

Effects of activity program in prevention of functional decline among hospitalized elderly: A pilot study



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Background

Limited motion and related complications of elderly might cause prolonged length of stay and risk of functional decline during hospitalization. Previous research demonstrated that 40% of elderly has functional decline during hospitalization and 28.6% of them are unable to regain the original function.

Purpose

This pilot study was aimed to explore the effect of intervention to prevent functional decline in hospitalized elderly.

Methods

A total of 15 elderly who were enrolled and randomized allocated into the control group (n=7) and the experimental group (n=8). Admitted in one of the medical center at southern Taiwan. Patients in the experimental group were intervened by accumulated 10~60 minutes walking daily from admission to one month after discharge. The walking plan was designed according to individual physical tolerance and personal preference. The outcome measures included activities of daily function measured by Modified Barthel Index, hand grip strength, time up and go test, quality of life, discharge destination, hospital length of stay, 28-day readmission rate.

Results

- Both experimental and control group showed improvement in Modified Barthel Index between admission and one month after discharge. Yet, only experimental group was able to recover to the original physical function at discharge.
- The hand grip strength at discharge was greater in experimental group as compared to control group.
- The improvement of Time Up and Go test between admission and discharged in experimental group was better than control group (-4.0±8.0second vs. -1.3±1.3second).

Figure 1 Modified Barthel Index variation from 2 weeks before admission to 3 months after discharge

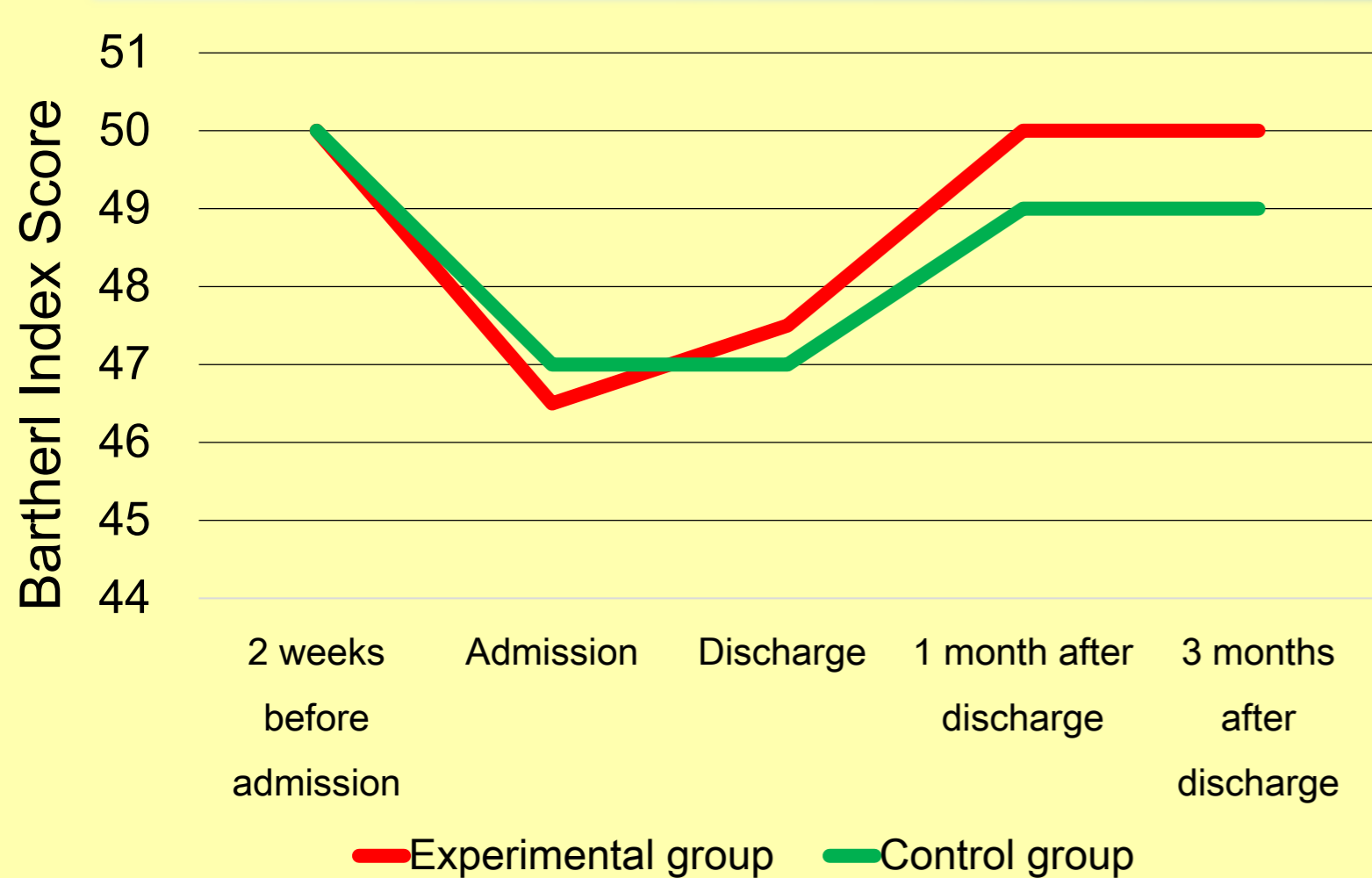


Figure 2 The hand grip strength variation from admission to 1 month after discharge

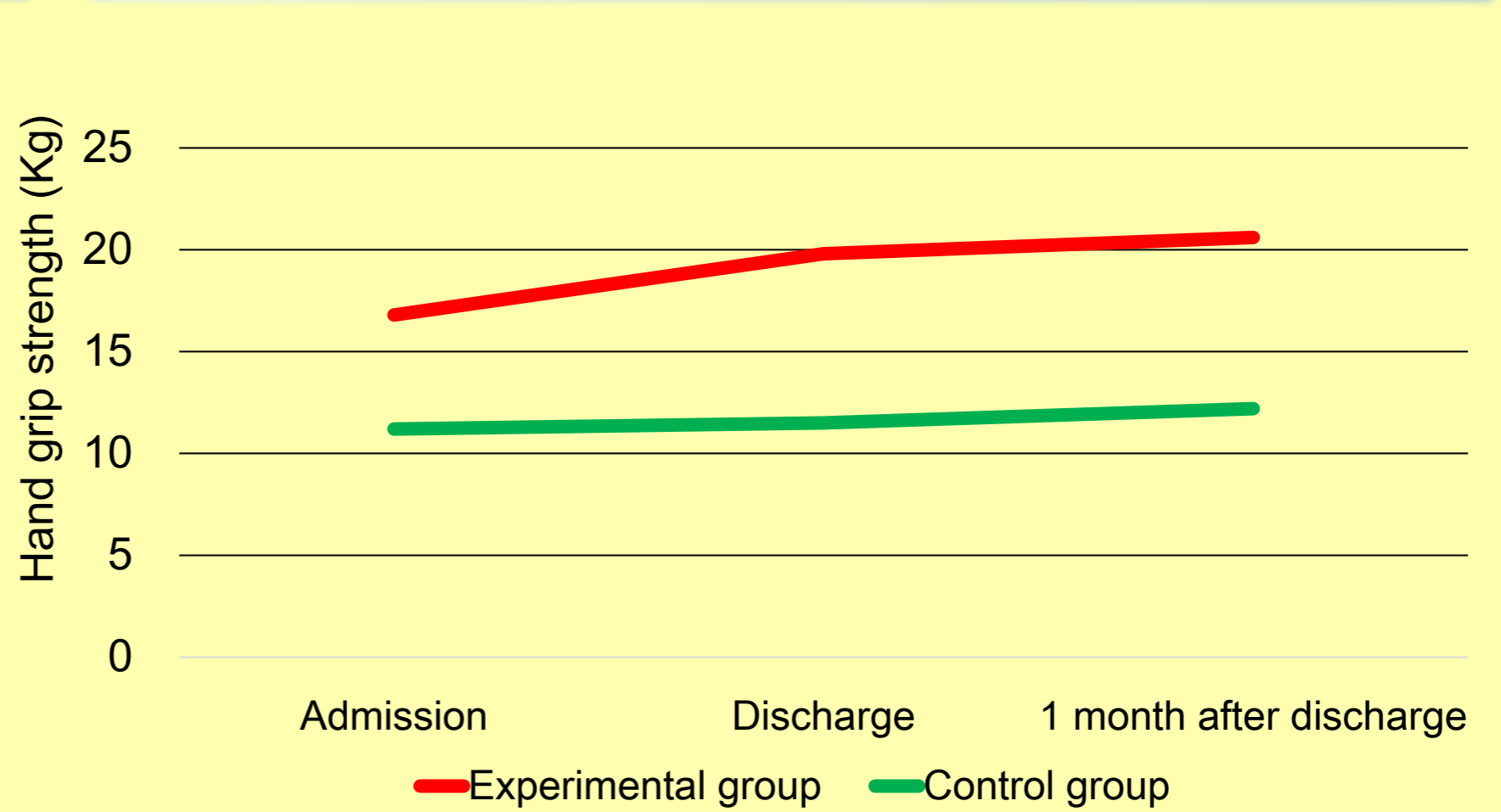
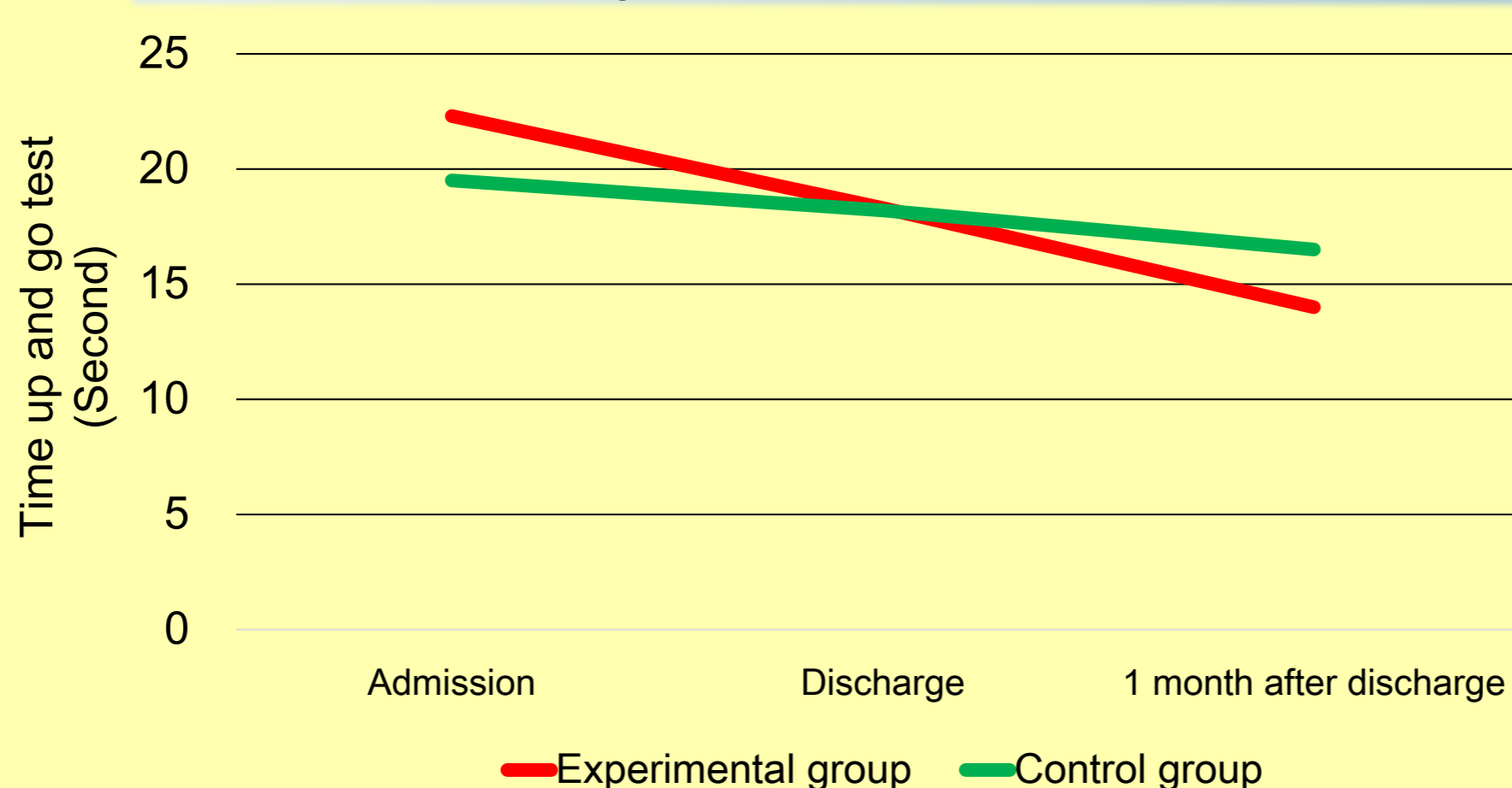


Figure 3 Time up and go variation from admission to 1 month after discharge



Conclusion

In conclusion, the walking intervention is shown to be feasible and effective in preventing functional decline in elderly. We suggested that the walking intervention may plan into clinical care in the future.

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