Health education effects on physical fitness and blood chemistry among senior citizen in both rural and urban areas of Bali, Indonesia

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Introduction

This study aimed to establish appropriately in Bali, Indonesia a Japanese style healthcare program which acquired ISO 9001:2008 (International Organization for Standardization) and assess its effectiveness for the health education of Bali, Indonesia. In particular, it can be beneficial to share the health promotion in Bali, Indonesia with other countries.

Method

Participants in Tabanan, Indonesia totaled 30 people age 67.9 ± 1.2 years, and in Denpasar, Indonesia totaled 72 people age 67.3 ± 0.6 years. The health program lasted 8 months, and it measured their energy expenditure using a pedometer and implemented anthropometry measurements, using go/no-go tasks for the brain function test, physical fitness tests and blood chemistry tests before and after this period.

Results

The results in Tabanan showed the average walking steps were 4247.2 ± 98.9, and in Denpasar the average walking steps were 4336.1 ± 102.4. Anthropometry measurements (weight and girth of the abdomen) had no significant difference in Tabanan and Denpasar. Physical fitness as for Tabanan, the results for the sit and reach flexibility and 10 m obstacle walk significantly improved. In Denpasar, the results for the 10 m obstacle walk significantly improved. Blood chemistry, in Tabanan and Denpasar, there was no significant difference after the program. Brain function, in Tabanan the go/no-go task response time was significantly shorter and the number of error responses significantly decreased after the program.

Conclusion and Suggestion

Health education using a Japanese style healthcare program has beneficial effects for health promotion on senior citizens in urban and rural areas in Bali, Indonesia. Physical fitness, blood chemistry brain function were improved. This program can be used to other people in Bali or other countries.

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