Clin Exp Rheumatol. 2015 Mar-Apr;33(1 Suppl 88):93-101. Epub 2015 Mar 18.

Web/Internet-based telemonitoring of a randomized controlled trial evaluating the time-integrated effects of a 24-week multicomponent intervention on key health outcomes in patients with fibromyalgia.

Salaffi F[1], Ciapetti A[1], Gasparini S[1], Atzeni F[2], Sarzi-Puttini P[3], Baroni M[4].

Abstract

OBJECTIVES:

The aims of the study were to assess the efficacy of a multicomponent intervention and evaluate the feasibility and user acceptance of an internet-based home telemedical surveillance system for the evaluation of pain and other key health outcomes in patients with fibromyalgia (FM).

METHODS:

The study involved 76 FM patients who were randomised to usual care or the multicomponent exercise programme, which consisted of 24 twice-weekly sessions of combined aerobic, muscle strength training exercises and education. All the patients completed the revised version of the Fibromyalgia Impact Questionnaire (FIQR) and the self-administered Fibromyalgia Activity Score (FAS). A predefined website allowed authorised users to enter data via a personal computer (PC) and Internet browser. The differences between the groups were assessed using the Mann-Whitney U-test and Fisher's exact test, and the correlations were analysed using Spearman's rank correlation test.

RESULTS:

The multicomponent intervention led to a clinically relevant difference in improvement in comparison with the standard approach. It markedly improved the FIQR symptom subscale score, significantly increased the time-integrated area under the curve (AUC) of the FAS scores, and led to a greater benefit in terms of fatigue and the quality of sleep. The mean change in the AUC of the total FIQR score closely correlated with the changes in the AUC of the total FAS score.

CONCLUSIONS:

The multicomponent approach to FM was effective in treating the key symptoms and maintaining the improvements in the short term, and telemonitoring proved to be an easyto-use solution for patient-centred data acquisition.