Invisible pain, visible change: the impact of multidisciplinary treatment on women with fibromyalgia

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Abstract

Objective

Fibromyalgia is a hidden chronic condition characterised by persistent pain and fatigue, disproportionately affecting women. Because its symptoms are invisible and unpredictable, those living with it frequently encounter scepticism from others, as well as self-doubt. This study examines the experience of women with fibromyalgia participating in a structured multidisciplinary intervention, tracing their journey from non-acceptance toward coping and adjustment across personal and family domains.

Methods

Sixteen Israeli women diagnosed with fibromyalgia participated in a 30-week multidisciplinary fibro-therapy intervention. Following the program, in-depth interviews were conducted with each participant. Data were analysed qualitatively using Grounded Theory methodology to identify emerging themes related to illness perception, acceptance, and adaptive coping.

Results

Participants described a meaningful shift in how they related to their diagnosis. After completing the intervention, women reported accepting fibromyalgia as an integrated part of their lives and reframing their understanding of the illness and its consequences. Key themes included movement from denial and isolation toward self-compassion, redefined identity, and more proactive coping strategies within both personal and family contexts.

Conclusion

Because fibromyalgia presents no outward signs and follows an unpredictable course, women with the condition are particularly vulnerable to social scepticism and self-doubt. Participation in a comprehensive, multidisciplinary therapeutic intervention can facilitate disease acceptance and cultivate a more proactive and compassionate approach to living with fibromyalgia. These findings underscore the value of structured, long-term psychosocial support for this population.

Key words

fibromyalgia, fibro-therapy, invisible disease, transparent disease, acceptance

Clinical and Experimental Rheumatology 2026; **44**: 1139-1146.

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Received on July 4, 2025; accepted in revised form on February 17, 2026.

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Competing interests: none declared.

Introduction

Fibromyalgia (FM) is a chronic condition characterised by persistent, widespread musculoskeletal pain. It often includes fatigue, sleep disturbances, and cognitive and somatic symptoms (1-3). Despite high prevalence and functional burden, FM remains difficult to diagnose and manage. This challenge stems from the lack of clear biomedical markers and the varied presentation of symptoms (4, 5). These features lead to lengthy diagnostic processes and ongoing uncertainty for patients.

Women with FM often report severe impairments in daily functioning and emotional well-being, as well as strained interpersonal relationships. The unpredictable nature of pain and the absence of visible signs complicate communication with family members, employers, and healthcare providers. These issues contribute to distress and make coping difficult. Therefore, multidisciplinary interventions are increasingly recommended for FM, especially for people with low physical fitness and complex psychosocial needs (6, 7).

Building on these recommendations, the fibro-therapy (FT) model at the Ezra Le'Marpeh Rehabilitation Center in Shderot (Fig. 1) offers a comprehensive body-mind intervention for female fibromyalgia patients (FFMPs). The 30-week program combines physiotherapy, Pilates, hydrotherapy, yoga, emotional support group, horticultural therapy, culinary therapy, and ceramics workshops. It is structured into three phases to support physical function, emotional processing, and long-term coping. All activities are led by certified or licensed professionals.

Previous quantitative and mixed-methods studies have shown that the FT model helps women with FM cope, build resilience, and feel more in control (8-11). However, while these findings highlight important outcomes, we know less about how participants themselves experience and understand their illness during the intervention. More specifically, there is a lack of qualitative research focused on how women with FM make sense of chronic pain, accept their condition, and adapt to life with symptoms that are not visible to others. To address this need for deeper understanding, this qualitative study explores the lived experiences of women with FM who joined the FT program. We use a phenomenological-narrative approach and Grounded Theory (12). The study traces participants' non-acceptance, meaning-making, and adjustment during intervention, focusing on changes in how they view pain, illness, and coping in personal and family settings.

Methods

This study forms part of a broader mixed-methods study aimed at exploring different coping mechanisms and available coping resources among FFMPs living in an area affected by ongoing security threats. Focusing on the qualitative findings, this phase revealed underexplored dimensions of the illness experience, including perceptions of the disease, family understandings of fibromyalgia, symptom invisibility, and the enduring presence of chronic pain in daily life. The analysis of participants' narratives showed that, alongside shifts in FFMPs' medical indicators and in their resilience and coherence measures (8-11), there were also noticeable changes in how they viewed and accepted the disease. Early in the narrative analysis, a central theme emerged that has received limited attention in the fibromyalgia literature, namely the framing of the syndrome as an invisible disease.

This study is grounded in the narrative framework of illness experience, which led to the selection of the phenomenological-narrative method. This qualitative approach does not examine objective reality. Instead, the phenomenological method focuses on how participants interpret and experience that reality. Data collection took place through in-depth interviews (13). In qualitative research, narrative discourse is the most effective means of conveying human experiences. The phenomenological paradigm is especially appropriate because it seeks to uncover the 'essence' of human experience and its core meaning. The researcher explores the phenomenon itself. The term 'phenomenon' broadly refers to how individuals make sense of objects and events in the world.

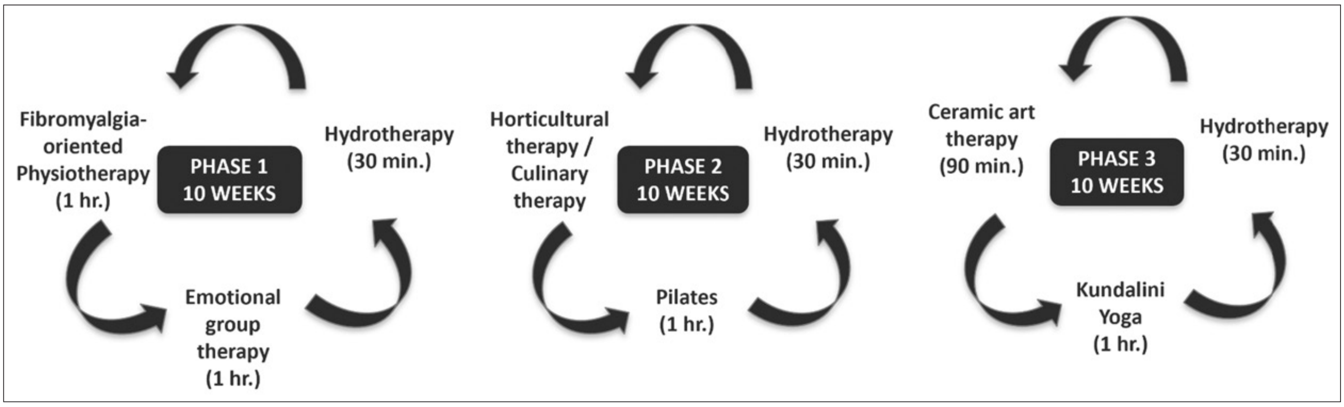

Fig. 1. The fibro-therapy model of intervention.

It is examined as a subjectively lived experience, encompassing perceptions, memories, thoughts and imagination (13).

Narrative work refers to how narratives are created, expressed, maintained, or modified (14). These narratives weave together elements such as time, social setting, complex experiences and personal interpretation. Together, they form a cohesive story in which the narrator, or central figure, actively shapes the narrative (15). In recent years, greater attention has been given to health research on how individuals construct meaning around illness. The meanings people assign to major life disruptions may influence their coping strategies (16). This study centres on the lived experience of illness and examines it through phenomenological concepts. We focus on how individuals interpret the meaning of their thoughts and actions in specific contexts. Although the interview guide did not include direct questions about FM as an invisible disease, this theme emerged consistently during interviews.

Participants

A total of 16 Jewish FFMPs, ranging in age from 19 to 75, who had received a clinical diagnosis of FM at least one year prior to the study, were interviewed. These participants took part in the research described in previous publications (9-11) and completed the full 30-week FT program at the Ezra Le'Marpeh Center. Recruitment focused on FFMPs who consented to participate in the qualitative component of the study and were willing to share their personal experiences and coping approaches.

The fibro-therapy multidisciplinary intervention program

The FT program is a 30-week multidisciplinary intervention delivered in three sequential phases (Table I). All activities were led by certified or licensed professionals according to their respective disciplines:

1. Physiotherapy is delivered by a licensed physiotherapist.
2. Group therapy is delivered by a licensed mental health professional.
3. Hydrotherapy is delivered by a certified hydro-therapist.
4. Horticultural therapy is delivered by a horticultural therapist.
5. Culinary therapy is delivered by two professionals: a chef and a licensed mental health professional.
6. Pilates is delivered by a certified Pilates instructor.
7. Ceramic art therapy is delivered by two professionals: a ceramic artist and a licensed mental health professional.
8. Kundalini Yoga is delivered by a certified yoga instructor.

Data collection

During the COVID-19 pandemic in 2020, the primary researcher conducted phone interviews and diligently maintained participants' anonymity throughout the recording and transcription processes.

Data analysis

We used the Grounded Theory approach for data analysis. Codes and categories emerged naturally from the data. Thematic analysis was carried out (17). This process involved identifying, classifying, and interpreting recurring patterns in the collected material. We defined the unit of analysis, organised themes and sub-themes into a hierarchy, and developed a theoretical model to explain the observed reality (18). In qualitative research, data analysis is an integrative process that breaks down and reconstructs content (14, 19). This method centres on identifying key elements that consistently appear throughout the data. The analysis of qualitative data involves organising and interpreting the collected information to enable meaningful understanding. The thematic analysis method was applied to guide the analytical process (18). To maintain reliability in this research, significant time and resources were dedicated to securing consistent data. Emphasis was placed on systematic data collection, the inclusion of multiple case studies, and collaboration with the supervisory team, who reviewed the findings, assessed the research process, and offered feedback throughout both the analysis and writing stages (13, 20).

Findings

Throughout the interviews, participants consistently described the challenges of living with chronic pain in the absence of visible clinical signs and the difficulties this invisibility created within family and social contexts. Following participation in the FT program, a clear shift emerged in how participants' relationships with pain, illness, and coping. The analysis identified four central themes, presented below.

Table I. Overview of the fibro-therapy multidisciplinary intervention program.

Program phase	Weeks	Therapeutic modality	Description and focus
Phase 1: Physical stabilisation and body awareness	1-10	Physiotherapy	Individual and group-based sessions focus on pain management, posture, mobility, and basic functional movement.
		Pilates	Low-impact exercises aimed at improving core strength, flexibility and controlled movement adapted to participants' physical limitations.
		Hydrotherapy	Water-based therapeutic exercises are designed to reduce joint load, improve mobility and alleviate pain.
		Group emotional support	Facilitated group sessions providing a safe space for emotional expression, normalisation of symptoms and peer support.
Phase 2: Emotional processing and skill development	11-20	Physiotherapy	Continued physical rehabilitation with gradual progression in intensity and functional capacity.
		Pilates	Advancement of strength and stabilisation exercises while maintaining symptom-sensitive pacing.
		Hydrotherapy	Ongoing aquatic therapy emphasising endurance, relaxation and body confidence.
		Group emotional support	Deeper emotional processing, development of coping strategies and exploration of illness-related identity changes.
		Horticultural therapy	Experiential sessions using gardening activities to promote mindfulness, sensory regulation and connection to growth processes.
		Culinary therapy	Group-based cooking sessions integrating practical skill-building with emotional reflection and cooperation.
Phase 3: Integration, acceptance, and meaning-making	21-30	Physiotherapy	Maintenance-oriented physical activity emphasising autonomy and self-management.
		Pilates	Independent and group exercises support long-term physical regulation.
		Hydrotherapy	Continued aquatic sessions focused on relaxation and sustained movement. preparation for post-program coping.
		Ceramic art therapy	Creative process serving as reflective integration of the therapeutic journey and personal meaning-making.
		Kundalini Yoga	Mind-body practice emphasises breathing, awareness, relaxation and internal balance.

"I cannot accept a pain which I cannot explain"

Participants described the initial experience of FM as confusing and destabilising, largely because their pain lacked clear biomedical explanations. The absence of visible signs made it difficult for them to understand, accept, and legitimise their condition:

"I had pains in my body which I couldn't define. Living alongside this uncertainty was difficult, and it took me a long time to understand how to perceive it" [P1].

"I searched all over my body for bruises but couldn't find any, which made me frustrated with my own body" [P2].

Several participants reported that recognition of FM came from external or incidental sources rather than from a clear diagnostic process:

"When the symptoms started, I didn't understand what was happening to me. All the medical tests didn't show anything was wrong. By chance, I saw a program describing fibromyalgia and realised those were my symptoms" [P3].

The sudden realisation that pain was chronic and unexplained forced participants to confront a new reality. Some initially dismissed FM as illegitimate, only later recognising its relevance to their own experience:

"Before I understood I had fibromyalgia, I thought it was something women invented to avoid working. I couldn't believe it was now part of my life" [P5].

Uncertainty regarding the nature of their pain led many participants to feelings of anger, self-blame, and emotional distress:

"I was angry and frustrated with my body. I feared the disease meant I was lazy, and that crushed me emotionally" [P6].

Several participants described questioning their psychological stability before understanding that FM was a physical condition:

"I thought maybe I had a mental problem, so I went to a psychologist" [P2].

"I have a transparent disease: nobody believes me"

A dominant theme in participants' narratives was the lack of acceptance and validation from their social environment. Family members frequently minimised or dismissed their pain due to its invisibility:

"When I lie in bed because of pain, they think it's the flu. They say there is no such thing as fibromyalgia" [P8].

"My husband and children didn't believe me at first and asked why I was sleeping all day" [P4].

In some cases, disbelief was accompanied by accusations of exaggeration or secondary gain:

"My father thought I was making up the disease to get disability benefits" [P5].

Participants described feeling unheard and unsupported, even when their diagnosis was known:

"Everyone knows I have fibromyalgia, but they still ask why the pain started again. It feels like talking to walls" [P8].

Explaining pain repeatedly became exhausting, particularly because others struggled to relate to symptoms without visible signs:

"It's hard to explain where it hurts. People understand the flu, but they don't know how to relate to fibromyalgia" [P10].

In response to doubt and judgment, many participants chose to conceal their pain:

"I put on a mask and smile, but inside everything hurts" [P6].

"I suffer quietly at home because it's hard for my family to accept it" [P4].

Several participants reported that others attributed their pain to psychological causes:

"People would say I was lazy or that something was wrong with me mentally" [P11].

"They think fibromyalgia is a psychiatric problem, even when it's not" [P12].

This disbelief intensified feelings of devaluation, particularly as participants' functional abilities declined:

"I kept saying I was in pain, and no one believed me" [P2].

"It was hard to cope with the decline in my work performance and not being able to explain it" [P13].

Acceptance after intervention

After participating in the FT program, participants described a noticeable change in how they related to pain and illness. Acceptance emerged as a central process, reflected in participants' acknowledgment of pain as part of everyday life:

"Today, I've come to terms with the fact that I experience pain" [P4].

"Acceptance grew once I realised it won't get easier, so I need to ease myself within the situation" [P6].

Participants described understanding pain as fluctuating rather than constant or catastrophic:

"I learned that there are ups and downs. My body isn't what I want it to be, but what it is now" [P14].

Acceptance was accompanied by behavioural changes, including pacing, rest, and increased body awareness:

"Now I listen to my body and allow myself to rest" [P13].

"After the program, I know when to stop and go to sleep before collapsing from exhaustion" [P15].

Several participants described openly acknowledging their limitations:

"Today I accept that I have a disability" [P6].

As acceptance increased, pain occupied less psychological space:

"In the past, I was preoccupied with the pain all the time. Today, I don't give fibromyalgia a place" [P11].

Acceptance also involved learning to request and accept help from family members:

"I allow myself to get into bed and ask my family for help. My spouse takes on tasks I used to do" [P3].

"I learned to ask for help and feel much better about it" [P16].

Coping with fibromyalgia after intervention

Following the intervention, coping was characterised by increased agency and engagement in self-care. Participants described actively applying tools acquired during the FT program:

"I exercise every day and use the tools I learned. I gained psychological tools no less than physical ones" [P3].

Several participants emphasised a renewed sense of control over their bodies and lives:

"I regained control over my body. It's not a temporary solution, it's a way of living" [P14].

The participants described a transition from passive endurance of pain to active coping, supported by both physical practices and emotional resources developed during the FT program.

Discussion

This study explored the lived experiences of women with FM who participated in a 30-week multidisciplinary FT program, with particular attention to how they perceived pain, illness, and coping over time. The findings illuminate the process through which participants moved from uncertainty, self-doubt, and concealment toward acceptance, agency, and adaptive coping. Central to this process was the experience of FM as an invisible illness and the ongoing struggle to legitimise pain that lacks observable clinical markers.

Consistent with prior literature, participants described profound difficulty accepting pain that could not be medically explained or externally verified (21, 22). Early narratives revealed confusion, frustration, and mistrust of the body, as reflected in statements such as "I had pains in my body which I couldn't define" and "I searched all over my body for bruises but couldn't find any." These accounts echo research showing that the absence of visible symptoms undermines patients' confidence in their bodily perceptions and delays acceptance of chronic illness (4, 23).

Coping with fibromyalgia has been widely examined in international studies, with consistent evidence showing that maladaptive coping strategies such as avoidance, catastrophising, and emotional suppression are associated with greater pain intensity, fatigue, and psychological distress (24, 25). In contrast, adaptive coping strategies, including acceptance, pacing, emotional awareness, and active problem-oriented coping, have been linked to improved functioning and quality of life (26, 27). The present findings align with this body of literature, as participants initially described avoidance, concealment, and self-doubt, followed by a gradual shift toward acceptance and active engagement in self-care.

International qualitative studies have similarly reported that acceptance does not imply resignation but rather a redefinition of the relationship with pain (26). This pattern was evident in participants' accounts of learning to live with 'ups and downs', to listen to bodily signals, and reduce self-criticism. The narratives suggest that acceptance served as a turning point, enabling participants to move from constant preoccupation with pain to a more balanced, functional daily life, consistent with acceptance-based coping models described in the literature (25).

The theme "I have a transparent disease, nobody believes me" illustrates how invisibility extended beyond the medical sphere into participants' social worlds. Family members, employers, and even healthcare providers frequently questioned the legitimacy of participants' pain, attributing symptoms to laziness, exaggeration, or psychological instability. Such responses align with existing findings on stigma and disbelief toward individuals with invisible chronic conditions (28-30). Participants' accounts of being told that their pain was "in their head" or that they were "making excuses" reflect the broader social process through which invisible illness is delegitimised and moralised.

Importantly, the data show that stigma was not merely external but became internalised. Several participants reported doubting their own sanity or seeking psychological treatment out of fear that their pain was not 'real'. This internalisation of disbelief is consistent with literature on invisible illness, which suggests that repeated invalidation can lead patients to question their own experiences and suppress emotional expression (31, 32). Participants' tendency to conceal pain, "put on a mask," and avoid discussing their condition further demonstrates how invisibility fosters isolation and emotional avoidance.

The findings also contribute to ongoing debates regarding pain as a disease entity. Although empirical evidence supports the debilitating nature of chronic pain (33, 34), participants' narratives reveal that pain without visible pathology is often not recognised as legitimate. The lack of formal recognition was reflected in participants' fear of being perceived as lazy, unproductive, or undeserving of support. These experiences underscore the gap between scientific acknowledgment of pain as a pathological condition and its social recognition in everyday life.

Participation in the FT program marked a turning point in how participants related to their pain and illness. Acceptance emerged as a central mechanism of change. Rather than eliminating pain, acceptance involved recognising pain as a stable yet manageable presence and learning to adapt daily functioning accordingly. Statements such as "I have come to terms with the fact that I experience pain" and "I listen to my body now" illustrate a shift from resistance and self-blame toward self-compassion and agency. This process aligns with research linking acceptance to improved coping, reduced catastrophising, and enhanced functioning among individuals with FM (24, 25).

The multidisciplinary nature of the FT program appeared to play a critical role in this transformation. By integrating physical therapies with emotional and creative modalities, the program provided participants with embodied experiences of validation and shared understanding. Group-based interventions, in particular, offered a social context in which pain was acknowledged and normalised, counteracting prior experiences of disbelief. Through this process, invisibility was partially mitigated, not by making pain visible in biomedical terms, but by rendering it socially recognised and experientially shared.

The findings suggest that acceptance facilitates behavioural change. physical and psychological self-care. These changes reflect a reappraisal of pain from a threatening, overwhelming force to a challenge that can be managed through adaptive strategies (35, 36). This cognitive shift aligns with theoretical models that emphasise appraisal's role in shaping coping responses (37).

The sociopolitical context in which the study took place adds an additional layer of interpretation. Participants lived under continuous security threats, a condition that may exacerbate uncertainty, hypervigilance, and somatic distress. Chronic exposure to existential threat could intensify the emotional burden of FM and complicate coping processes. At the same time, the structured and supportive nature of the FT program may have offered a rare space of stability and containment, amplifying its perceived impact. This context should be considered when interpreting both the depth of distress reported and the significance of the observed changes.

Beyond individual coping strategies, international research emphasises the importance of multidisciplinary and integrative treatment approaches for FM. Clinical guidelines and systematic reviews consistently recommend combining physical exercise, psychological support and education rather than relying on single-modality interventions (38). Studies of multidisciplinary programs across Europe and North America have demonstrated improvements in pain management, physical functioning, emotional regulation and self-efficacy (6, 7).

The present study contributes to this literature by providing qualitative insight into how patients experience such interventions from the inside. While many international studies focus on outcome measures, the current findings illustrate the experiential mechanisms underlying multidisciplinary care. Participants described how physical therapies supported bodily trust and movement confidence, while emotional and group-based components facilitated validation, normalisation, and shared meaning-making. These processes mirror findings from qualitative studies showing that group-based and mind-body interventions reduce isolation and enhance perceived legitimacy among individuals with FM (26).

The findings highlight how FM, as an invisible illness, challenges dominant biomedical and social understandings of disease. The participants' narratives demonstrate that acceptance is not solely an individual psychological process but is deeply shaped by social recognition, validation, and access to supportive interventions. By addressing both the embodied and relational dimensions of pain, the FT model helped participants reconstruct the meaning of illness and reclaim a sense of control and dignity.

Conclusions

Because FM symptoms are not outwardly visible and are commonly classified as invisible diseases that may intensify unpredictably, FFMPs frequently encounter doubt from both their social environment and healthcare providers. For this reason, it is vital to offer intervention programs to FFMPs, as such exposure has the potential to improve their overall quality of life, perspective, and self-understanding. Managing the disease represents a deliberate and potentially empowering choice. As such, engaging in coping strategies and embracing a long-term outlook can play a meaningful role in strengthening FFMPs' sense of self-worth and, consequently, their perceived value within their social circles.

The findings suggest that multidisciplinary treatment may offer meaningful benefits for women with fibromyalgia by addressing the complex interaction between physical symptoms, psychological distress, and functional impairment. These results support clinical models that move beyond single-modality interventions and underscore the importance of integrated care frameworks tailored to women lived experiences of chronic pain. However, several limitations should be noted. The study design limits causal inference, and reliance on self-reported outcomes may introduce reporting bias. The sample characteristics may restrict generalisability to men or to women receiving care in different healthcare settings. In addition, the absence of long-term follow-up prevents conclusions regarding the durability of treatment effects. These limitations indicate the need for longitudinal and comparative studies to further clarify mechanisms of change and to assess the sustainability of multidisciplinary interventions in fibromyalgia.

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