

Effects of aerobic exercise training on the mental and physical health and social functioning of patients with type 2 diabetes mellitus

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Abstract

Introduction: Diabetic mellitus disease can negatively influence the physical functioning, emotional state, and individual, family and social relationships of patients with diabetes and, in general, their health and feeling of wellness. Caloric restriction and oral hypoglycemic agents also have undesirable effects on the mental health of these patients. The purpose of this study was to examine the effect of aerobic exercise training on mental and physical health, anxiety, insomnia, social functioning and depression in patients of type 2 diabetes mellitus. **Materials and Methods:** In this clinical trial, fifty-three patients with type 2 diabetes, age range 40, 10±6, 11 years, with average of 9±3 years of disease were chosen purposively and were randomly assigned into 2 groups, the 8 week aerobic exercise training (n=27) and the non-training (n=26) group. The aerobic exercise training group participated in an aerobic training program, intensity 70-75% heart rate reserve, frequency 3 days/week, duration 40-60 min/session. Mental health was evaluated using a general health questionnaire (GHQ) in the two groups before and after the study. The independent t-test was used for data analysis. **Results:** The 8 week aerobic exercise training had a significant effect on mental health, subscales of physical symptoms, anxiety & insomnia ($p < 0.05$). However no significant effect on subscales of social functioning and depression was observed ($p > 0.05$). **Conclusion:** Aerobic exercise training, as part of a health promotion program, can be effective on the mental health of patients with type 2 diabetes.

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