQ), mood and sleep, together with the degree to which patients reconceptualise their condition. The preliminary FIQ change observed in the online programme is offered only as an uncontrolled signal pending such evaluation. Beyond its patient-facing purpose, GSDE is also intended as a teachable, clinician-facing framework: the operational silence of guidelines is felt not only by patients who go uneducated but by the clinicians who lack a usable method, and the approach is offered as a response to both.

The euphemism problem: naming the psychological as biological

One theme deserves direct address before this article closes. Throughout the preceding sections I have spoken openly about stress, personality, emotional biography and the affect-regulation imbalance as drivers of fibromyalgia symptoms, without resorting to the linguistic evasions that have come to characterise much clinical communication in this field. Clinicians regularly soften 'psychological' to 'biopsychosocial', replace 'personality' with 'neurodiversity', and avoid altogether the word 'stress' for fear of stigmatising the patient. The intention is generous; the effect is not. By avoiding these terms, the clinician confirms to the patient that there is something that should be hidden, that 'psychological' must be code for 'not real', that 'personality' must be code for 'it's your fault'. This is scientifically obsolete and clinically counterproductive. Personality traits are stable patterns of activity in identifiable neural circuits. Stress responses are biological events with measurable consequences for nociceptive processing, autonomic regulation, and central sensitisation. The threat system that fires too readily in fibromyalgia is the same threat system that fires in any organism, and it does not become less biological because it has psychological outputs. Naming the psychological as a natural and respectable manifestation of the biological is not a courtesy, it is the precondition for an educational encounter that does not, by its very vocabulary, reinforce the stigma it claims to dispel. GSDE requires open and explicit engagement with the psychological dimensions of fibromyalgia. This is essential both for patient-centred care and for making the approach personally meaningful. Once the patient has been validated and has 'discovered' the role of psychological factors in her own case, blame and stigma can be dissolved.

Conclusion

International guidelines have established the primacy of patient education in the management of fibromyalgia without equipping clinicians with a method to deliver it. Guided Self-Discovery Education is one proposal for filling that operational silence. It is a clinical operationalisation of the FITSS model, complementary to rather than competing with Pain Neuroscience Education, designed for the common clinical encounter. Whether future work validates this specific approach, refines it, or replaces it with something better, the obligation is the same: to give clinicians an operational method by which to fulfil what guidelines ask of them. Fibromyalgia patients deserve and need more than a diagnostic label, a leaflet, and a prescription, they deserve an operational understanding of their own condition that they can put to effective use.

Data availability

The clinical observations reported in this review, including the responses to the Self-Reflection instrument from 247 consecutive patients summarised in Table I, average agreement levels with the personality profile, and acceptance of the metaphor of the cat surrounded by dogs in over 500 patients, derive from the author's routine clinical practice. Outcome data referred to from the online MyFibromyalgia programme (87 participants, FIQ change scores) are similarly unpublished. Aggregated, fully de-identified data underlying these specific claims may be made available by the author upon reasonable request and within the constraints of patient confidentiality. A formal report of the MyFibromyalgia® programme outcomes is in preparation.

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