

THE ROLE AND RELEVANCE OF THE FELDENKRAIS METHOD IN CONTEMPORARY PHYSIOTHERAPY PRACTICE: A CROSS-SECTIONAL STUDY

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Abstract

Keywords

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Article History

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Copyright @Author Corresponding Author: * Ahad Hasan Introduction: Physiotherapy encompasses a diverse range of evidence-based approaches designed to enhance physical function and overall well-being through movement, motor control, and body awareness. Among these approaches, the Feldenkrais Method (FM) is recognized as an educational, somatic practice that facilitates experiential learning and improves self-awareness through mindful movement and focused attention. Despite its growing relevance in integrative rehabilitation, its recognition and implementation remain limited in many regions. Objectives: This study aimed to assess the current level of awareness and perception regarding the Feldenkrais Method among physiotherapists in Karachi, Pakistan. Additionally, it sought to evaluate their interest in receiving training and incorporating FM sessions into clinical practice.

Methods: A descriptive cross-sectional study was conducted across various tertiary care hospitals in Karachi. A total of 179 physiotherapists were recruited through convenience sampling. Data was collected using a self-structured questionnaire designed to assess knowledge, perceptions, and training interest in FM. Descriptive and inferential statistics were analyzed using SPSS Version 21.

Results: Findings revealed that 72.6% of respondents recognized FM as a movement-based therapeutic approach; however, only 31.8% demonstrated familiarity with its specific techniques. Younger physiotherapists (<30 years) exhibited moderate awareness, yet a substantial 73.7% expressed interest in attending formal training workshops. This indicates a promising trend toward increased adoption and integration of FM in clinical practice.

Conclusion: The study highlights moderate awareness of the Feldenkrais Method among physiotherapists in Karachi, accompanied by a strong inclination toward further education and training. To bridge existing knowledge gaps and enhance clinical application, professional development initiatives such as workshops, continuing education sessions, and seminars are recommended, particularly targeting early-career physiotherapists.

INTRODUCTION

Physical therapy is a well-established healthcare discipline grounded in evidence-based interventions aimed at enhancing movement, function, and overall quality of life. It encompasses a wide range of modalities including therapeutic exercise, manual therapy, movement re-education, injury prevention, fitness enhancement, and body awareness training. (Kapoor et al., 2022). These interventions are not only restorative but also preventive, targeting individuals across the lifespan-from pediatric to populations-with the objective geriatric of optimizing physical performance and mitigating secondary complications following injury, surgery, or chronic illness (Probst, 2017). Modern physiotherapy is rooted in principles that go beyond symptom management, placing equal emphasis on improving self-efficacy, psychosocial well-being, and patientcentered care. Rehabilitation programs are therefore designed to address functional limitations, promote mobility, and facilitate reintegration into daily activities following medical or surgical interventions (Hartley et al., 2023). Although regular physical activity is universally recognized as essential for health maintenance, barriers such as pain, disability, and comorbidities can hinder individuals from sustaining active lifestyles-particularly in populations with complex health needs (Cavallo et al., 2023). In response to such challenges, physiotherapists have increasingly incorporated integrative and neurosensory approaches to augment traditional rehabilitation strategies. Among these is the Feldenkrais Method (FM), an innovative somatic education system developed by Dr. Moshe Feldenkrais in the mid-20th century. Rooted in neuroscience and movement science, FM emphasizes the reorganization of neuromuscular patterns through guided, mindful movement (Alagappan et al., 2024). The Feldenkrais Method is structured around two core modalities: Awareness Through Movement (ATM) and Functional Integration (FI). ATM sessions are typically conducted in group settings, wherein a certified practitioner guides participants through verbal instructions designed to promote kinesthetic awareness and neuromuscular In contrast, coordination. FI sessions are individualized, involving gentle, hands-on facilitation to enhance proprioception and re-educate movement



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patterns (Posner, 2022). FM operates under key principles derived from both somatic learning and neuroplasticity, including:

1. Learning as a continuous process – Distinguishing organic (experiential) from academic (didactic) learning.

2. Posture as dynamic equilibrium – Emphasizing adaptability and balance over static alignment.

3. Exploratory vs. performative movement – Encouraging non-judgmental exploration over perfection.

4.Whole vs. part learning – Understanding that each movement engages the body as an integrated system.

5. Repetition with variation – Utilizing variability to foster novel motor strategies and resilience (Hesbach, 2024).

The foundation of the Feldenkrais Method lies in the concept of neuroplasticity, the brain's inherent capacity to reorganize itself in response to sensory input, learning, and experience. Research suggests that FM may facilitate adaptive changes in cortical and subcortical motor networks, particularly in individuals recovering from stroke, traumatic brain injury, or neurodegenerative diseases such as multiple sclerosis. By leveraging gentle, non-invasive movements, FM encourages individuals to explore sensorimotor possibilities and optimize functional capacity in a safe, non-threatening manner.

Physiotherapists utilizing FM report improvements in:

- Postural alignment and core stability
- Flexibility, balance, and proprioception
- Movement efficiency and coordination
- Pain modulation and neuromuscular relaxation

• Psychosomatic integration and emotional wellbeing (Hesbach, 2024).

FM is uniquely positioned as both a rehabilitative and performance-enhancement tool. Its benefits extend to:

• Chronic pain management, particularly for back and joint discomfort.

• **Post-operative recovery**, through facilitation of safe motor re-engagement.

• Scar tissue management, via low-load mobilization and sensory desensitization.

• Athletic performance, enhancing movement economy, agility, and proprioception.

FM can be integrated seamlessly with other physiotherapeutic techniques such as:

• Strength training, to develop muscle force and endurance.

• Flexibility training, for maintaining joint range of motion.

• Manual therapy, for addressing soft tissue restrictions and joint mobility

Despite its potential, FM remains underutilized in mainstream physiotherapy-often due to limited awareness, inadequate training, and time constraints within clinical practice. This gap presents a critical opportunity for educational and professional development (Schwab et al., 2023). The integration of FM aligns with the core tenets of evidence-based physiotherapy, which emphasizes the synthesis of best research evidence, clinical expertise, and patient values. However, widespread implementation is often impeded by practical barriers such as insufficient time, limited access to training, and perceived complexity of somatic practices (Zhang & He, 2024). Educating practitioners on methods like FM can empower them to design more individualized, precise, and effective treatment plans. Additionally, knowledge about enhancing patient such interventions encourages shared decision-making and increases engagement in their own recovery process (Alrowili et al., 2024). This paper aims to raise awareness among physiotherapists, particularly in Karachi and similar urban clinical settings, regarding the theoretical foundation and clinical applicability of the Feldenkrais Method. By introducing FM as a novel yet evidence-informed approach, the intent is to expand the therapeutic



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repertoire of practicing clinicians, improve patient outcomes, and promote innovation in physical therapy education and practice. By embracing such approaches and integrating them into routine physiotherapy, clinicians not only advance their professional expertise but also contribute to a more inclusive, responsive, and patient-aligned model of rehabilitation

Methodology

Study Design

This study employed an observational cross-sectional design to explore the awareness and perceptions of the Feldenkrais Method among practicing physiotherapists in Karachi, Pakistan. The focus was to assess familiarity with this somatic technique and determine the level of interest in future training opportunities.

Study Setting and Population

The study targeted licensed physiotherapists actively involved in clinical practice across various tertiary care hospitals and institutions in Karachi. Data was gathered from physiotherapy departments and outpatient settings where routine patient care is delivered. The following institutions contributed to the sample: Liaquat National Hospital (n=32), Aga University Hospital Khan (n=15), linnah Postgraduate Medical Centre (JPMC) (n=46), Indus University (n=7), South City Hospital (n=10), Bagai University (n=5), Ziauddin Hospital (n=21), Altamash Hospital (n=5), PNS Shifa Hospital (n=2), National Institute of Child Health (NICH) (n=2), OMI Hospital (n=4), Civil Hospital (n=1), Dow University of Health Sciences (DUHS) (n=2), Other institutions (n=27).

Sampling Technique

A convenience sampling strategy was adopted. A selfstructured questionnaire was developed specifically for this study to assess the level of awareness and understanding of the Feldenkrais Method among daily-practicing physiotherapists. Questionnaires were distributed both online (Google Forms) and as printed hard copies, based on participant preference and accessibility.



Sample Size

According to the Pakistan Physical Therapy Association (PPTA), the total number of registered physiotherapists in Pakistan is approximately 10,720, with 3,845 practicing in the province of Sindh. Based on the WHO sample size calculator, an ideal sample size of 545 was recommended. However, due to practical constraints and the exploratory nature of the study, 179 responses were successfully collected and included in the final analysis.

Inclusion Criteria

• Registered physiotherapists holding a 4-year BPT or 5-year DPT degree.

• Actively involved in clinical practice at the time of data collection.

Exclusion Criteria

• Physiotherapists exclusively working in academic or teaching roles and no longer engaged in clinical care were excluded.

Data collection was conducted using a pilot-tested, self-developed questionnaire that included closedended and perception-based items. The tool was designed to capture respondents' familiarity with FM, their sources of information, clinical experience with FM, and interest in receiving training.

Ethical Considerations

Prior to initiating the study, ethical approval was obtained from the relevant institutional research ethics committee. All participants provided written informed consent, and the study protocol, including potential risks and benefits, was clearly explained. Participant confidentiality and anonymity were strictly maintained throughout the research process.

Data Collection Procedure

Practicing physiotherapists were approached both inperson and online. The hybrid model allowed flexibility for participants, enhancing response rates. Each participant received a brief overview of the study objectives, followed by consent documentation. Only those who voluntarily agreed to participate were included.

Data Analysis

All data were coded, entered, and analyzed using IBM SPSS Statistics Version 21. Descriptive statistics were used to summarize demographic data and awareness levels, while inferential statistics were applied to assess associations where relevant

Results

A total of 179 physiotherapists participated in this study. The majority of respondents (87.7%) were aged 30 years or younger, indicating a predominantly young cohort. Of this group, 65 were male and 92 were female. Interestingly, all participants over the age of 30 (12.3%) were male, suggesting a gendered skew in the older demographic.

Demographic details

In terms of educational background, over half of the participants (50.8%) held a bachelor's degree, followed by 26.8% with a doctorate and 21.8% with a master's degree. Gender distribution was nearly equal across all qualification levels: among bachelor's degree holders, 45 were male and 46 female; among those with master's degrees, 20 were male and 19 female; and among doctorate holders, 22 were male and 26 female. This indicates a balanced academic representation within the sample.

Work experience was similarly reflective of a younger professional population. Most participants (82.1%) reported having five years or less of professional experience. Those with 6–10 years of experience comprised 10.6%, while only 7.3% had more than a decade of practice. Gender distribution remained fairly even across all experience levels.

Descriptive statistics revealed that the mean age of the participants was 27.26 years (range: 22–58), and the mean duration of professional experience was 3.9 years, with a wide standard deviation (4.86 years), indicating variability in clinical exposure among the respondents.

Awareness of the Feldenkrais Method

Participants' awareness of the Feldenkrais Method (FM) varied across the sample. A majority (72.6%) recognized it as a movement-based therapeutic approach. Notably, this awareness was significantly associated with age (p = 0.040), with older physiotherapists (>30 years) demonstrating greater

recognition compared to their younger counterparts. However, deeper knowledge of FM techniques such as Awareness Through Movement (ATM) and Functional Integration (FI) was limited—only 31.8% reported familiarity with both techniques, while 45.8% admitted to having no knowledge of either. Though educational qualification and clinical experience appeared to correlate with increased awareness, these associations were not statistically significant.

In terms of perceived implementation style, 50.3% of participants believed that FM typically involves selfdirected movement rather than passive manipulation. This perception did not significantly differ by age, qualification, or experience, suggesting a relatively uniform understanding of FM's practical applications across the sample.

Perceptions of Feldenkrais Benefits

When asked about the potential benefits of FM, participants most commonly cited enhanced movement (41.9%) and improved balance (36.3%). Only a minority (10.6%) recognized its role in pain management. These perceptions were consistent across age groups, educational backgrounds, and experience levels, with no statistically significant differences observed (p = 0.228). Regarding the method's potential to influence neuroplasticity and movement capabilities, 60.9% of improve participants agreed with this proposition, while 35.8% were unsure and 3.4% disagreed. Again, this belief was evenly distributed across demographic and professional subgroups (p = 0.941), suggesting broad consensus about the neurological relevance of FM, albeit with some uncertainty.

Interest in Training and Workshops

Interest in receiving formal training or attending workshops on the Feldenkrais Method was high among participants. Approximately 73.7% expressed willingness to participate in FM training sessions, while 20.7% were unsure, and only 5.6% were not interested. Interestingly, this enthusiasm for training was consistent across age, qualification, and experience groups, with no significant associations found (p = 0.749). However, slightly higher interest levels were noted among younger participants and those early in their careers, hinting at a growing



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curiosity among the new generation of physiotherapists to explore innovative therapeutic modalities.

This study revealed moderate awareness of the Feldenkrais Method among physiotherapists in Karachi, with knowledge increasing with age and clinical experience, though still not widely comprehensive. Perceptions of its benefits, particularly regarding movement enhancement and neuroplasticity, were generally favorable. Most notably, there was substantial interest in formal training across all groups, highlighting the method's emerging appeal and the need for structured educational opportunities in this area.

Discussion

This questionnaire-based survey assessed the awareness, perception, and training interest in the Feldenkrais Method (FM) among physiotherapy professionals in Karachi, Pakistan. The findings indicate that younger physiotherapists (<30 years) with five or fewer years of clinical experience generally demonstrated limited awareness of FM techniques, including Awareness Through Movement (ATM) and Functional Integration (FI). contrast, older and more experienced In physiotherapists (>30 years, >5 years of experience) exhibited a higher level of familiarity and understanding of the method. Notably, a significant proportion of participants (73.7%) expressed interest in receiving formal training in the Feldenkrais Method. This interest was particularly evident among early-career professionals aged 25-34, suggesting a growing curiosity and potential openness to incorporating FM into their continuing professional development. These findings highlight the need for structured educational initiatives, workshops, and professional seminars to bridge the current knowledge gap and support the integration of innovative movement-based therapies like FM within mainstream physiotherapy practice.

Conclusion and Recommendations

This study highlights a moderate level of awareness of the Feldenkrais Method (FM) among physiotherapists practicing in Karachi, Pakistan. While the overall familiarity with specific techniques such as Awareness through Movement (ATM) and

Functional Integration (FI) was limited, a notable level of interest and openness to learning and implementing the method was observed across participants. Interestingly, no statistically significant associations were found between awareness levels and demographic variables such as age, academic qualification, or clinical experience. Participants widely recognized the therapeutic potential of FM in enhancing body awareness, balance, neuroplasticity, and movement quality, suggesting a growing interest in innovative, body-centered approaches within physiotherapy. These findings underscore the emerging relevance of FM as a complementary therapeutic tool in the evolving landscape of rehabilitation practice in Pakistan. Given the promising interest, it is recommended that largerscale studies be conducted across diverse regions of Pakistan to validate and extend these findings. Longitudinal and qualitative research designs be employed to explore barriers, perceptions, and outcomes related to FM practice and training. Integration of FM into professional development programs, including curricula, hands-on workshops, and awareness seminars, be actively pursued to facilitate its adoption into mainstream clinical settings. By investing in structured education and dissemination strategies, the Feldenkrais Method can become a valuable addition to the physiotherapy repertoire, promoting more holistic, patient-centered care and contributing to improved outcomes in movement rehabilitation and neurophysiological health.

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