The effectiveness of health management on the community-dwelling elderly from a randomized controlled trial by Bayesian approach

Jiayi Gu
Southeast University, China

Statement of the Problem: Aging is a challenge for China. Health management is regarded as an effective way to improve the health of the elderly. However, relevant studies and evidences are still lacking in China. The purpose of this study is to conduct a randomized controlled trial and used Bayesian approach to evaluate the effectiveness of health management on the health of the elderly.

Methodology: A randomized, controlled trial was undertaken and the sample was from the community-dwelling elderly (≥ 60 years). Intervention group received a health management program, which included a series of health promotion activities. Concurrent control group received usual care. The duration of this trial lasted 24 months. The main outcomes were assessed through a multi-dimensional instrument designed for the elderly at baseline and 6, 18, 24 months. Bayesian linear mixed models were used for analyzing the effect of health management.

Findings: The results showed that there was a significant improvement per month in intervention group on the following dimensions: body function, emotional personality, memory function, social adaptability and general health. The control group showed a significant decrease per month on the following dimensions: body function, emotional personality, memory function and general health. According to sensitivity analyses, the results from Bayesian linear mixed model were robust.

Conclusion & Significance: This study demonstrated that health management was expected to improve physical, mental health and social adaptability of the community-dwelling elderly when it was specific and tailored according to the personal need.

Biography
Jiayi Gu has completed his Master of Epidemiology and Biostatistics and currently is a PhD candidate. He is mainly engaged in the related research of health management for the elderly. He and his group have recently carried out a study of health management program for the elderly for a period of two years. The program encouraged a healthy lifestyle and the uptake of preventative care among the elderly. In this study, the effect of health management for the elderly was evaluated through statistical methods.

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