

# **Evaluation on the Effectiveness of Cross-sector Collaboration Model in Home Exercise Program for the Community-dwelling Frail Elders**

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## **Introduction:**

Home exercises have proved to be effective in maintaining the elders' mobility and enhancing their functional independence. These exercises, specifically prescribed by Physiotherapists (PT) from Hospital Authority (HA) to cater for individual client needs, are carried out at each elder's home under Home Helper's assistance. With the collaboration between Integrated Home Care Service Teams (IHCSTs) and Hospital Authority (HA), Home Helpers (HH) from IHCSTs received training from HA Physiotherapist (PT) on the practical skills in carrying out the PT-prescribed Home Exercises (HE) to home-bound frail elders. This study attempts to investigate the effectiveness of this cross-sector collaboration model.

## **Purpose of the Project:**

To evaluate the effectiveness of this model by assessing (i) the effectiveness of home helper training by PT; (ii) the effectiveness of home exercise programme on the elders conducted by home helpers

## **Material & Methods:**

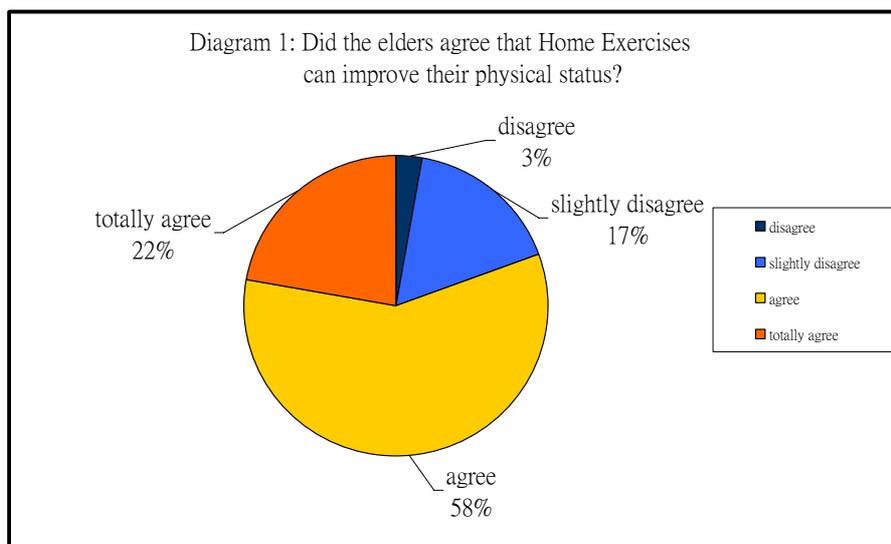
Home helper training consisted of a theory talk, a practical training session and onsite spot-checking visits. Pre-talk and post-talk quizzes were also conducted for assessing their knowledge. Helpers' performances were assessed & monitored during the training and visits.

For home exercise evaluation, a satisfaction survey was conducted to acquire the elders' feedback on exercise effectiveness. The readings of Elderly Mobility Score (EMS) and Tinetti scores (final) taken at the end of 1-year intervention were compared with the initial (baseline) readings for the assessment of the elders' mobility and balance.

## **Result:**

50 helpers were trained and assessed. 92% of helpers passed the post-talk quiz (only 66% in pre-talk quiz). All helpers passed the practical test. 90% helpers' performances were satisfactory during ad hoc onsite assessments. It reflected that the trainings were effective and knowledge acquired could be applied to their practice.

Over 80% of elders (n=37) admitted that HE could improve their physical status and ADL performance. Over 90% of elders agreed that HH were necessary in assisting them to do the exercises.



Paired-t tests were used to determine the change in EMS and Tinetti mean scores. Statistically, both mean scores in the final assessment were significantly higher than the initial scores showing that the elders' balance and mobility had improved after intervention.

Paired Samples T-Test

	Change in Mean	Std. Deviation	Sig.(2-tailed)
EMS(final)- EMS(initial)	1.47	3.53	<b>0.012</b>

Table 1: Change in EMS scores between initial and final(one year after) assessment

Paired Samples T-Test

	Change in Mean	Std. Deviation	Sig.(2-tailed)
Tinetti(final)- Tinetti(initial)	1.82	4.859	<b>0.027</b>

Table 2: Change in Tinetti scores between initial and final(one year after) assessment

## **Conclusions:**

The improvement in elders' mobility and their satisfaction reflected the positive effect of HE carried out by HH. With the effective training and continuous monitoring by PT from HA, HH performance quality was assured. This collaboration model is considered effective and practicable.