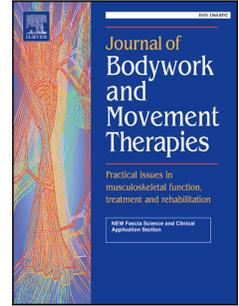


# Accepted Manuscript

Letter to Editor: Application of neuroplasticity theory through the use of the Feldenkrais Method with a runner with scoliosis and lower quarter pain: Additional respiratory mechanic principle, implication of the Feldenkrais method for clinical practice in neuro-musculoskeletal rehabilitation

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**Letter to Editor: Application of neuroplasticity theory through the use of the Feldenkrais Method with a runner with scoliosis and lower quarter pain: Additional respiratory mechanic principle, implication of the Feldenkrais method for clinical practice in neuro-musculoskeletal rehabilitation.**

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Dear Editor,

We read with much interest the paper titled “Application of neuroplasticity theory through the use of the Feldenkrais Method with a runner with scoliosis and hip and lumbar pain: A case report” by LK Myers, 2016. This is an interesting case study that highlight the importance of the neuroplasticity theory for the Feldenkrais Method (FM) on musculoskeletal condition (Myers, 2016). This case study reveals that the FM method could be regarded as an alternate therapy in musculoskeletal rehabilitation (Henry et al., 2016). Regarding to the findings and the outcome measure used in this case study, we would like to share some points of our opinions, which could be applicable in clinical practice.

Scoliosis can affect pulmonary function and one of the reasons is its association with back pain (Tsiligiannis  Grivas, 2012). It is known that the diaphragm has close affinity with the lumbar region  is proposed to alter the  breathing pattern in pathological states (Hagins and Lamberg, 2011; Nelson and Beach, 2012) In this context, scoliosis and other musculoskeletal disorders that compromise respiration, may also result in altered breathing patterns. In addition, pain which is considered as one of the preliminary clinical symptoms for any disorders also alters the breathing pattern (Perri and Halford, 2004).

One of the outcomes noticed in the present case study included alteration in the quality of the client’s breathing and it has been observed that the breath is being related to fluid movement through the application of neuroplasticity theory (Myers, 2016). Since, breathing component is considered as one of the education method in FM, considering respiratory assessment as one of the clinical tools could be of interest in scoliosis and spinal pain. The outcome of meaningful improvement in pain intensity observed in this present case study also inferred to have a normal breathing pattern (Myers, 2016).

Hence, we would like to propose that the FM of education related to the neuroplasticity theory through respiratory mechanics principles for efficient use of the neuro-musculoskeletal system can be an important component to be achieved in this method of treatment (Lyttle, 1997). This could be achieved through making the peoples aware of their breathing pattern on either side of the chest through the application of neuroplasticity in which brain becomes aware of using symmetrical breathing pattern.

It is known that FM has a broad range of applications and the practitioners struggle to identify suitable measurement tools (Connors et al., 2011). Therefore, we would like to propose that future studies on musculoskeletal assessment may include respiratory assessment as one of the outcome measures for clinical application of the FM as the education method which could offer potential keys of success in neuro-musculoskeletal rehabilitation.

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