



循道衛理楊震社會服務處
YANG MEMORIAL METHODIST SOCIAL SERVICE



| Research Project | Stick Mobility

| Research Unit |
CHOI WAN
COMMUNITY CARE SERVICE





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| Background |

Stick mobility is a training system initially developed for athletes to improve performance, lower injury risk and speed up recovery.

It incorporates joint mobilization, strength training and active stretching.

We hope that the training will improve mobility and reduce the risk of falls among older persons.

| Objective |

To evaluate how the training regimen affected the participants' balance, muscle strength and fear of falling.





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| Methods |

Participants were older adults over 60 who lived in the community and had stable health but were afraid about falling.

Stick mobility training was used as an intervention, and standard balance training was used as a control group. Eight weekly sessions, lasting an hour each, made up each group.

Handgrip strength, the mini balancing evaluation systems test (Mini-BESTest), and the 30-second sit-to-stand test (lower limb strength) were the primary outcome measures.

The Falls Efficacy Scale International (FES-I) questionnaire was also used to assess fear of falling.



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| Results |

Sixteen of the sixty individuals that were contacted satisfied the requirements for inclusion. Eight people each were assigned to the intervention and control groups.

76.2 was the average age. Eight out of eight (100%) intervention participants and six out of eight (75%) control participants finished the final evaluation at the end of the program.

After adjusting for baseline values, the intervention group scored higher on the Mini-BESTest (3.96; $p=0.037$) and completed 2.25 ($p=0.058$) repeats of the 30-second sit-to-stand test. Following training, both groups' FES-I trends improved, and they did not experience any falls for six months.





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| Discussion |

When comparing the two groups, the intervention group performed more repetitions of the 30-second sitting-to-standing exercise and scored higher on the Mini-BESTest.

The intervention group showed a tendency of improvement in FES-I. The post-test results showed an improvement in handgrip strength within the intervention group.

Additional studies, including randomized control, greater sample size, and routine monitoring of the number of falls following a training session, can be carried out to evaluate the impact.



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| Conclusion |

The 8-week stick mobility pilot research for fall prevention in the elderly proved practical to conduct. The subjects' lower limb strength, balance test, and FES-I all improved.



An elderly service user performs core muscle strengthening, lower limb training, and balance exercises using an exercise bar.



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| More Information |

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