Clinical Practice Guideline: **Feldenkrais Method**

Date of Implementation: **February 9, 2006**

Product: **Specialty**

GUIDELINES

American Specialty Health – Specialty (ASH) considers Feldenkrais Method (FM) as medically necessary as a form of movement/exercise within a multi-component rehabilitative program.

DESCRIPTION/BACKGROUND

The Feldenkrais Method (FM) is a form of education that uses gentle movements and directed attention to improve movement and enhance human functioning. It is said to be based on principles of physics, biomechanics, and an understanding of learning and human development.

Based on the work of Dr. Moshe Feldenkrais, an Israeli physicist and judo practitioner, the method is expressed primarily in two formats. Practitioners generally receive more than 800 hours of formal training over a course of four years.

Functional Integration® (FI) is a hands-on form of tactile, kinesthetic communication between a practitioner and student. The practitioner communicates to the student how he/she organizes his/her movements. Through precise touch and movement, the student learns how to move with less effort and strain. Lessons may be very specific in addressing particular issues brought by the student or can be more global in scope.

Awareness Through Movement® (ATM) lessons are verbally directed movement sequences given primarily in a group setting, though they can also be given to individuals. There are more than a thousand distinct ATM lessons in existence. Lessons are generally organized around a particular function, and each practitioner lends their particular style to each lesson.

According to practitioners, use of this method can increase range of motion, flexibility, and coordination.

EVIDENCE REVIEW

Although an increasing amount of research involving the FM has been performed, only a small body of empirical research has documented its efficacy. Because FM has such a wide range of effects, a wide range of outcomes has been evaluated and reported. Many of the clinical studies have involved small numbers of subjects (6 or fewer). The outcome studies

may be categorized into the following four general themes: pain management, functional performance and motor control, psychological effects, and quality of life.

Laumer et al. (1997) studied the therapeutic effects of the FM Awareness Through Movement lesson with eating disorder patients. Fifteen patients with eating disorders rated various aspects of their eating disorder before and after participating in a 9-hour course of FM. The data collected was compared to a control group, also consisting of 15 patients with eating disorders who did not participate in an FM course. FM course participants showed increased contentment with problem zones of their body as well as increased acceptance and familiarity with their own body. Other results were a more spontaneous, open, and self-confident behavior, decreased feelings of helplessness, and decreased wish to return to the security of the early childhood, which indicates a general process of maturation of the whole personality. The outcome points toward the therapeutic effectiveness of FM with eating-disorder patients within a multimodal treatment program.

Another study (James et al., 1998) investigated the effects of FM on hamstring length. Forty-eight (health undergraduate) participants were randomly allocated into either FM, relaxation, or control groups. All subjects had their right hamstring measured using a modified active knee extension test prior to the first session, prior to the fourth (final) session, and after the final session of intervention. Two-way analysis of variance with time of measurement repeated revealed no significant differences between the groups. The findings are discussed in relation to apparent ineffectiveness of the Feldenkrais Awareness Through Movement lessons used on hamstring length, exposure time to the technique, and attitudes toward FM.

A randomized controlled trial (Lundblad et al., 1999) investigated whether physiotherapy or Feldenkrais interventions resulted in a reduction of complaints from the neck and shoulders (prevalence, pain intensity, sick leave, and disability in leisure and work roles) in 97 female industrial workers (not on long-term sick leave). The workers were randomized to (1) physiotherapy group, (2) Feldenkrais group, or (3) control group. Pre- and post-tests were made at one-year intervals. The two interventions lasted 16 weeks during paid working time. The Feldenkrais group showed significant decreases in complaints from neck and shoulders and in disability during leisure time. The two other groups showed no change (physiotherapy group) or worsening of complaints (control group). This study showed significant positive changes in complaints after the Feldenkrais intervention but not after the physiotherapy intervention.

The effects of a Feldenkrais Awareness Through Movement program and relaxation procedures were assessed on a volunteer sample of 54 undergraduate physiotherapy students over a 2-week period (Kolt et al., 2000). Participants were randomly allocated into an FM group, a relaxation group, or a no- treatment (control) group, and state of anxiety was measured using the Composed-Anxious scale of the Profile of Mood States-Bipolar

Form (Lorr and McNair, 1982) on 4 occasions. Analysis of variance showed that anxiety scores for all groups varied significantly over time and that participants reported lower scores at the completion of the fourth intervention. Compared to the control group, females in the FM and relaxation groups reported significantly lower anxiety scores on completion of the fourth session (compared to immediately prior to the fourth session), and this reduction was maintained one day later. These findings can be interpreted as preliminary evidence of the efficacy of FM and relaxation procedures in reducing anxiety.

Hopper et al. (1999) investigated the effects of FM on flexibility, perceived exertion, and hamstring length. In Study 1, 79 healthy participants undertook measurement of flexibility, perceived exertion, and hamstring length prior to being randomly allocated into a Feldenkrais or control group with the same measurements taken after the group intervention (Feldenkrais Awareness Through Movement lesson or control procedure). Although the Feldenkrais participants improved significantly more in sit and reach measurements than their control counterparts, no differences between the groups were found for measures of perceived exertion or hamstring length. In Study 2, a subsample of 39 participants took part in further three-intervention sessions with the three measures being taken again prior to and after the fourth (final) intervention. No group differences were found for any of the outcome indicators across time. Ullmann et al. (2010) examined the effects of Feldenkrais exercises on balance, mobility, balance confidence, and gait performance in community-dwelling adults aged 65 and older. After completion of the program, balance and mobility increased while fear of falling ($p = 0.042$) decreased significantly for the FG group and not the control group. No other significant changes were observed. However, participants of the FG group showed improvements in balance confidence and mobility while performing concurrently a cognitive task. Authors concluded that Feldenkrais exercises are an effective way to improve balance and mobility, and thus offer an alternative method to help offset age-related declines in mobility and reduce the risk of falling among community-dwelling older adults. Connors et al. (2011) investigated the effects of Feldenkrais Method balance classes on balance and mobility in older adults. Compared to the Control group, the Intervention group made a significant improvement in their ABC score, gait speed ($P = .017$) and FSST time ($P = .022$). These findings suggest that Feldenkrais Method balance classes may improve mobility and balance in older adults. Teixeira-Machado et al. (2015) assessed changes in QoL and depression in older adults with PD through use of Feldenkrais method-based exercise. The treatment group underwent 50 sessions of an exercise program based on the Feldenkrais method. The control group received educational lectures during this period. After the exercises based on the Feldenkrais method, the treatment group showed improvement in QoL scores as well as a reduction in the level of depression compared with the control group. Authors suggested that it is likely that the practice of a program based on the Feldenkrais method can contribute greatly to the QoL of patients with PD.

Hillier and Worley (2015) completed a systematic review on the effectiveness of the Feldenkrais method and for which populations. Twenty RCTs were included (an additional 14 to an earlier systematic review). The population, outcome, and findings were highly heterogeneous. However, meta-analyses were able to be performed with 7 studies, finding in favor of the FM for improving balance in aging populations via the timed up and go and functional reach tests. Single studies reported significant positive effects for reduced perceived effort and increased comfort, body image perception, and dexterity. Risk of bias was high; thus, caution should be taken with in interpretation. Authors suggest that the effects are generic and not disease-based, according to the literature. According to the body of evidence, clinicians and professionals may promote the use of FM in populations interested in efficient physical performance and self-efficacy. Palmer (2017) assessed Feldenkrais Moving Forward movement lessons for older adults. Participants (N = 87 returning from original sample of 124; median age = 76 years) were assigned to movement (n = 51) or waitlist control (n = 36) groups. Pretests and posttests included Base of Support, Timed Up and Go, Tandem Stance, Functional Reach, modified OPTIMAL, and questions about individual priorities and outcomes. Results included significant correlations between lessons attended and both improved Functional Reach and improved OPTIMAL score. A significantly higher proportion of the movement (vs. control) group reported positive changes at the posttest in both prioritized and newly identified activities. Palmer concluded that results show that Feldenkrais lessons are helpful to older adults for promoting balance, mobility, and confidence.

Paolucci et al. (2017) sought to determine the efficacy of the Feldenkrais method for relieving pain in patients with chronic low back pain (CLBP) and the improvement of interoceptive awareness. Fifty-three patients with a diagnosis of CLBP for at least 3 months were randomly allocated to the Feldenkrais (mean age 61.21 ± 11.53 years) or Back School group (mean age 60.70 ± 11.72 years). Pain was assessed using the visual analog scale (VAS) and McGill Pain Questionnaire (MPQ), disability was evaluated with the Waddel Disability Index, quality of life was measured with the Short Form-36 Health Survey (SF-36), and mind-body interactions were studied using the Multidimensional Assessment of Interoceptive Awareness Questionnaire (MAIA). Authors concluded that the Feldenkrais method has comparable efficacy as Back School in CLBP. The two rehabilitation approaches are equally as effective in improving interoceptive awareness, which helps with pain management. Paolucci et al. (2018) highlights the evidence supporting the different rehabilitative techniques described for low back pain management. In total, 26 studies were found suitable to be included in the review (14 articles about Pilates, 6 about McKenzie (MK), 1 article about Feldenkrais, 3 about Global Postural Rehabilitation (GPR) and 2 about Proprioceptive Neuromuscular Facilitation). Authors concluded that all the techniques are effective for the study groups with respect to the control groups in reducing pain and disability and improving the QoL and maintaining benefits at follow-up; Pilates, Back School, MK, and Feldenkrais methods reduce pain and are more efficient than a pharmacological or instrumental approach in reducing disability and improving all

psychological aspects also. GPR shows long lasting results for the last outcome. To date, it is difficult to affirm the superiority of one approach over another. Authors suggested that further high-quality research is needed to confirm the effect of these techniques, together with the use of more appropriate evaluation measures.

Phuphanich et al. (2020) suggest that The Feldenkrais Method has broad applications for changing bodily perceptions; easing function; and promoting awareness, self-efficacy, and health. Yet, there is a paucity of scientific evidence validating the benefits of Feldenkrais. Authors conclude that at this time, clinicians may only offer Feldenkrais as a supplementary therapy to patients interested in efficient physical performance and self-efficacy. Ahmadi et al. (2020) investigated the effect of the Feldenkrais method versus core stability exercises on pain, disability, quality of life and interoceptive awareness in patients with chronic non-specific low back pain. Sixty patients with chronic non-specific low back pain randomized equally into the Feldenkrais method versus core stability exercises groups. The intervention group received Feldenkrais method consisting of training theoretical content and supervised exercise therapy two sessions per week for five weeks. The control group received educational program and home-based core stability exercises for five weeks. Regarding outcomes, all patients were examined by World Health Organization's Quality of life Questionnaire, McGill Pain Questionnaire, Oswestry Disability Questionnaire and Multidimensional Assessment of Interoceptive Awareness Questionnaire. All outcomes were measured at baseline and the end of the intervention. Results demonstrated statistically significant differences between groups for quality of life, interoceptive awareness and disability in favor of the Feldenkrais method. McGill pain score significantly decreased in both the Feldenkrais (from 15.33 to 3.63) and control groups (from 13.17 to 4.17), but there were no between-groups differences ($P = 0.16$). Authors concluded that the Feldenkrais method intervention gave increased benefits in improving quality of life, improving interoceptive awareness and reducing disability index.

Berland et al. (2022) identify the populations and conditions for which the FM can be used in physiotherapy and to determine the intervention modalities in a systematic review. Meta-analyses (MA) were performed whenever populations and outcome measures were comparable in at least two studies. Sixteen studies were included. In older adults (three of the four selected trials), the FM group significantly improved gait, balance, mobility and quality of life. The MA showed significant differences between interventions in the Timed-Up-and-Go test. FM significantly improved pain, functional balance, and perceived exertion in three trials performed on subjects with cervical, dorsal, or shoulder pain. FM demonstrated improvements in pain, disability, quality of life and interoceptive awareness in the three trials performed in subjects with chronic low back pain. In multiple sclerosis, an improvement in functional capacity was observed in the two selected studies. The MA showed no significant differences between groups in the Function and Control dimensions of the Multiple Sclerosis Self-Efficacy Scale. In Parkinson's disease, two studies showed significant effects on quality of life and functional tests. In conclusion, evidence shows that

FM has therapeutic effects comparable to other physiotherapy techniques in patients with spine pain. In addition, improvements in mobility and balance were seen in the elderly and people with neurodegenerative diseases.

Giorgi et al. (2023) aimed at exploring the effectiveness of the Feldenkrais Method® as a form of awareness through movement (ATM) for fibromyalgia syndrome (FM), measuring the effect by means of multi-dimensional questionnaires, administered at baseline and after 4 months of ATM activity. One hundred twenty-eight FM patients (mean age 54 years old, 2% males) participated in the study. A statistically significant improvement was found in FM-specific measures (Polysymptomatic Distress Scale, PDS) and the Pain Catastrophization Scale (PCS). The Revised Fibromyalgia Impact Questionnaire (FIQR) showed a trend in improvement after the intervention, although this improvement was not statistically significant. The logistic regression analysis found a correlation between PDS, fatigue and anxiety measures; PCS, years from diagnosis and anxiety. Authors concluded that ATM could improve FM-specific measures and pain-related catastrophizing.

PRACTITIONER SCOPE AND TRAINING

Practitioners should practice only in the areas in which they are competent based on their education, training, and experience. Levels of education, experience, and proficiency may vary among individual practitioners. It is ethically and legally incumbent on a practitioner to determine where they have the knowledge and skills necessary to perform such services and whether the services are within their scope of practice.

It is best practice for the practitioner to appropriately render services to a member only if they are trained, equally skilled, and adequately competent to deliver a service compared to others trained to perform the same procedure. If the service would be most competently delivered by another health care practitioner who has more skill and training, it would be best practice to refer the member to the more expert practitioner.

Best practice can be defined as a clinical, scientific, or professional technique, method, or process that is typically evidence-based and consensus driven and is recognized by a majority of professionals in a particular field as more effective at delivering a particular outcome than any other practice (Joint Commission International Accreditation Standards for Hospitals, 2020).

Depending on the practitioner's scope of practice, training, and experience, a member's condition and/or symptoms during examination or the course of treatment may indicate the need for referral to another practitioner or even emergency care. In such cases it is prudent for the practitioner to refer the member for appropriate co-management (e.g., to their primary care physician) or if immediate emergency care is warranted, to contact 911 as appropriate. See the *Managing Medical Emergencies (CPG 159 – S)* clinical practice guideline for information.

References

Ahmadi, H., Adib, H., Selk-Ghaffari, M., Shafizad, M., Moradi, S., Madani, Z., Partovi, G., & Mahmoodi, A. (2020). Comparison of the effects of the Feldenkrais method versus core stability exercise in the management of chronic low back pain: a randomised control trial. Clinical Rehabilitation, 34(12), 1449–1457. https://doi.org/10.1177/0269215520947069

Berland R, Marques-Sule E, Marín-Mateo JL, Moreno-Segura N, López-Ridaura A, Sentandreu-Mañó T. Effects of the Feldenkrais Method as a Physiotherapy Tool: A Systematic Review and Meta-Analysis of Randomized Controlled Trials. Int J Environ Res Public Health. 2022;19(21):13734. Published 2022 Oct 22. doi:10.3390/ijerph192113734

Connors, K. A., Galea, M. P., & Said, C. M. (2011). Feldenkrais Method Balance Classes Improve Balance in Older Adults: A Controlled Trial. Evidence-Based Complementary and Alternative Medicine, Vol. 2011, 1-9. Doi:10.1093/ecam/nep055

Connors, K. A., Galea, M. P., Said, C. M., & Remedios, L.J. (2010). Feldenkrais Method balance classes are based on principles of motor learning and postural control retraining: a qualitative research study. Physiotherapy, 96(4), 324-36. doi: 10.1016/j.physio.2010.01.004

Feldenkrais Education Foundation of North America (FEFNA). Learn about the method. Retrieved June 20, 2024 from http://www.feldenkrais.com/

Giorgi V, Farah S, Salaffi F, Butera G, Sarzi-Puttini P. Feldenkrais awareness though movement intervention for fibromyalgia syndrome: A proof-of-concept study. J Bodyw Mov Ther. 2023;36:320-326. doi:10.1016/j.jbmt.2023.08.001

Hillier, S., & Worley, A. (2015). The effectiveness of the Feldenkrais method: a systematic review of the evidence. Evidence-based complementary and alternative medicine: eCAM, *2015*, 752160. https://doi.org/10.1155/2015/752160

Hopper, C., Kolt, G. S., & McConville, J. C. (1999). The effects of Feldenkrais awareness through movement on hamstring length, flexibility, and perceived exertion. Journal of Bodywork & Movement Therapy, 3(4), 238-247

James, M., Kolt, G. S., McConville, J., & Bate, P. (1998). The effects of a Feldenkrais program and relaxation procedures on hamstring length. Australian Journal of Physiotherapy, 44(1), 49-54.

Kolt, G. S., & McConville, J. C. (2000). The effects of a Feldenkrais Awareness Through Movement program on state anxiety. Journal of Bodywork & Movement Therapies, 4(3), 216-220

Laumer, U., Bauer, M., Fichter, M., & Milz, H. (1997). Therapeutic effects of the Felenkrais method "awareness through movement" in patients with eating disorders [German]. Psychotherapie, Psychosomatik, Medizinische Psychologie, 47(5), 170-180

Lorr, M., McNair, D. M., & Fisher, S. U. (1982). Evidence for bipolar mood states. Journal of personality assessment, 46(4), 432–436. https://doi.org/10.1207/s15327752jpa4604_16

Lundblad, I., Elert, J., & Gerdle, B. (1999). Randomized controlled trial of physiotherapy and Feldenkrais interventions in female workers with neck-shoulder complaints. Journal of Occupational Rehabilitation, 9(3), 179-194

Palmer C. F. (2017). Feldenkrais Movement Lessons Improve Older Adults' Awareness, Comfort, and Function. Gerontology & Geriatric Medicine, *3*, 2333721417724014. https://doi.org/10.1177/2333721417724014

Paolucci, T., Attanasi, C., Cecchini, W., Marazzi, A., Capobianco, S. V., & Santilli, V. (2018). Chronic low back pain and postural rehabilitation exercise: a literature review. Journal of Pain Research, 12, 95–107. https://doi.org/10.2147/JPR.S171729

Paolucci, T., Zangrando, F., Iosa, M., De Angelis, S., Marzoli, C., Piccinini, G., & Saraceni, V. M. (2017). Improved interoceptive awareness in chronic low back pain: a comparison of Back school versus Feldenkrais method. Disability and rehabilitation, 39(10), 994–1001. https://doi.org/10.1080/09638288.2016.1175035

Phuphanich, M. E., Droessler, J., Altman, L., & Eapen, B. C. (2020). Movement-Based Therapies in Rehabilitation. Physical medicine and rehabilitation clinics of North America, 31(4), 577–591. https://doi.org/10.1016/j.pmr.2020.07.002

Teixeira-Machado, L., Araújo, F. M., Cunha, F. A., Menezes, M., Menezes, T., & Melo DeSantana, J. (2015). Feldenkrais method-based exercise improves quality of life in individuals with Parkinson's disease: a controlled, randomized clinical trial. Alternative Therapies in Health and Medicine, *21*(1), 8–14

Ullmann, G., Williams, H. G., Hussey, J., Durstine, J. L., & McClenaghan, B. A. (2010). Effects of Feldenkrais exercises on balance, mobility, balance confidence, and gait performance in community-dwelling adults age 65 and older. Journal of Alternative Complementary Medicine, 16(1), 97-105