

2. ERGONOMIC COMPARISON OF MASSAGE THERAPY EQUIPMENT: CHAIR VS TABLE

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ABSTRACT

Objective: To determine whether there are differences in muscular and postural demands between using the massage chair and massage table (condition), as well as between techniques (period) of an On-Site (Corporate) massage.

Methods: Twelve female senior massage therapy students performed a 10-minute regional back massage on a fully clothed client using both a massage chair and massage table. Electromyography (EMG) was collected from eight muscles on the right side: anterior deltoid, posterior deltoid, lumbar erector spinae, upper trapezius, middle trapezius, flexor carpi radialis, extensor carpi radialis, and lateral triceps.

Root mean square was used to determine the mean activation over the entire massage for each muscle. Integrated EMG was used to compare activation between periods.

Eight Fastrak sensors were attached: the head, trunk, and upper arm, forearm, and hand bilaterally to track segment kinematics and determine total time spent in different postures. Results were analyzed using general linear models, and Tukey's HSD for significant interactions.

Results: There was higher activation in lumbar erector spinae when using the table and anterior deltoid when using the chair. The anterior deltoid showed a significant

condition*period interaction for mean muscle activation for six of the fourteen periods. The therapists spent significantly more time in mild trunk flexion when using the massage table, and significantly more time in severe radial deviation and mild shoulder flexion when using the massage chair.

Conclusions: The muscular and postural demands of conducting On-Site massages depended on the massage technique being performed as well as the equipment being used.