運動訓練、環境改善及教育對跌倒老人生活品質的影響

The effects of exercise training, environmental modification, and education on quality of life among elderly fallers

中文摘要

目的：針對台中縣新社鄉 65 歲以上跌倒就醫老人，評估運動訓練、環境改善及教育等三種介入，對跌倒老人生活品質的影響。方法：研究設計採用隨機控制試驗(Randomized controlled trial)，並且在跌倒老人家中進行介入。以區塊隨機分派(block randomization)的方式，將老人以 1：1：1 的比例，隨機分配至三組。研究期間從 2003 年 7 月底至 2005 年 8 月初，共有 150 位老人參與。利用台灣世界衛生組織生活品質問卷簡明版評估介入前後的生活品質變化。多變項分析以一般線性混合模式(general mixed-effect model)，比較三組介入後生活品質是否有差異。結果：以教育組爲對照組，運動訓練組在心理多增加 1.5 分(95%信賴區間爲 0.4~2.5)、社會關係多增加 1.3 分(95%信賴區間爲 0.4~2.2)、環境多增加 1.4(95%信賴區間爲 0.6~2.3)等範疇都有顯著的進步。與教育組比較環境改善組在社會關係多增加 1.0 分(95%信賴區間爲 0.1~1.9)有顯著的進步。結論：執行老人跌倒後家中運動訓練，對於老人跌倒後生活品質在心理、社會關係、環境範疇都有顯著的進步，顯示運動的確能改善跌倒老人的健康相關生活品質。

關鍵字：老人、隨機控制試驗、區塊隨機分派、運動訓練、健康相關生活品質

英文摘要

Purpose: This study was to evaluate the effects of exercise training, environmental modification, and education on quality of life among
elderly fallers aged 65 years or older and living in Shin-Sher Township, Taichung Country, Taiwan. Methods: The study design was a randomized controlled trial at older people’s home. One hundred and fifty participants were randomized to three groups of exercise training, environmental modification, and education. The health-related quality of life was evaluated by the brief version of the World Health Organization Quality of Life (WHOQOL-BREF). The general mixed-effect model was used to investigate the change in quality of life among three groups while adjustment for other potential confounders. Result: Compared with the educational group, exercise training group had significant improvement in the psychological domain (increase 1.5, 95% CI(confidence interval) was 0.4 to 2.5), social domain (increase 1.3, 95% CI was 0.4 to 2.2), and environmental domain (increase 1.4, 95% CI was 0.6 to 2.3). The environmental modification group had significantly improvement in social domain (increase 1.0,95% CI was 0.1 to 1.9), compared with

the educational group. Conclusion: Exercise training significantly improved the quality of life among elderly fallers in the psychological domain, social domain, and environment domain. It revealed that exercise can improve multiple domains of quality of life among elderly fallers.

Keywords: elderly, randomized controlled trial, block randomization, exercise training, quality of life