

## Relevant Evidence Based Research on the Feldenkrais Method

**Learning to Improve Mobility and Quality of Life in a Well Elderly Population: The Benefits of Awareness Through Movement.** Feldenkrais Research Journal. 2, 17. 2005. Stephens, PhD, PT, CFP; J., Pendergast, BA, MPT; C., Roller, BA, BA, MPT, B.A.; & Weiskittel, BS, MPT R. S.

Objectives: This study tested the hypothesis that an alternative movement learning method, *Awareness Through Movement*, would produce improvements in coordination, mobility, economy of movement and quality of life in older adults.

Methods: A group of 31 older adults was studied using a prospective, repeated measures control group design. The SF-36 was used to assess health status – quality of life. Video motion analysis was used to collect data on walking and on a floor to stand transfer movement.

Results: Coordination of the transfer movement improved significantly in the experimental group. Vitality and mental health scores also improved significantly in this group. Interesting differences between young-old and old-old changes were observed.

Conclusions: *Awareness Through Movement* may be an additional effective method for pursuing the objectives of healthy people.

**Feldenkrais Method balance classes are based on principles of motor learning and postural control retraining: a qualitative study.** Physiotherapy Dec 2010, Connors K, Galea M, Said, C, Remdios L.

Background: Feldenkrais Method® balance classes have been found to be effective in improving balance in recent studies, but there has been little research into possible mechanisms behind the effectiveness of these classes. Indeed there has been little research into the content of any balance training classes.

Objectives: The purpose of this study was to analyze the content of a series of Feldenkrais Method balance classes to gain an understanding of how the results in these studies may have been achieved and the principles through which it may be effective.

Design: A qualitative research approach (content analysis) was used. Key findings were the extensive involvement of trunk flexibility and control in the balance activities and also the intensive attention to internal feedback, which was linked to body awareness training.

Conclusion: The Feldenkrais Awareness Through Movement lessons contained many elements consistent with current theories of motor skill acquisition and postural control, providing a sound theoretical basis for the effectiveness of the Feldenkrais approach in improving balance.

**Effects of Feldenkrais Exercises on balance, mobility, balance confidence and gait performance in community-dwelling adults age 65 and older.** Journal of Complementary and Alternative Therapies, 16: 97-105, 2010, Ullmann G, Williams H, Hussey J, Durstine J, McClenaghan B.

Objective: The purpose of this study was to examine effects of Feldenkrais exercises in improving balance, mobility, and balance confidence in older adults.

Methods: Participants (N = 47, mean age 75.6) were randomly assigned to a Feldenkrais group (FG, n = 25) or to a control group (CG, n = 22).

Results: After completion of the program, balance (p = 0.030) and mobility (p = 0.042) increased while fear of falling (p = 0.042) decreased significantly for the FG group. Participants of the FG group showed improvements in balance confidence (p = 0.054) and mobility while performing concurrently a cognitive task (p = 0.067).

Conclusions: These results indicate 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.

**Getting Grounded Gracefully: effectiveness and acceptability of Feldenkrais in improving balance.** Journal of Aging and Physical Activity 17(1): 57-76, 2009; Vrantsidis F, Hill K, Mooree K, Webb R, Hunt S, Dowson L.

The Getting Grounded Gracefully program, based on the Awareness Through Movement lessons of the Feldenkrais Method, was designed to improve balance and function in older people. Fifty-five participants (mean age 75, 85% female) were randomized to the intervention (twice weekly group classes over 8 weeks) or the control group (continued with their usual activity). Significant improvement was identified for the intervention group relative to the control group for the Modified Falls Efficacy Scale score ( $p = 0.003$ ) and gait speed ( $p = 0.028$ ), and a strong trend evident in the Timed Up and Go ( $p = 0.056$ ). High-class attendance (88%) and survey feedback indicate that the program was viewed positively by participants and may therefore be acceptable to other older people.

**Feldenkrais Method balance classes improve balance in older adults: a controlled trial.**

Evidence Based Complementary and Alternative Medicine Advance access published online 24 June 2009. Connors K, Galea M, Said C.

Objective: To investigate the effects of Feldenkrais Method balance classes on balance and mobility in older adults.

Design: Prospective non-randomized controlled study with pre/post measures. Participants: Convenience sample of 26 community-dwelling older adults (median age 75 years) attending Feldenkrais Method balance classes formed the Intervention group. Thirty-seven volunteers were recruited for the Control group (median age 76.5 years.)

Results: At re-testing, the Intervention group showed significant improvement on all of the measures (ABC,  $p=0.016$ , 4SST,  $p=0.001$ , gait speed,  $p<0.001$ ). The Control group improved significantly on one measure (4SST,  $p<0.001$ ). Compared to the Control group, the Intervention group made a significant improvement in their ABC score ( $p=0.005$ ), gait speed ( $p=0.017$ ) and 4SST time ( $p=0.022$ ).

Conclusions: These findings suggest that Feldenkrais Method balance classes may improve mobility and balance in older adults.

**Study of the effects of various forms of exercise on balance in older women.** Unpublished Manuscript Healthway Starter Grant, File #7672, Dept of Rehabilitation, Sir Charles Gardner Hospital, Nedlands, Western Australia, 1999. Hall SE, Criddle A, Ring A, Bladen C, Tapper J, Yin R, Cosgrove A, Hu Yu-Li.

Abstract: People over the age of 65 account for 4% of all hospital admissions due to injuries sustained from falls. Frequency of falling increases with age. Exercise has been shown to have a positive effect on reducing the number of falls. This study compared the effects of Feldenkrais Method and Tai Chi to a no exercise control group on balance and mobility in a group of 59 randomly assigned, elderly women. Both TC and FM showed improvements in measures of quality of life, balance control, walking and activities of daily living compared to the control group.

**Effects of Feldenkrais Awareness Through Movement on Balance in Adults With Chronic Neurological Deficits Following Stroke: A Preliminary Study.** Complementary Health Practice Review, Vol. 10 No. 3, October 2005 203-210 DOI: 10.1177/1533210105285516 ©2005 Sage Publications. Peer Reviewed. Batson G and Deutsch J.

The Feldenkrais Method is a complementary approach to motor learning that purports to induce change in chronic motor behaviors. This preliminary study describes the effects of a Feldenkrais program on balance and quality of life in individuals with chronic neurological deficits following stroke. Two male (48 and 53 years old) and 2 female participants (61 and 62 years old), 1 to 2.5 years post-stroke, participated as a group in a 6-week Feldenkrais program. Pretest and posttest

evaluations of the Berg Balance Scale (BBS), the Dynamic Gait Index (DGI), and the Stroke Impact Scale (SIS) were administered. Data were analyzed using a Wilcoxon signed-rank test. DGI and BBS scores improved an average of 55.2% ( $p = .033$ ) and 11% ( $p = .034$ ), respectively. SIS percentage recovery improved 35%. Findings suggest that gains in functional mobility are possible for individuals with chronic stroke using Feldenkrais movement therapy in a group setting. Keywords: Feldenkrais; balance; stroke; complementary medicine. Instrumentation: Movement Imagery Questionnaire (MIQ) (Hall and Pongrac), Dynamic Gait Index (DGI) (Wrisley et al), Berg Balance Scale, Stroke Impact Scale (SIS), Mini-Mental Status Examination (MMSE) (Folstein et al)

**The Effects of Six Week of *Feldenkrais Method* on Selected Functional Parameters in a Subject with Rheumatoid Arthritis.** Physical Therapy 72: (suppl.) S86,1992. Narula, M., Jackson, O., Kulig, K.

Effect of Six Weeks of *Awareness Through Movement* Lessons on Selected Functional Movements Parameters in Individuals with Rheumatoid Arthritis (A Pilot Study Using Single Subject Case Study Design). Thesis submitted in partial fulfillment of the requirements for the degree of Masters of Science in Exercise Science, Oakland University, Rochester, MI: 1993. Narula, M.

In a study done with twenty-one subjects with RA who engaged in a series of *Feldenkrais* exercises, results showed a significant positive change in both the muscle activity and the perceived effort of the studied tasks. Two years after the study ended, a follow-up was done and a large percentage of subjects reported experiencing improved mobility

**Sit on the Floor, Now Get Up.** European Journal of Preventive Cardiology. November 1, 2012. Claudio Gil Araújo, Ph.D.,

How quickly and easily you can sit down on the floor and then get up may give you a hint about how long you'll live. A study from Brazil published in the November 1, 2012. *European Journal of Preventive Cardiology* looked at how adept some 2,002 men and women ages 51 to 80 were at performing these moves. We know that aerobic fitness correlates with a longer life span, but this study suggests that flexibility, muscle strength, balance and co-ordination are also important factors in determining longevity. Study leader Claudio Gil Araújo, Ph.D., explained that "if a middle-aged or older man or woman can sit and rise from the floor using just one hand - or even better without the help of a hand - they are not only in the higher quartile of musculoskeletal fitness but their survival prognosis is probably better than that of those unable to do so." The study showed that each additional support needed to sit down on the floor and then get up - hand, forearm, knee, side of leg, or hand on the knee - was associated with a 21 percent lower chance of survival over the approximately six years of the study's follow-up.