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Effects of Manual Therapy on Fatigue, Pain, and Psychological Aspects in Women with Fibromyalgia

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Abstract: Fibromyalgia is a condition characterised by chronic widespread muscle pain and fatigue, sleep disturbances, cognitive disorders, and mood disturbance. The purpose of this study was to determine the effectiveness of a manual therapy technique performed with moderate digital pressure in women with fibromyalgia ($n = 24$). In this randomised, controlled trial, the participants were randomly assigned to the experimental group or placebo group. The experimental group was assisted with manual therapy sessions based on connective tissue massage, whereas the placebo group was “treated” with ultrasound sessions performed without conductive gel and with the machine turned off as the placebo. Fatigue severity scale (FSS), visual analogical scale (VAS), Pittsburgh sleep quality index (PSQI), and profile of mood states (POMS-29) were completed before and after the intervention. In the experimental group (manual therapy), significant results were obtained on a VAS scale, referring to the neck pain in patients with fibromyalgia ($p < 0.001$). Correlations showed a relationship between fatigue and sleep variables ($R = 0.411$; $p = 0.046$) and pain variables with the POMS anger-hostility subscale ($R = 0.436$; $p = 0.033$). Although the size of the sample could be a limitation, the study concluded that the application of manual therapy in fibromyalgia patients performed with moderate pressure for 15 min on the posterior cervical musculature decreased the perception of pain, muscle fatigue, and the state of tension-anxiety.

Keywords: chronic disease; muscle fatigue; chronic pain; sleep disorders

1. Introduction

Fibromyalgia (FM) is a chronic musculoskeletal disease of unknown aetiology and is characterised by pain diffused throughout the body and hyperalgesia. Patients with FM also have functional and emotional disorders, including persistent fatigue, sleep disturbances, paresthesia, cognitive disorders, and mood disturbance [1]. Until 2016, the diagnostic criteria for fibromyalgia included the assessment of pain at 19 sites and a 4-item symptom severity scale from which an overall fibromyalgia severity score, the polysymptomatic distress (PSD) scale, could be calculated [2]. In 2016, a modification added a widespread pain criterion and clarified scoring (2016 criteria) [3]. The new criteria for diagnosis combines the concept of generalised chronic pain (such as a generalised pain index covering 19 regions)

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