

# Evaluation of a comprehensive pro-active intervention on quality of life for community frail older adults



Yen-Chun Lin, Lian-Hua Huang, Meei-Fang Lou, School of Nursing, National Taiwan University, Taipei, Taiwan  
E-mail address: [yenlin@ntu.edu.tw](mailto:yenlin@ntu.edu.tw) TEL: 886-2-23123456 ext. 88903  
Acknowledgment: Ministry of Science and Technology & Ministry of Health and Welfare, Taiwan



## Introduction

With life expectancy increasing, the population of older adults in Taiwan is about 13.3% in 2016. The high percentage of aging population increased long term care demands and medical expenditures in Taiwan. In the past years, the majority of health care models in Taiwan were designed for acute medical problems. Few nursing care resources were available for community frail older adults with chronic diseases, resulting in heavy burdens for family caregivers. Previous research results have shown that comprehensive pro-active interventions could not only improve self-management ability and quality of life in older adults, but also decrease their health problems and medical expenditures.

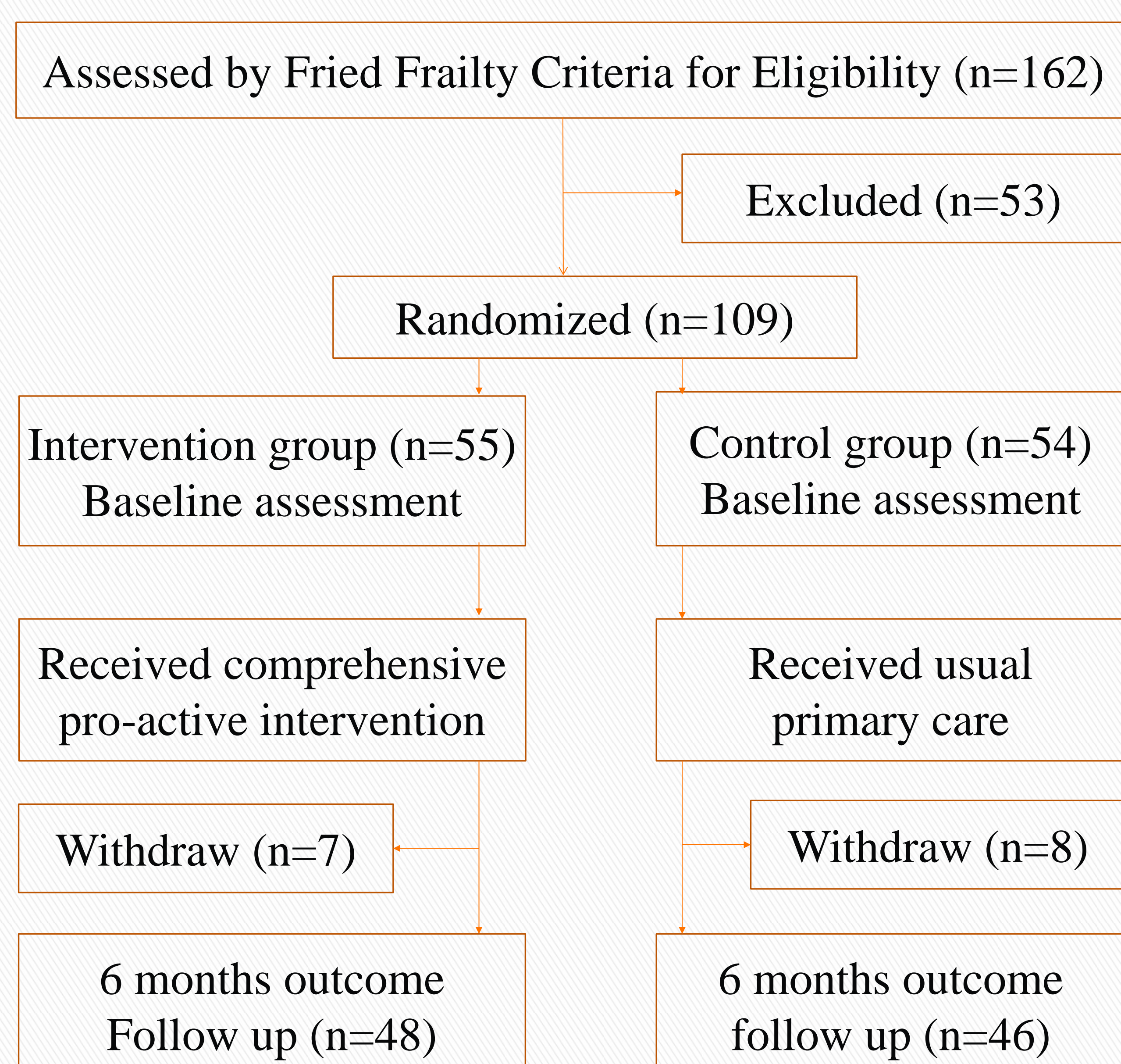
## Aim

The purpose of this study is to evaluate a comprehensive pro-active intervention for community frail older adults and examine its effectiveness.

## Method

This is a pilot experimental study. The older adults who consented and met the frail or pre-frail status assessed by Fried Frailty Criteria were randomly assigned into intervention (N=55) and control groups (n=54). The intervention group received a 6-month comprehensive pro-active intervention. The control group received the usual primary care. Both the intervention and control groups completed the Health Related Quality of Life (WHOQOL-BREF) at baseline and again at a 6-month follow up. Analysis of covariance (ANCOVA) was used to compare the outcome across groups with post-test as outcome and baseline values as a covariate.

## Flow Chart



## Comprehensive pro-active intervention

1. Comprehensive assessment – physical, psychological, cognitive, social, economic and environmental.
2. Intervention – physical activity, health education, community resource referrals, community support groups, counseling.

## Instruments

1. Demographic information and health status.
2. Fried Frailty Criteria: lost more than 10 pounds unintentionally in past year, self-reported exhaustion feelings (evaluated by two items of Center for Epidemiologic Studies Depression Scale; CES-D), weak grip strength, slow walking speed, and low level of physical activity (evaluated by the International Physical Activity Questionnaire (IPAQ)–Short Form). Clients with 1 or 2 indicators will be defined as pre-frail. Clients with 3 or 5 indicators will be defined as frail.
3. Quality of life (WHOQOL-BREF) Taiwan version.

## Results

Intervention effect on scores of questionnaire

Domain	Group	Pre-test	Post-test	Paired-t	<sup>1</sup> F (p)
Physical	Experimental	12.23±2.35	13.34±2.22	-3.11**	5.34*
	Control	13.23±2.21	12.99±2.69	0.90	(.02)
Psychological	Experimental	12.00±1.71	13.17±2.10	-3.07**	0.32
	Control	12.30±2.10	13.02±2.77	-1.96	(.57)
Social relationship	Experimental	12.09±1.64	12.69±2.30	-1.55	1.00
	Control	12.69±2.17	13.25±2.19	-1.36	(.32)
Environmental	Experimental	12.15±1.83	13.82±1.98	-4.85***	2.86
	Control	13.12±2.10	13.53±1.74	-1.46	(.09)

\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

<sup>1</sup> F value is the analysis results of covariance (ANCOVA) which examine the intervention effect after adjusting pre-test scores.

## Discussion

Consistent with other studies, the results confirmed that the interventions in this study were effective in improving participants' quality of life for physical domain. However, the results of this study showed that the lower mean scores of quality of life were in psychological and social relationship domains for these frail older adults. It is not easy to increase quality of life in psychological and social relationship domains among them. The frail status limited their mobility and willingness to go out. Social isolation led to loneliness. It could be the possible reason for the intervention limitations. It is recommended that multidisciplinary professionals and community resources such as church or volunteer groups could work together to develop not only group community activity, but also reach out or home services, to provide more social or psychological supports for frail older adults.



## Conclusion

The results showed that the interventions were significantly improved the quality of life for physical domain. Future research to investigate effective interventions for other domains is recommended.