

THE ADDITIONAL BENEFITS OF APPLYING FASCIAL MANIPULATION® STECCO METHOD IN PAEDIATRIC NEUROLOGICAL PHYSIOTHERAPY

Background

Alterations in fascial structures have an important role in hyper-resistance in neurological patients. The non-neural part is related to mechanical muscle properties: shortening, viscosity and elasticity changes impacting active and passive movement, range of motion (ROM) and proprioception. Viscosity changes occur between the layers of deep fascia and are increased by immobilisation, overuse and repetitive movements with little variation. The neural part is caused by an upper motor neuron lesion, resulting in muscle spindle excitability increased by stiff/ pre-tensed fascia. This causes peripheral neurally mediated spasticity that can be treated by affecting the viscosity of hyaluronan in deep fascia. Fascial structures are also related to pain, a common problem in neurological patients. Novel research underlines the importance of tissue extensibility why methods affecting this might become important.

Objectives

This study aimed to identify if experienced paediatric physiotherapists noticed additional effects when applying Fascial Manipulation® in the physiotherapy for neurological paediatric clients.

Methods

A qualitative study was carried out by group-interviewing 12 physiotherapists with extensive experience of neurological physiotherapy and FM® as a new method. The additional effects were identified and grouped so that the effects gained by applying FM on 135 patient cases were clear. Changes in movement patterns and function, ROM and quality of movement before and after FM® treatment were evaluated by observation, photos/video and, when possible, patient feedback.

Results

Benefits gained by using FM® were improved proprioception, body awareness, balance and a significant increase in ROM. Agonist antagonist coordination improved, making the active and selective movements easier, and the impact of incorrect movement patterns became less severe. Change was also found in breathing and oral function. Clonus and spasms decreased or disappeared. FM® on scars affected muscle recruitment and improved sensory feedback. FM® was very effective and used as the only method for treating pain caused by hyper-resistance.

Conclusion

Applying FM® can affect tissue-related viscosity changes in hyper-resistance and have a significant impact on ROM, movement control, proprioception and pain. Patients benefit better from active training when the adaptability of the fascial structures is taken care of. FM® was used repetitively since hyper-resistance continuously affects the fascial tissue. Treatment interval correlates with the degree of muscle tone and the ability of the child to adapt to the changes gained by FM®. Neurological patients benefit from FM® combined with other rehabilitation approaches.

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