

The impact of using Pilates exercises on the electromyography of hyperlordosis for elderly

Dr. Ehab Mohammed Emad El-Deen Ibrahim (*)

The research aims to design a rehabilitation program using Pilates exercises for the hyperlordosis muscles for elderly. The researcher used semi-experimental method using the pre, inter and post measurement for one experimental group on a sample selected purposively, which consisted of (26) person with a percentage of 61.9 % of the research community by (22) person who are the basic sample of the research and four persons who are the members of the survey sample of the research. The research results have shown that the positive impact of the rehabilitation program using Pilates exercises has led to an improvement for elderly with hyperlordosis in the variables under consideration (length of the spine from different positions & the electromyography of hyperlordosis to make muscular balance between the lumbar muscles specially "right, left " erector spinae muscle and "right, left" multifidus muscle with the abdominal muscles specially "right, left" external abdominal oblique muscle and "right, left" rectus abdominis muscle & angles of hyperlordosis). The researcher recommends the need to apply the rehabilitation program using Pilates exercises under consideration on the elderly with hyperlordosis as well as a series of preventive measures to maintain the posture of the elderly.

Keywords: Kinetic Rehabilitation – Pilates – EMG - Lumbar spine