NKR 50 forebyggelse af fald - styrketræning

Review information

Authors

Sundhedsstyrelsen[1]

[1][Empty affiliation]

Citation example: S. NKR 50 forebyggelse af fald - styrketræning. Cochrane Database of Systematic Reviews [Year], Issue [Issue].

Characteristics of studies

Characteristics of included studies

Nowalk 2001

Methods	**Study design:** Randomized controlled trial **Study grouping:** Parallel group
Participants	**Included criteria:** Any resident of either of the two facilities was eligible for the study if he or she was > 65 yrs old, cognitively able to be tested, ambulatory with or without an assistive device, able to follow simple directions, cooperative, and capable of participating in group sessions. **Excluded criteria:** Potential participants were excluded if they were unable or unwilling to complete the baseline assessments **Pretreatment:** There were no significant differences among the three groups for any of the characteristics, with the exception of marital status, which has not been previously reported to affect risk of falling.
Interventions	**Intervention Characteristics** Intervention (Strength) ● *Description*: Exercise program “Fit NB Free” (FNBF), an individualized, progressive, strength-training and conditioning program that utilized treadmill walking, bicycling, and weight lifting, as appropriate, to improve muscle strength,flexibility, and cardiac conditioning. Trained exercise physiologists, who used behavioral techniques to encourageparticipants to gradually increase the intensity of their workouts, conducted the exercise sessions. FNBF exercise sessions were held three times/week throughout the program ● *Duration (month)*: 13 to 28 months depending upon the date of their enrollment ● *Duration of follow-up after end of treatment*: None

	Control ● *Description*: The basic enhanced program (control) was a comprehensive, collaborative, falls prevention program that includedteam management and three educational programs de-signed to enhance quality-of-life programming for all residents at the facilities, but not necessarily to prevent falls.Specifically, these programs were: “Walk-Along,” a monthlyprogram to encourage interaction between nursing staff and residents while walking; “Pill Talk,” a program to dis-cuss various medications commonly used by seniors; and“Music and Memories,” a program designed to improve residents’ joy and satisfaction using the music of their past to stimulate pleasant memories. Participants randomizedto the control group attended no other study-provided exercise programs. ● *Duration (month)*: 13 to 28 months depending upon the date of their enrollment ● *Duration of follow-up after end of treatment*: None
Outcomes	*% who fell at end pf treatment* ● **Outcome type**: DichotomousOutcome ● **Reporting**: Partially reported ● **Direction**: Lower is better ● **Data value**: Endpoint ● **Notes**: N is unclear, we have used N at baseline for the analyses
Identification	**Sponsorship source:** Supported by grants from the Scaife Family Foundation, Pittsburgh, Pennsylvania, and the Jewish Healthcare Foundation, Pittsburgh, Pennsylvania.Reported at the 1998 annual meeting of the American Geriatrics Society, Seattle, Washington. **Country:** US **Setting:** Long term care facilities **Comments:** **Authors name:** Mary Patricia Nowalk, **Institution:** Mercy Center for Aging; University of Pittsburgh School of Medicine. **Email:** NA **Address:** 4594 Doverdell Drive, Pittsburgh, PA 15236.
Notes	

Risk of bias table

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Low risk	Quote: "Following completion of all assessments, participants were randomly assigned to one of three groups. Within each facility, participants who had consented to partici- pate were stratified by age (70, 70 years) and gender. Within each of these four strata, participants were ran- domized using permuted blocks (block size 9) into one of the three groups. This method was performed sepa- rately for each site to ensure that there would be approxi- mately equal numbers of individuals within each group over time." Judgement Comment: Probably done using a computer
Allocation concealment (selection bias)	Unclear risk	Judgement Comment: Not described
Blinding of participants and personnel (performance bias)	High risk	Judgement Comment: Not blinded
Blinding of outcome assessment (detection bias)	High risk	Quote: "A fall was defined as “a sudden, unintentional change in position from an upright posture, with or without loss of consciousness, causing the victim to land on the ground, as reported by the faller or a witness.” 15 Only falls that re- sulted in a written incident report at the facilities were used in these analyses." Judgement Comment: Unlike that the staff at the housing communities were unaware of the allocation status
Incomplete outcome data (attrition bias)	Low risk	Quote: "By the end of the study, 23 people had died (20.9%) and seven (6.4%) had moved out of the facilities. The av- erage length of follow-up was 21.9 4.6 months. The original study had been planned to follow everyone for 24 months. However, due to difficulty in recruitment and fund- ing shortfalls, we were not able to follow the last eleven participants enrolled for the full 24 months. The range of follow-up for those eleven participants was 13–23 months. Of the eleven, five fell and six did not."
Selective reporting (reporting bias)	Low risk	Judgement Comment: They found no differences in the outcomes and hence only reported 'No difference' and not the actual numbers one needs to include the data in meta-analysis
Other bias	Low risk	Judgement Comment: No other apparent source of bias

Seo 2012

Methods	**Study design:** Randomized controlled trial **Study grouping:** Parallel group
Participants	**Baseline Characteristics** Intervention Kontrol Overall **Included criteria:** The inclusion criteria wereover 65-years-old, able to ambulate at least 10 m independently(without a device), having at least one fall experience within thepast year, inability to stand on one leg for 5 seconds or more [10],and having taken the Mini-Mental State Examination Koreanversion (MMSE-K; sensitivity = 94.3%; specificity = 87.5%) [11],with a score of over 24.Women? **Excluded criteria:** The exclusion criteria were as follows:history of severe cardiac or pulmonary problem, stroke, and spinefracture. **Pretreatment:** ingen angivne
Interventions	**Intervention Characteristics** Intervention ● *Intervention*: The resistance exercise group (n = 33) carried out elastic-bandexercises. The exercise intensity was represented by theband colors and repetition sets. One set consisted of 10-timeexercise repetitions, the number of sets was increased at eachrepetition, and a 2-minute rest between sets was allowed. For theload increase, the yellow band was used for two sets from thebeginning to the 4th week of the exercise program, and the redband was used for three sets, starting from the 5th week. Kontrol ● *Intervention*: Those who had been assigned to the control group were asked to continue their daily routine activities.
Outcomes	*Antal fald (uden bevidsthedstab)* ● **Outcome type**: DichotomousOutcome *Antal af personer som falder (uden bevidsthedstab)* ● **Outcome type**: DichotomousOutcome *Antal fald med fraktur (major injury)* ● **Outcome type**: DichotomousOutcome *Dynamisk balance* ● **Outcome type**: ContinuousOutcome ● **Scale**: theFigure-of-EightRunning(FER)test

	● **Direction**: Lower is better ● **Data value**: Endpoint *Mobilitet* ● **Outcome type**: ContinuousOutcome ● **Scale**: TUG ● **Unit of measure**: sec ● **Direction**: Lower is better ● **Data value**: Endpoint *Frygt for fald* ● **Outcome type**: ContinuousOutcome ● **Scale**: FES-I ● **Direction**: Lower is better ● **Data value**: Endpoint *Dagligt aktivitetsniveau* ● **Outcome type**: ContinuousOutcome *Livskvalitet* ● **Outcome type**: ContinuousOutcome *Død* ● **Outcome type**: AdverseEvent *Utilsigtede hændelser (AE)* ● **Outcome type**: AdverseEvent
Identification	**Sponsorship source:** **Country:** Korea **Setting:** recruited from three senior welfare centers **Comments:** **Authors name:** B.D.Seo **Institution:** Department of Physical Therapy, College of Health, Kyungwoon University, 55, Induck-ri, Sandong-myun, Gumi-si, Kyungsangbuk-do, Korea **Email:** oksbd@paran.com **Address:**

Notes	*Sebrina Maj-Britt Hansen* on 19/02/2017 21:54 **Select** Institution, tjek fulltext

Risk of bias table

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Unclear risk	Judgement Comment: ikke beskrevet
Allocation concealment (selection bias)	Unclear risk	Judgement Comment: ikke beskrevet
Blinding of participants and personnel (performance bias)	High risk	Quote: "Those who had been assigned to the control group (n = 31) were asked to continue their daily routine activities. All" Judgement Comment: ingen sham intervention, så ikke blindede
Blinding of outcome assessment (detection bias)	Unclear risk	Judgement Comment: ikke beskrevet
Incomplete outcome data (attrition bias)	Unclear risk	Judgement Comment: intet flowchart eller beskrivelse af drop-out
Selective reporting (reporting bias)	Low risk	Judgement Comment: samme outcome i method og results
Other bias	Low risk	Judgement Comment: intet andet åbenlyst

Serra Rexach 2011

Methods	**Study design:** Randomized controlled trial **Study grouping:** Parallel group
Participants	**Baseline Characteristics** Intervention Kontrol Overall **Included criteria:** 65 nonagenarians (men and women) recruited from a geriatric nursing home. Inclusion criteria were aged 90 and older, planning to stay in the same nursing home during the study, able to ambulate (with or without the assistance of a cane, walker, or parallel bars), able to communicate, and able and willing to provide consent. **Excluded criteria:** Exclusion criteria were acute or terminal illness, myocardial infarction in the previous 3 months, not

	able to ambulate, unstable cardiovascular disease or other medical condition, upper or lower extremity fracture in the previous 3 months, severe dementia, unwillingness to complete the study requirements or be randomized into the control or training group, neuromuscular disease, and use of drugs affecting neuromuscular function **Pretreatment:** ingen åbenlyse
Interventions	**Intervention Characteristics** Intervention ● *Intervention*: The core portion of the training session followed aerobictraining and consisted of strength training engaging themajor lower limb muscles (leg press exercise performedwith variable resistance weight machines, Technogym, Barcelona,Spain). The participants performed two to three setsof eight to 10 repetitions with resting periods of 1 to 2minutes between exercises. The eccentric phase of thequadriceps muscle contraction was approximately twotimes as long as the concentric phase. The load was graduallyincreased as the strength of each person improved(from 30% of 1 repetition maximum (1RM) at the start ofthe program to 70% of 1RM at the end), with a weekly loadincrease of approximately 5% of 1RM. Kontrol ● *Intervention*: They performed mobility exercises for 40 to 45 minutes per day, 5 days per week (Monday to Friday).
Outcomes	*Antal fald (uden bevidsthedstab)* ● **Outcome type**: DichotomousOutcome *Antal af personer som falder (uden bevidsthedstab)* ● **Outcome type**: DichotomousOutcome *Antal fald med fraktur (major injury)* ● **Outcome type**: DichotomousOutcome *Dynamisk balance* ● **Outcome type**: ContinuousOutcome *Mobilitet* ● **Outcome type**: ContinuousOutcome ● **Scale**: TUG ● **Unit of measure**: sec ● **Direction**: Lower is better ● **Data value**: Endpoint *Frygt for fald* ● **Outcome type**: ContinuousOutcome

	Dagligt aktivitetsniveau ● **Outcome type**: ContinuousOutcome *Livskvalitet* ● **Outcome type**: ContinuousOutcome *Død* ● **Outcome type**: AdverseEvent *Utilsigtede hændelser (AE)* ● **Outcome type**: AdverseEvent
Identification	**Sponsorship source:** This study was partially supported by the SwedishCouncil forWorking Life and Social Research, the Loo andHans Ostermans Foundation 2009 (2009Oste0043), theFondo de Investigaciones Sanitarias (PS09/00194) and theSpanish Ministry of Science and Innovation (RYC-2010-05957) **Country:** Spain **Setting:** Geriatric nursing home **Comments:** **Authors name:** Jose´ A. Serra-Rexach, MD, PhD, **Institution:** Geriatric Department, Hospital General Universitario Gregorio Maran˜ o´ n, Madrid, Spain; w **Email:** **Address:**
Notes	

Risk of bias table

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Low risk	Quote: "The data manager randomly assigned participants to the control or training group with a block on sex and ambu- lation ability based on the Functional Ambulation Classi- fication (FAC) scale (score 0–3 vs 4–5) 18 using a computer- generated randomization sequence."
Allocation concealment (selection bias)	Low risk	Quote: "The group assignment coding (0 for usual care and 1 for intervention) was concealed to the research group. The assessment staff was blinded to participant randomization assignment."
Blinding of participants and personnel (performance bias)	High risk	Judgement Comment: No blinding of participants.

Blinding of outcome assessment (detection bias)	Low risk	Quote: "reminded not to discuss their randomization assign- ment with assessment staff."
Incomplete outcome data (attrition bias)	Low risk	Judgement Comment: angiveligt ingen drop outs
Selective reporting (reporting bias)	High risk	Judgement Comment: QoL in protocol, not reported. ikke opgivet præcist hvor mange som faldt i intervention og kontrolgruppen - kun som en mean forskel
Other bias	Low risk	Judgement Comment: intet andet åbenlyst

Sousa 2015

Methods	**Study design:** Randomized controlled trial **Study grouping:** Parallel group
Participants	**Baseline Characteristics** Intervention Kontrol Overall **Included criteria:** Institutionalized elderly women **Excluded criteria:** Systematic engagement in regular exercise of moderate to vigorous intensity for20 minutes or more at least twice a week in the past 3 years and any medical or physical limitations for testingor training. A medical doctor checked for contraindica-tions (e.g., neuromuscular diseases, stroke, serious heartsicknesses, implant, bypass). **Pretreatment:** Not reported
Interventions	**Intervention Characteristics** Intervention ● *Intervention*: Two sessions perweek for 12 weeks. The RT protocol consisted of seven exercises: bench press, leg press, latissimus pull-down, legextension, military press, leg curl, and arm curl (intensityvaried progressively between 60% and 85% of one-repeti-tion maximum, 2–3 sets of 6–12 repetitions) Kontrol ● *Intervention*: ingen intervention
Outcomes	*Antal fald (uden bevidsthedstab)* ● **Outcome type**: DichotomousOutcome *Antal af personer som falder (uden bevidsthedstab)*

	● **Outcome type**: DichotomousOutcome *Antal fald med fraktur (major injury)* ● **Outcome type**: DichotomousOutcome *Dynamisk balance* ● **Outcome type**: ContinuousOutcome *Mobilitet* ● **Outcome type**: ContinuousOutcome ● **Scale**: TUG ● **Unit of measure**: sec ● **Direction**: Lower is better ● **Data value**: Endpoint *Frygt for fald* ● **Outcome type**: ContinuousOutcome *Dagligt aktivitetsniveau* ● **Outcome type**: ContinuousOutcome *Livskvalitet* ● **Outcome type**: ContinuousOutcome *Død* ● **Outcome type**: AdverseEvent *Utilsigtede hændelser (AE)* ● **Outcome type**: AdverseEvent
Identification	**Sponsorship source:** None **Country:** Portugal **Setting:** **Comments:** **Authors name:** Sousa **Institution:** Research Center in Sport Sciences, Health Sciences and Human Development, University of Tras-os-Montes e Alto Douro, Vila Real, Portugal **Email:** **Address:**
Notes	

Risk of bias table

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Unclear risk	Quote: "were randomly assigned to a RT group (n = 12), a MT group (n = 10), or a control group (n = 10)." Judgement Comment: ikke beskrevet
Allocation concealment (selection bias)	Unclear risk	Judgement Comment: ikke beskrevet
Blinding of participants and personnel (performance bias)	High risk	Judgement Comment: ikke beskrevet om kontrol fik sham
Blinding of outcome assessment (detection bias)	Unclear risk	Judgement Comment: ikke beskrevet
Incomplete outcome data (attrition bias)	Unclear risk	Judgement Comment: intet flowchart eller beskrivelse af dropout
Selective reporting (reporting bias)	Low risk	Judgement Comment: kun to outcomes
Other bias	Low risk	Judgement Comment: intet åbenlyst

Footnotes

Characteristics of excluded studies

Almeida 2013

Reason for exclusion	Wrong patient population

Burton 2013

Reason for exclusion	Wrong intervention

Cadore 2014

Reason for exclusion	Wrong intervention

Donat 2007

Reason for exclusion	Wrong intervention

Gonzalez 2014

Reason for exclusion	Wrong patient population

Joshua 2014

Reason for exclusion	Wrong comparator

Karinkanta 2015

Reason for exclusion	Wrong patient population

Kerse 2008

Reason for exclusion	Wrong intervention

Lee 2013

Reason for exclusion	Wrong patient population

Mulrow 1994

Reason for exclusion	Wrong intervention

Orr 2006

Reason for exclusion	Wrong patient population

Pamukoff 2014

Reason for exclusion	Wrong patient population

Reinsch 1992

Reason for exclusion	Wrong intervention

Rosendahl 2008

Reason for exclusion	Wrong intervention

Sherrington 2014

Reason for exclusion	Wrong patient population

Southard 2006

Reason for exclusion	Wrong intervention

Tuunainen 2013

Reason for exclusion	Wrong intervention

Vogler 2009

Reason for exclusion	Wrong patient population

Webber 2010

Reason for exclusion	Wrong patient population

Yamashita 2012

Reason for exclusion	Wrong intervention

Footnotes

Characteristics of studies awaiting classification

Footnotes

Characteristics of ongoing studies

Footnotes

Summary of findings tables

Additional tables

References to studies

Included studies

Nowalk 2001

Nowalk, M. P.; Prendergast, J. M.; Bayles, C. M.; D'Amico, F. J.; Colvin, G. C.. A randomized trial of exercise programs among older individuals living in two long-term care facilities: the FallsFREE program. Journal of the American Geriatrics Society 2001;49(7):859-865. [DOI: jgs49174 [pii]]

Seo 2012

Seo B.D.; Kim B.J.; Singh K.. The comparison of resistance and balance exercise on balance and falls efficacy in older females. European Geriatric Medicine 2012;3(5):312-316. [DOI:]

Serra Rexach 2011

Serra-Rexach, Jose; Bustamante-Ara, Natalia; Hierro Villaran, Margarita; Gonzalez Gil, Pedro; Sanz Ibanez, Maria,J.; Blanco Sanz, Nekane; Ortega Santamaria, Victor; Gutierrez Sanz, Natalia; Marin Prada, Ana,B.; Gallardo, Cristian; Rodriguez Romo, Gabriel; Ruiz, Jonatan R.; Lucia, Alejandro. Short-term, light- to moderate-intensity exercise training improves leg muscle strength in the oldest old: a randomized controlled trial. Journal of the American Geriatrics Society 2011; 59(4):594-602. [DOI:]

Sousa 2015

Sousa, Nelson; Mendes, Romeu. Comparison of effects of resistance and multicomponent training on falls prevention in institutionalized elderly women. Journal of the American Geriatrics Society 2015;63(2):396-7. [DOI:]

Excluded studies

Almeida 2013

Almeida, Tais L.; Alexander, Neil B.; Nyquist, Linda V.; Montagnini, Marcos L.; Santos A, ,C.S.; Rodrigues G, ,H.P.; Negrao, Carlos E.; Trombetta, Ivani C.; Wajngarten, Mauricio. Minimally supervised multimodal exercise to reduce falls risk in economically and educationally disadvantaged older adults. Journal of Aging and Physical Activity 2013;21(3):241-59. [DOI:]

Burton 2013

Burton, Elissa; Lewin, Gill; Clemson, Lindy; Boldy, Duncan. Effectiveness of a lifestyle exercise program for older people receiving a restorative home care service: a pragmatic randomized controlled trial. Clinical interventions in aging 2013;8(Journal Article):1591-601. [DOI:]

Cadore 2014

Cadore, Eduardo L.; Casas-Herrero, Alvaro; Zambom-Ferraresi, Fabricio; Idoate, Fernando; Millor, Nora; Gomez, Marisol; Rodriguez-Manas, Leocadio; Izquierdo, Mikel. Multicomponent exercises including muscle power training enhance muscle mass, power output, and functional outcomes in institutionalized frail nonagenarians. Age (Dordrecht, Netherlands) 2014;36(2):773-85. [DOI:]

Donat 2007

Donat, Hulya; Ozcan, Ayse. Comparison of the effectiveness of two programmes on older adults at risk of falling: unsupervised home exercise and supervised group exercise. Clinical rehabilitation 2007;21(3):273-83. [DOI:]

Gonzalez 2014

Gonzalez, Adam M.; Mangine, Geralt T.; Fragala, Maren S.; Stout, Jeffrey R.; Beyer, Kyle S.; Bohner, Jonathan D.; Emerson, Nadia S.; Hoffman, Jay R.. Resistance training improves single leg stance performance in older adults. Aging clinical and experimental research 2014;26(1):89-92. [DOI:]

Joshua 2014

Joshua A.M.; D'Souza V.; Unnikrishnan B.; Mithra P.; Kamath A.; Acharya V.; Venugopal A.. Effectiveness of progressive resistance strength training versus traditional balance exercise in improving balance among the elderly - a randomised controlled trial. Journal of Clinical and Diagnostic Research 2014;8(3):98-102. [DOI:]

Karinkanta 2015

Karinkanta, Saija; Kannus, Pekka; Uusi-Rasi, Kirsti; Heinonen, Ari; Sievanen, Harri. Combined resistance and balance-jumping exercise reduces older women's injurious falls and fractures: 5-year follow-up study. Age and Ageing 2015;44(5):784-9. [DOI:]

Kerse 2008

Kerse N.; Peri K.; Robinson E.; Wilkinson T.; Von, Randow M.; Kiata L.; Parsons J.; Latham N.; Parsons M.; Willingale J.; Brown P.; Arroll B.. Does a functional activity programme improve function, quality of life, and falls for residents in long term care? Cluster randomised controlled trial. BMJ 2008;337(7675):912-915. [DOI:]

Lee 2013

Lee, In-Hee; Park, Sang-Young. Balance improvement by strength training for the elderly. Journal of physical therapy science 2013;25(12):1591-3. [DOI:]

Mulrow 1994

Mulrow, C. D.; Gerety, M. B.; Kanten, D.; Cornell, J. E.; DeNino, L. A.; Chiodo, L.; Aguilar, C.; O'Neil, M. B.; Rosenberg, J.; Solis, R. M.. A randomized trial of physical rehabilitation for very frail nursing home residents. Jama 1994;271(7):519-524. [DOI:]

Orr 2006

Orr, Rhonda; de Vos, Nathan,J.; Singh, Nalin A.; Ross, Dale A.; Stavrinos, Theodora M.; Fiatarone-Singh, Maria. Power training improves balance in healthy older adults. The journals of gerontology.Series A, Biological sciences and medical sciences 2006;61(1):78-85. [DOI:]

Pamukoff 2014

Pamukoff, Derek N.; Haakonssen, Eric C.; Zaccaria, Joseph A.; Madigan, Michael L.; Miller, Michael E.; Marsh, Anthony P.. The effects of strength and power training on single-step balance recovery in older adults: a preliminary study. Clinical interventions in aging 2014;9(Journal Article):697-704. [DOI:]

Reinsch 1992

Reinsch, S.; MacRae, P.; Lachenbruch, P. A.; Tobis, J. S.. Attempts to prevent falls and injury: a prospective community study. The Gerontologist 1992;32(4): 450-456. [DOI:]

Rosendahl 2008

Rosendahl, Erik; Gustafson, Yngve; Nordin, Ellinor; Lundin-Olsson, Lillemor; Nyberg, Lars. A randomized controlled trial of fall prevention by a high-intensity functional exercise program for older people living in residential care facilities. Aging clinical and experimental research 2008;20(1):67-75. [DOI:]

Sherrington 2014

Sherrington, Catherine; Lord, Stephen R.; Vogler, Constance M.; Close, Jacqueline C. T.; Howard, Kirsten; Dean, Catherine M.; Heller, Gillian Z.; Clemson, Lindy; O'Rourke, Sandra,D.; Ramsay, Elisabeth; Barraclough, Elizabeth; Herbert, Robert D.; Cumming, Robert G.. A post-hospital home exercise program improved mobility but increased falls in older people: a randomised controlled trial. PloS one 2014;9(9):e104412. [DOI:]

Southard 2006

Southard V.. A randomized control trial of the application of efficacy training to balance assessment. Physical and Occupational Therapy in Geriatrics 2006;25(2): 51-66. [DOI:]

Tuunainen 2013

Tuunainen, Eeva; Rasku, Jyrki; Jantti, Pirkko; Moisio-Vilenius, Paivi; Makinen, Erja; Toppila, Esko; Pyykko, Ilmari. Postural stability and quality of life after guided and self-training among older adults residing in an institutional setting. Clinical interventions in aging 2013;8(Journal Article):1237-46. [DOI:]

Vogler 2009

Vogler, Constance M.; Sherrington, Catherine; Ogle, Susan J.; Lord, Stephen R.. Reducing risk of falling in older people discharged from hospital: a randomized controlled trial comparing seated exercises, weight-bearing exercises, and social visits. Archives of Physical Medicine and Rehabilitation 2009;90(8):1317-24. [DOI:]

Webber 2010

Webber, Sandra C.; Porter, Michelle M.. Effects of ankle power training on movement time in mobility-impaired older women. Medicine and science in sports and exercise 2010;42(7):1233-40. [DOI:]

Yamashita 2012

Yamashita, F.; Iwamoto, J.; Osugi, T.; Yamazaki, M.; Takakuwa, M.. Chair rising exercise is more effective than one-leg standing exercise in improving dynamic body balance: a randomized controlled trial. Journal of Musculoskeletal & Neuronal Interactions 2012;12(2):74-9. [DOI:]

Studies awaiting classification

Ongoing studies

Other references

Additional references

Other published versions of this review

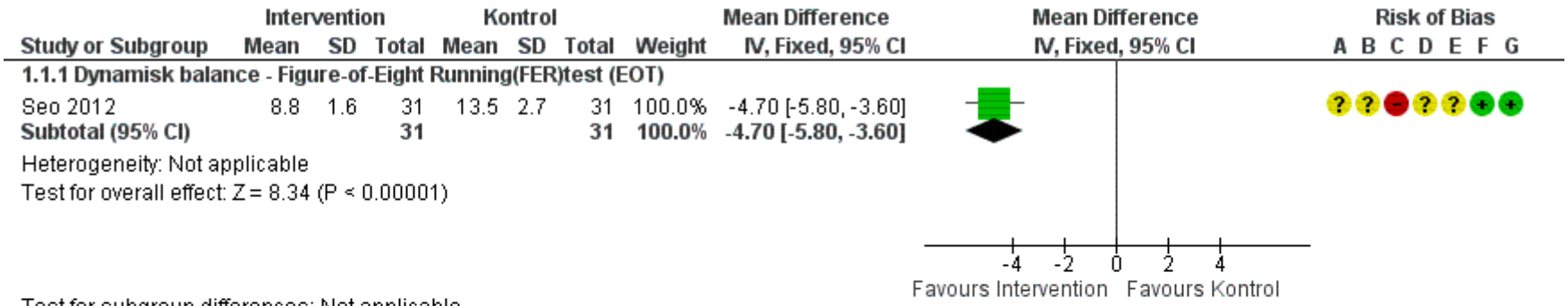
Data and analyses

1 Strenght training vs control

Outcome or Subgroup	Studies	Participants	Statistical Method	Effect Estimate
1.1 Dynamisk balance	1		Mean Difference (IV, Fixed, 95% CI)	Subtotals only
1.1.1 Dynamisk balance - Figure-of-Eight Running(FER)test (EOT)	1	62	Mean Difference (IV, Fixed, 95% CI)	-4.70 [-5.80, -3.60]
1.2 Mobilitet	3		Mean Difference (IV, Random, 95% CI)	Subtotals only
1.2.1 Mobilitet TUG (EoT)	3	103	Mean Difference (IV, Random, 95% CI)	-1.74 [-7.92, 4.43]
1.3 Frygt for fald	1		Mean Difference (IV, Fixed, 95% CI)	Subtotals only
1.3.1 Frygt for fald, FES-I (1 års FU)	1	62	Mean Difference (IV, Fixed, 95% CI)	0.40 [-4.11, 4.91]
1.4 Dagligt aktivitetsniveau	0	0	Mean Difference (IV, Fixed, 95% CI)	Not estimable
1.5 Livskvalitet	0	0	Mean Difference (IV, Fixed, 95% CI)	Not estimable
1.6 Antal fald (uden bevidsthedstab)	1	72	Risk Ratio (IV, Fixed, 95% CI)	0.95 [0.71, 1.26]
1.7 Antal af personer som falder (uden bevidsthedstab)	0		Risk Ratio (IV, Fixed, 95% CI)	No totals
1.8 Antal fald med fraktur (major injury)	0		Risk Ratio (IV, Fixed, 95% CI)	No totals

Figures

Figure 1 (Analysis 1.1)



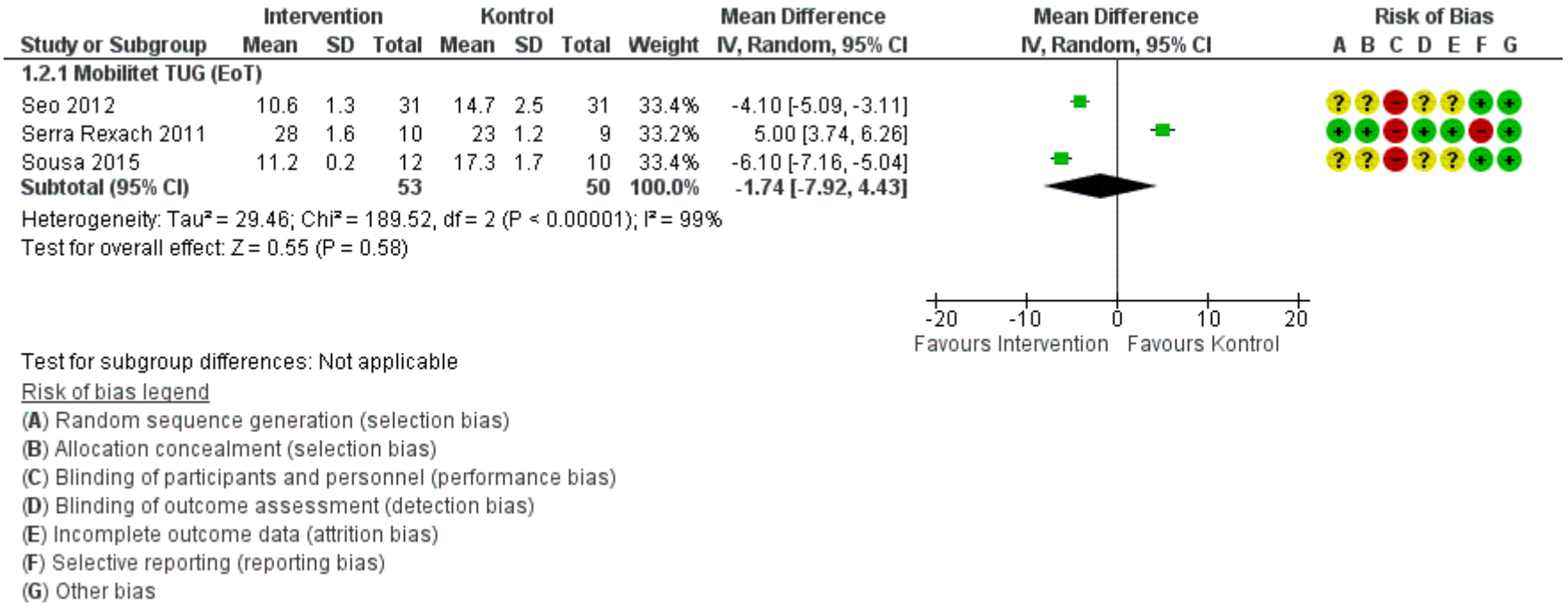
Test for subgroup differences: Not applicable

Risk of bias legend

(**A**) Random sequence generation (selection bias)
(**B**) Allocation concealment (selection bias)
(**C**) Blinding of participants and personnel (performance bias)
(**D**) Blinding of outcome assessment (detection bias)
(**E**) Incomplete outcome data (attrition bias)
(**F**) Selective reporting (reporting bias)
(**G**) Other bias

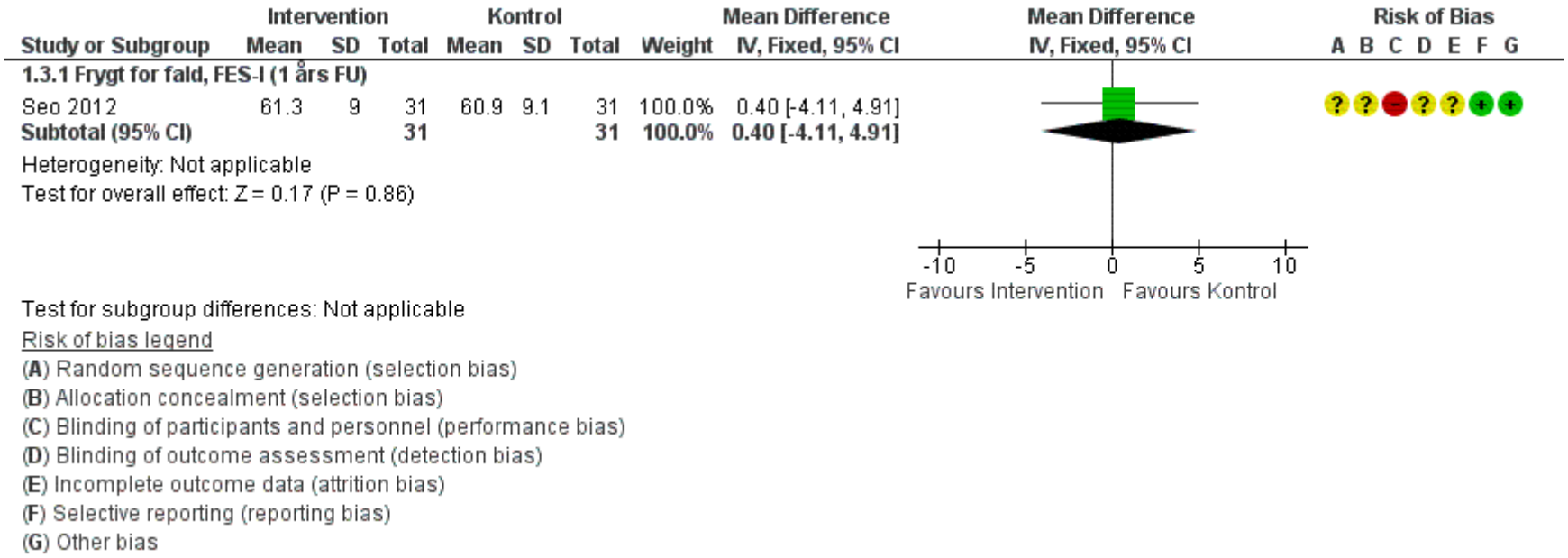
Forest plot of comparison: 1 Intervention vs Kontrol, outcome: 1.1 Dynamisk balance.

Figure 2 (Analysis 1.2)



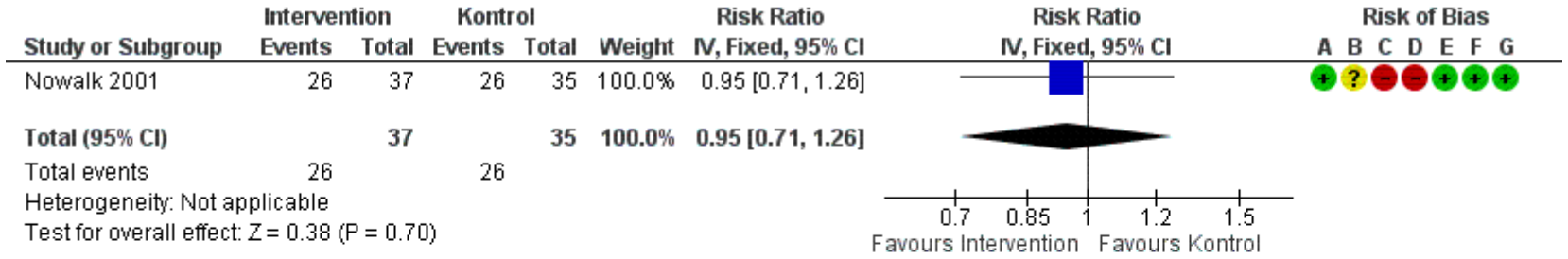
Forest plot of comparison: 1 Intervention vs Kontrol, outcome: 1.2 Mobilitet.

Figure 3 (Analysis 1.3)



Forest plot of comparison: 1 Intervention vs Kontrol, outcome: 1.3 Frygt for fald.

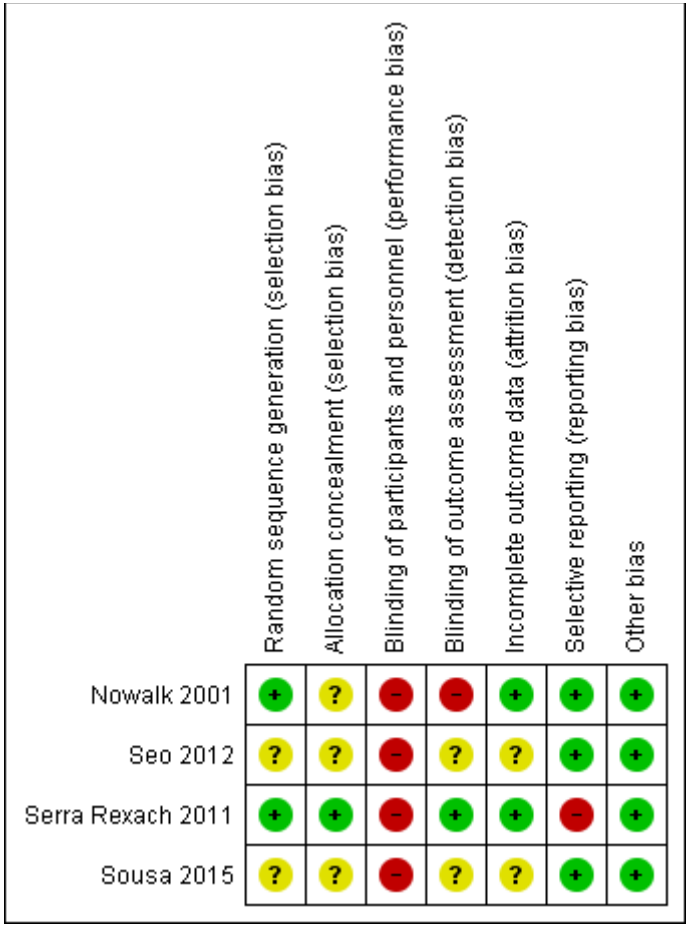
Figure 4 (Analysis 1.6)



Risk of bias legend
(**A**) Random sequence generation (selection bias)
(**B**) Allocation concealment (selection bias)
(**C**) Blinding of participants and personnel (performance bias)
(**D**) Blinding of outcome assessment (detection bias)
(**E**) Incomplete outcome data (attrition bias)
(**F**) Selective reporting (reporting bias)
(**G**) Other bias

Forest plot of comparison: 1 Intervention vs Kontrol, outcome: 1.6 Antal fald (uden bevidsthedstab).

Figure 5



Risk of bias summary: review authors' judgements about each risk of bias item for each included study.