

Learning techniques for falling safely – a novel approach including exercise targeting important risk factors for falls

Marina Arkkukangas 1,2, Karin Strömqvist Bååthe 3, Michail Tonkonogi 3

1 Research and Development in Sörmland, Sweden

2 Department of Physiotherapy, School of Health, Care and Social Welfare, Mälardalen University, Västerås, Sweden

3 School of Education, Health and Social Studies, Department of Medicine, Sport and Fitness Science, Högskolan Dalarna, Falun, Sweden

INTRODUCTION

With the rapid increasingly aging population there is also expected to be an increasing demand on health care services in a near future. Falling represents the leading cause of unintentional injury in this population with approximately one third of older adults falling each year.

Actions to prevent falls are well known and documented. However, prevention of falls is still undertreated, and actions to prevent both fall risks and fall related injuries are warranted. The aim with this pilot study was to investigate the possible effect of a specific developed judo inspired exercise program targeting known risk factors for falls among older adults e.g., strength, balance, activity level, fall-related self-efficacy and techniques for falling safely.

METHODS

This study was a small pilot study with a total of seven women aged 65-80 who participated in a 16-week program at a health care center in middle Sweden. The participants were mobile, independently living older adults and they attended the exercise program once a week for 16 weeks. Each session lasted approximately one hour.

RESULTS

Among the women, 71-86% improved their strength, balance, activity level, falls self-efficacy, as well as techniques for falling safely. The frequency of attendance was between 13-16 times, out of a total of 16 sessions.

Figure 1. Proportions of improvement at 16-week follow up.



Note. SPPB= Short Physical Performance Battery, FES-S=Falls- Efficacy Scale- Swedish version

CONCLUSION

The intervention and chosen targeted outcome measures in this study was judged to be effective and of great importance and considered to provide novel knowledge to research and practice. Therefore, the intervention will be further investigated in a planned larger randomized controlled trial out of the experiences from this study.



Photo: Jens Arenhill

HIGHLIGHTS

- The judo inspired program may be effective for learning techniques for falling safely among older adults.
- Physical and psychological functions increase after participation in a 16-week judo inspired exercise program.
- A judo-inspired exercise program may serve as an additional measure to address known risk factors for falls among older adults.

Marina Arkkukangas, PT, PHD

Research and development in Sörmland, Drottninggatan 16 B, 632 17 Eskilstuna Sweden, marina.arkkukangas@fou.sormland.se



