



Analysis of the Effectiveness of Multicomponent Intervention Programs Preventing and Delaying Disabilities and Dementia for the Elderly – An Example of a Community Hospital in Southern Taiwan

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Background and objective

Results

Taiwan's population is rapidly aging and will soon become the super-aged society by 2025. In order to meet the demands of long-term care needs, the government has expanded the number of service categories and items. Hence active aging and health promotion to prevent disability and delay dementia for the elderly has become the utmost urgent task.

Total of 123 cases were received (average age 72.6 years old, female accounted for 59%). After intervention, 12 cases progress in cognitive function test (9.7%, $P < .05$), cases reaching the normal scale of depression test increase up to 7.4% ($P < .05$), 14 cases show improvement in frailty (11.4%, $P < .05$), the improvement of hand grip strength test (male 4%, female 5.4%), and 9 cases improve in the 6-meter walking speed (7%, $P < .05$).

Methods/intervention

Conclusions/lessons learned

This study retrospectively analyzes the effectiveness of a 12-week compound course conducted by the "Veterans General Hospital Tainan Branch Comprehensive Senior LOHAS Center" for seniors with frailty risk over 65 years old in community care centers, and veterans' homes in Tainan City in 2023. The course lasts 12 weeks per session/2 hours per week. The course content includes four modules: cognitive improvement, nutrition education, physical fitness, and medical education. A comprehensive geriatric assessment was conducted before and after the implementation, which included basic information, the Short Portable Mental State Questionnaire (SPMSQ), Geriatric Depression Scale (GDS-5), Hand Grip Strength, and the 6-meter walking speed (WS). Frailty was defined using the Cardiovascular Health Study Definition (CHS) index (≥ 3 as frailty and 1-2 as frailty risk).

Our research affirms the positive effects of the 12 weeks comprehensive intervention to prevent and delay disability and dementia in community based elders.

Relevance to health promoting hospitals and health services

A mission of the Community Healthcare Center of VGHKS-Tainan branch Hospital, Taiwan, is to carry out in-hospital and out-of-hospital health promotion, disability delay, screening and caregiver support. Through the positive results, we will know the strategy of how to promote the intrinsic capacity and quality of life in the elderly.



Table 1. before and after the diversity courses N=123

Characteristics	Pre-test	Post-test
GDS-5	0.4±0.8	0.1±0.5
≥ 2	11(9.8%)	3(2.4%)
< 2	111(90.2%)	120(97.6%)
SPMSQ	1.1±1.4	0.6±1.1
> 2	19(15.4%)	7(5.7%)
≤ 2	104(84.6%)	116(94.3%)
6-meter walking speed (WS)	1.0±0.4	1.1±0.4
≤ 1.0 m/s	60(48.8%)	53(43.1%)
> 1.0 m/s	63(51.2%)	70(57.3%)
hand grip strength test (M) N=50	29.1±7.9	30.9±8.5
< 28 Kg	21(42.0%)	19(38.0%)
≥ 28 Kg	29(58.0%)	31(62.0%)
hand grip strength test (F) N=73	20.7±5.0	22.2±4.9
< 18 Kg	15(20.5%)	11(15.1%)
≥ 18 Kg	58(79.5%)	62(84.9%)

