

VEDLEGG 5: EVIDENSTABELLER

Studie	Brice 1996 (1481)	
Study quality rating (acc. to Rob)	High risk of bias No adequate sequence generation, No blinding outcome data - assessors, Incomplete outcome data not addressed	
Study description	<i>First Author</i>	Brice, Gary C.
	<i>Year of publication</i>	1996
	<i>Reference no.</i>	(1481)
	<i>Setting</i>	Senior citizen centers in western New York
	<i>Country</i>	USA
	<i>Aim (as described in the article)</i>	An evaluation of the STAYWELL program's efficacy in changing the health-related beliefs and behaviours of older adults.
	<i>Study design</i>	Controlled study, quasy experimental
	<i>Inclusion period (year start-year end)</i>	Not reported
	<i>Mean / median /minimum / max period of follow-up</i>	9 months
Intervention(s)	"Staywell" program	A comprehensive health promotion program with elements of education through discussion of personal responsibility for health, fitness, nutrition guidance, stress management, physician access, and strategies for self-care. The program is a group intervention consisting of 8 sessions, once per week a 2.5 hours.
	<i>Specify procedures</i>	
	<i>N total</i>	146
	<i>N control</i>	50
	<i>N intervention</i>	96
	<i>N lost to follow-up</i>	44 (control18, Intervention26)
Population characteristics	<i>Mean /median /range age</i>	Avg 69.5 years, range 55-83 years
	<i>Gender</i>	80,8 % female
	<i>Status (living alone or with spouse)</i>	34,2 % live alone
	<i>Etnicity</i>	Nearly exclusively white
Method	<i>Criteria for inclusion</i>	Not reported
	<i>Criteria for exclusion</i>	Not reported
Outcomes	<i>Self-perceived health, (belief in self-exposure and behavior)</i>	University of Michigan's Wellness Study Questionnaire, Medical Outcomes Study Short Form Health Survey (SF-36). Healthy Belief Index and healthy behaviour index
Results	<i>Primary endpoint of study Health beliefs and behaviours</i>	Health beliefs and behaviours: The intervention group was significantly more likely at 9-month follow up to believe that their exercise of behaviour change could actually have an impact on their health. Significantly higher scores on healthy belief index than waiting list counterparts. The prevalence at follow-up of believing very strongly in the relationship between one's behaviour and health was nearly twice as great among the intervention group. 92,4% of the intervention group elders scored higher than their average waiting list counterparts

		<p>regarding behaviours assessed by using the healthy behaviour index.</p> <p>Medication consumption: Intervention group was taking an average of one less medication than comparison 9M months after start.</p> <p>Additional effects: Intervention group twice more likely to perceive their health status as better or much better than a year ago ($p < 0,05$). Facilitation of physician access: at follow up only one of the intervention group was without a primary care physician compared to three in comparison group.</p>
Comments	<p>Authors conclusion: Compared with elders on a waiting list, study participants who experienced STAYWELL intervention expressed significantly healthier beliefs in their influence on health and reported behavioral changes indicative of a healthier lifestyle at the 9-month follow-up.</p>	
Studie	Chen 2008 (74)	
Study quality rating (acc. to Rob)	<p>High risk of bias No adequate sequence generation, No blinding outcome data - assessors, Incomplete outcome data addressed (but not fully accounted for)</p>	
Study description	First Author	Chen, Kuei-Min
	Year of publication	2008
	Reference no.	(74)
	Setting	Eight senior centers in Kaohsiung
	Country	Taiwan
	Aim (as described in the article)	To test the physical form in the elderly following participation in a 24-week Silver yoga exercise programme and also examine whether yoga course could be shortened to less than 60 minutes to fit most types of courses being conducted at activity centers for the elderly
	Study design	Controlled study; quasi experimental pre-post tests design
	Inclusion period (year start-year end)	May-Dec 2005
	Mean / median /minimum / max period of follow-up	12 and 24 weeks of follow-up
Intervention(s)	Silver-yogakurs 1	70 min complete silver-yoga training, including heating, Hatha-yoga gently stretching, relaxation and directed meditation.
	Silver-yogakurs 2	55 min silver-yoga training, without directed meditation à 15 min.
	Specify procedures	
	N total	204
	N control	72
	N intervention 1	67
	N intervention 2	65
	N lost to follow-up	15 (Int.1=3, Int.2=6, Kontr=6)
Population characteristics	Mean /median /range age	Avg 69.0 years, range 60-75 years
	Gender	72,7 % female
	Status (living alone or with spouse)	Intervention 1, 73.7% lived with their spouse in the intervention 2 67.9% lived with their spouse, while over half (53 %) in the control group did not live with their spouse
	Ethnicity	Not reported

Method	Criteria for inclusion	1) Older > 60 years who lived in the community, 2) who had not previously participated in some form of yoga training and 3) were able to walk without assistance, 4) cognitive functioning (scored 8 or higher on a "Short Portable Mental Status Questionnaire" test), 5) self-reliant or to a small extent on the help (who scored 91 or higher on / in a Barthel Index)
	Criteria for exclusion	Not reported
Outcomes	<i>Physical "fitness" which includes body composition, cardiovascular-respiratory functions, physical features and movement scale</i>	Measurement devices: BP- digital sphygmomanometer(OMRON-HEM707) Lung capacity- TruZone Peak flow meter Hand grip: digital handgrip dynamometer Lower body flexibility: sit and reach test Lower limb muscle endurance: chair stand test Balance: one leg stand test Daily living functional ability: 6m walking test Flexions and abductions: goniometer:
Results	<i>Primary endpoint of study</i>	In experiment I all variables (systolic BP decreased, and all other variables like breath holding duration, lower body flexibility, left and right shoulder flexion and abduction, left and right hip flexion and abduction, lower limb muscle endurance and walking speed, show significant improvement), except body weight and BMI were statistically significant. In experiment II, all variables, except systolic BP were statistically significant. Body weight and BMI significantly decreased, breath holding duration, lower body flexibility, left and right shoulder flexion and abduction, left and right hip flexion and abduction (p<0,05), lower limb muscle endurance<0,01), and walking speed-significant improvement. All improvements, except left shoulder flexion occurred after 12 weeks of experiment II interventions. In control group, significant changes occurred only in BMI, left and right shoulder flexion and abduction, left and right hip flexion and abduction. Not positive. BMI increased significantly, left and right shoulder flexion and abduction deteriorated.
Comments	Authors conclusion: This study revealed fairly positive outcomes for applying the silver yoga exercise programme with a sample of healthy community-dwelling young-older adults. Based on the study results it is recommended that the shortened silver yoga programme be incorporated as an exercise activity in senior activity centers or community-settings to promote the physical fitness of community dwelling older adults.	

Study	Ferreira 2005 (1046)	
Study quality rating (acc. to Rob)	High risk of bias No adequate sequence generation, No blinding outcome data - assessors, Incomplete outcome data addressed (but not fully accounted for)	
Study description	<i>First Author</i>	Ferreira, Marcela
	<i>Year of publication</i>	2005
	<i>Reference no.</i>	
	<i>Setting</i>	The Senior Center of the Sao Caetano do Sul city hall
	<i>Country</i>	Brazil
	<i>Aim (as described in the article)</i>	To evaluate the effects of physical activity level increment program, using the strategies of the "Agita Sao Paulo program" and nutritional orientation on the physical activity

	<p>score at 3 months in intervention group compared with home control. (The 1 battery item improved: standing balance time) At 6 months chair rise (p=0,07) and standing balance time (p=0,42), as well as MacArthur battery score improved. An increase in 8-m usual gait speed (p=0,44) in intervention group compared with home control.</p> <p>No statistically significant effects for PPT-8,8-m fast gait, or 6MWT at 6 months.</p> <p>At 12 months intervention group change in the MacArthur battery score and 8-m usual gait remained statistically significant compared to control group</p> <p>At 18 months, after 6 months of home exercise for both groups, no differences existed between groups on any measures.</p>																		
<i>Secondary Outcomes</i>	At 6 month testing, the average intervention group score increased, resulting in a significant group by time effect. The mental health subscale score did not change over time or with the intervention.																		
Comments	<p>Authors conclusion: The center based program initially resulted in modest improvements in physical performance. After 1 year, however, with no class supervision, there were no differences between groups.</p> <p>The lack of robust differences due to several factors including adverse health events unrelated to the exercise program and declining adherence with time.</p>																		
Study	Li 2007 (135)																		
Study quality rating (acc. to Rob)	High risk of bias No adequate sequence generation, No blinding outcome data - assessors, Incomplete outcome data not addressed																		
Study description	<table border="1"> <tr> <td><i>First Author</i></td> <td>Li, Yuhua</td> </tr> <tr> <td><i>Year of publication</i></td> <td>2007</td> </tr> <tr> <td><i>Reference no.</i></td> <td></td> </tr> <tr> <td><i>Setting</i></td> <td>2 local senior centers, Tennessee</td> </tr> <tr> <td><i>Country</i></td> <td>USA</td> </tr> <tr> <td><i>Aim (as described in the article)</i></td> <td>Effects of extended (6 and 12 months) Tai Chi exercise interventions on balance and selected motor functions for senior citizens</td> </tr> <tr> <td><i>Study design</i></td> <td>Non RCT</td> </tr> <tr> <td><i>Inclusion period (year start-year end)</i></td> <td>Not reported</td> </tr> <tr> <td><i>Mean / median /minimum / max period of follow-up</i></td> <td>6 months, 12 months</td> </tr> </table>	<i>First Author</i>	Li, Yuhua	<i>Year of publication</i>	2007	<i>Reference no.</i>		<i>Setting</i>	2 local senior centers, Tennessee	<i>Country</i>	USA	<i>Aim (as described in the article)</i>	Effects of extended (6 and 12 months) Tai Chi exercise interventions on balance and selected motor functions for senior citizens	<i>Study design</i>	Non RCT	<i>Inclusion period (year start-year end)</i>	Not reported	<i>Mean / median /minimum / max period of follow-up</i>	6 months, 12 months
<i>First Author</i>	Li, Yuhua																		
<i>Year of publication</i>	2007																		
<i>Reference no.</i>																			
<i>Setting</i>	2 local senior centers, Tennessee																		
<i>Country</i>	USA																		
<i>Aim (as described in the article)</i>	Effects of extended (6 and 12 months) Tai Chi exercise interventions on balance and selected motor functions for senior citizens																		
<i>Study design</i>	Non RCT																		
<i>Inclusion period (year start-year end)</i>	Not reported																		
<i>Mean / median /minimum / max period of follow-up</i>	6 months, 12 months																		
Intervention(s)	Tai Chi exercises for 1 hour per week for 12 months. Participants were encouraged to do the exercises at home or even a week.																		
	<i>Specify procedures</i>																		
	<i>N total</i> 47																		
	<i>N control</i> 9																		
	<i>N intervention</i> 11																		
	<i>N lost to follow-up</i> 27																		
Population	<i>Mean /median /range age</i> 71,8, SD 7,7																		

characteristics	<i>Gender</i>	16 females, 4 males
	<i>Status (living alone or with spouse)</i>	Not reported
	<i>Etnicity</i>	Not reported
Method	<i>Criteria for inclusion</i>	Not reported
	<i>Criteria for exclusion</i>	Not reported
Outcomes	<i>Balance and selected motor functions (muscular strength, flexibility, reaction time)</i>	.For four-choise RT of finger response: Finger Choice Reaction Time Test: The Visual Choice Reaction Time Apparatus Muscle strength and endurance for the lower limbs- heel: The Heel-Rise test Ancle flexibility: Leighton Flexometer Static Balance test: A timed single-foot stance w/o vision Dynamic balance test: Heel-to-toe-Walking
Results	<i>Primary endpoint of study</i>	It can be seen that with exeption of the reaction time test, the Tai Chi group showed slightly better performances than the control group for all tests, but results were not statistically significant.
Comments	Authors conclusion: The study showed that the static balance performance significantly improved after 6 months with Tai Chi intervention, the Tai Chi group maintained a higher performance at 12 month post test, but did not reach a statistically significant level.	

Study	Powers 2007 (1729)	
Study quality rating (acc. to Rob)	Unclear risk of bias Unclear - adequate sequence generation, No blinding outcome data - assessors, Yes - incomplete outcome data addressed	
Study description	<i>First Author</i>	Powers, Melissa
	<i>Year of publication</i>	2007
	<i>Reference no.</i>	
	<i>Setting</i>	Not reported
	<i>Country</i>	USA
	<i>Aim (as described in the article)</i>	To determine the impact of 12 weeks of high-intensity resistance training program on selected physical and cognitive fitness measures including physical functioning, body composition, cognitive functioning, and health related QoL among community-dwelling women over 75.
	<i>Study design</i>	RCT
	<i>Inclusion period (year start-year end)</i>	Not reported
	<i>Mean / median /minimum / max period of follow-up</i>	Not reported
Intervention(s)	Intense training 2 times per week for 12 weeks	
	<i>Specify procedures</i>	
	<i>N total</i>	19
	<i>N control</i>	6
	<i>N intervention</i>	10
	<i>N lost to follow-up</i>	3
Population	<i>Mean /median /range age</i>	82,88+-3,86 yrs, range 77-91 yrs

characteristics	<i>Gender</i>	female
	<i>Status (living alone or with spouse)</i>	Not reported
	<i>Ethnicity</i>	Not reported
Method	<i>Criteria for inclusion</i>	.75 yrs or more, written medical consent from primary care physician, no participated in resistance or strenghtening excercise in the past year, no diagnosis of unstable or managed cardiovascular disease, hypertension, or diabetes, no hystory of hospitalization for any cause in the past year, no hystory of a fall within the preceding one year, lack of neuromuscular or musculoskeletal disease or injury that prohibits participation in resistance excercise and lack of cognitive impairment great enough to interfere with giving informed consent or understanding excercise instructions.
	<i>Criteria for exclusion</i>	Not reported
Outcomes	<i>Muscular strength, functional fitness outcomes, total body composition outcomes, anthropometric abdominal obesity outcomes, cognitive outcomes, HRQoL; changes in total body strength, hand grip strength and chair stand.</i>	Waist circumference; Sagittal abdominal diameter; Health History Questionnaire; Fat Mass and Lean tissue Mass by dual-energy x-ray absorptiometry; LUNAR Radiation inc. Prodigy; Senior fitness test Hand grip strength Berg Balance scale Mini mental state examination Cognitive Linguistic Quick test SF-36 One-repetition maximum testing
Results	<i>Primary endpoint of study</i>	Maximal muscular strength, total body strength (TS) and hand grip (HG) were compared. Both intervention and control groups had significant increases in TS over the 12 week excercise period, slightly bigger in intervention group ($p < 0,04$), respectively. HG- non significant findings.
Comments	Authors conclusion: Despite the small sample size in the study significant imporvements were observed by both the high intensity resistance training group and the non weight lifting control group. Thus, high intensity resistance training is effective at increasing maximal strength, improving balance scores, reducing fat mass, and reducing waist circumference among women 75 years and over.	

Study	Reinsch 1992 (652)	
Study quality rating (acc. to Rob)	High risk of bias No adequate sequence generation, No blinding outcome data - assessors, Yes - incomplete outcome data addressed	
Study description	<i>First Author</i>	Reinsch, Sibylle
	<i>Year of publication</i>	1992
	<i>Reference no.</i>	
	<i>Setting</i>	16 senior centres, Orange county and LA county
	<i>Country</i>	USA
	<i>Aim (as described in the article)</i>	The exercise intervention foused on reducing falls by improving lower extremity muscular strength and balance. The cognitive-behavioural intervention concentrated on reducing falls by improving awareness of environmental hazards and medically related risk factors, as well as imporiving confidence and lowering anxiety.
	<i>Study design</i>	Cluster-randomisert controlled study (16 senior centres)

	<i>Inclusion period (year start-year end)</i>	Not reported
	<i>Mean / median /minimum / max period of follow-up</i>	Not reported
Intervention(s)		Four different programs were compared: exercise; cognitive-behavioural; exercise-cognitive; discussion control.
	<i>Specify procedures</i>	Exercise intervention: stand up/step up procedure Cognitive-behavioural: health and safety curriculum to prevent falls, relaxation training and videogame playing Exercise-cognitive: cognitive –behavioural protocol and exercise with relaxation and discussion of safety topics Discussion control group: health and discussion topics not specifically related to fall prevention
	<i>N total</i>	230
	<i>N control</i>	120? (Not clearly described)
	<i>N intervention</i>	
	<i>N lost to follow-up</i>	46
Population characteristics	<i>Mean /median /range age</i>	Not clearly reported
	<i>Gender</i>	185 female; 45 male
	<i>Status (living alone or with spouse)</i>	Not reported
	<i>Ethnicity</i>	3 centers predominantly Hispanic
Method	<i>Criteria for inclusion</i>	60+ years
	<i>Criteria for exclusion</i>	Not reported
Outcomes	Primary Outcome: Reduction of falls and injury severity. Secondary outcome measures included improvement of strength in the muscular functions in the lower part of the extremities and balance as well as cognitive goals, such as fear of falling and self-perceived health	Balance on one foot (in seconds); 10-stands(in seconds); Fear of falling and self rated health
Results	<i>Primary endpoint of study</i>	Falling rates of the first falls: The number of fallers was 89. 82% resulted in low level injuries, 18 % in serious injuries that required medical attention. 12.6% of the first falls was found with injury level 4 or higher at the end of the intervention year. The number of fallers during the first year of the intervention did not differ significantly among the groups. The level of severity of a second fall correlates with the level of severity of the first fall. Secondary outcomes: means on one-leg balance and 10-stands test did not differ significantly after 1 year for any of the intervention groups. Also descriptive statistics did not differ significantly after intervention.
Comments	Authors conclusion: Low attrition and high attendance indicate that intervention programs of this magnitude can be conducted in the community. The lack of significant effects of the intervention suggests that the causes of falls are numerous and may be difficult to affect.	
Study	Schaller 1996 (590)	
Study quality	High risk of bias	

rating (acc. to Rob)	No adequate sequence generation, No blinding outcome data - assessors, Incomplete outcome data not addressed (not accounted for)	
Study description	<i>First Author</i>	Schaller, Kevin J.
	<i>Year of publication</i>	1996
	<i>Reference no.</i>	
	<i>Setting</i>	Senior center
	<i>Country</i>	USA
	<i>Aim (as described in the article)</i>	To evaluate the effects of Tai Chi Chih (TCC) on balance, flexibility, mood, health status, and blood pressure in a group of community-dwelling elders.
	<i>Study design</i>	Quasi –experimental pre-posttest
	<i>Inclusion period (year start-year end)</i>	Not reported
	<i>Mean / median /minimum / max period of follow-up</i>	10 weeks a 60 min
Intervention(s)	Tai Chi Chih-training consisting of 20 simple, repetitive, non-strenuous movements that do involve no physical contact and emphasize a soft flowing continuity of motion	
	<i>Specify procedures</i>	Intervention Group (n = 24) participated in the 60-minute sessions for 10 weeks and were asked to practice at home at least three times per week. The control group (n = 22) maintained their activity level
	<i>N total</i>	46
	<i>N control</i>	22
	<i>N intervention</i>	24
	<i>N lost to follow-up</i>	na
Population characteristics	<i>Mean /median /range age</i>	70 yrs (SD=5.9)
	<i>Gender</i>	Not reported
	<i>Status (living alone or with spouse)</i>	Not reported
	<i>Education</i>	Average 14.5 years
		Control group reported that emotional problems had less of a restriction on their activities than the experimental group. Pretest data indicated that the control group was more active than experimental group.
	<i>Ethnicity</i>	Not reported
Method	<i>Criteria for inclusion</i>	>55 years,
	<i>Criteria for exclusion</i>	Not reported
Outcomes	<i>. Fall prevention factors. Balance, flexibility, mood, health status, Blood pressure.</i>	Balance: Single Limb Stance Test Trunk and hamstring flexibility: Modified Sit and Reah test Mood: Profile of Mood states inventory Health status: SF 36 Systolic and diastolic BP: manual sphygmomanometer
Results	<i>Primary endpoint of study</i>	Tai Chi Chih intervention resulted in a significant improvement in eyes open portion of balance test (p<0,05). No significant differences in the eyes closed portion of balance test. Hypothesis 2-5 were not supported (= not better on a test of flexibility, not better mood scores, not better health status, not

		lower blood pressure compared to non-practitioners)
Comments	Authors conclusion: The study suggests that TCC is a safe and enjoyable form of exercise that might improve balance in community-dwelling elders.	
Study	Shigematsu 2002 (413)	
Study quality rating (acc. to Rob)	High risk of bias No adequate sequence generation, No blinding outcome data - assessors, Yes - incomplete outcome data addressed	
Study description	<i>First Author</i>	Shigematsu, Ryosuke
	<i>Year of publication</i>	2002
	<i>Reference no.</i>	
	<i>Setting</i>	An exercise hall at a community centre for senior citizens
	<i>Country</i>	Japan
	<i>Aim (as described in the article)</i>	Effect of dance based aerobic exercise on the improvement of indices of falling in older women.
	<i>Study design</i>	Non RCT
	<i>Inclusion period (year start-year end)</i>	Not reported
	<i>Mean / median / minimum / max period of follow-up</i>	3 months
Intervention(s)	Dance-based aerobic exercise, 60 min 3 times per week for 12 weeks	
	<i>Specify procedures</i>	
	<i>N total</i>	38
	<i>N control</i>	18
	<i>N intervention</i>	20
	<i>N lost to follow-up</i>	0
Population characteristics	<i>Mean /median /range age</i>	78,6+-4,0 (range 72-87 years)
	<i>Gender</i>	women
	<i>Status (living alone or with spouse)</i>	Not reported
	<i>Etnicity</i>	Not reported
Method	<i>Criteria for inclusion</i>	. >70, living independantly in a community, being without contraindications to cardiorespiratory fitness assessment, not having regular exercise habit
	<i>Criteria for exclusion</i>	Not reported
Outcomes	<i>Balance, grip-strength, walking time and distance, hand reaction time, foot tapping</i>	.Balance: single leg balance with eyes open; single leg balance with eyes closed; functional reach Strength: keeping a half-squat position; hand grip strength (kg) Locomotion\ agility: walking around two cones (s); 3min walk Motor processing: hand reaction time (cm); foot-tapping (n\10s)
Results	<i>Primary endpoint of study</i>	Exercise group showed significantly greater single-leg balance with eyes closed (p=0,03), functional reach, and walking around two cones (p<0,05). Any changes in either

strenght or motor processing measurements were not statistically significant. No significant changes observed in control group.

Comments Authors conclusion: danced based aerobic exercisce specifically designed for older women may improve selected components of balance and locomotion/agility, thereby attenuating risks of falling.

Study	Sohng 2003 (357)	
Study quality rating (acc. to Rob)	Low risk of bias Yes - adequate sequence generation, Yes - blinding outcome data - assessors, Yes - incomplete outcome data addressed	
Study description	<i>First Author</i>	Sohng, Kyeong-Yae
	<i>Year of publication</i>	2003
	<i>Reference no.</i>	
	<i>Setting</i>	3 senior centres in residential area, Seoul
	<i>Country</i>	Korea
	<i>Aim (as described in the article)</i>	To assess the effectiveness of fall prevention exercise program (FPEP) that is designed to improve muscle strenght, balance, ankle flexibility, and IADLs, and reduce depression for the community-elderly in Korea.
	<i>Study design</i>	RCT
	<i>Inclusion period (year start-year end)</i>	January-May 2002
	<i>Mean / median /minimum / max period of follow-up</i>	8 weeks
Intervention(s)	<i>Subjects in the experimental group participated in a 4-day-per-week FPEP of 8 weeks duration</i>	Fall prevention programs such as included the movement of training series (range-of-motion exercise), seated strength training, endurance training, weight training, balance and coordination training, breathing training, relaxation techniques and health education to prevent falls by incorporating their caring skills in the home environment. 4 days a week for 8 weeks, 2 a week by direct instruction and 2 a week with a video taped program by the program instructor at each senior center.
	<i>Specify procedures</i>	
	<i>N total</i>	52
	<i>N control</i>	23
	<i>N intervention</i>	22
	<i>N lost to follow-up</i>	7 (to reduce drop out, about 2\$ gifts were provided at each of every session as reward)
Population characteristics	<i>Mean /median /range age</i>	75 yrs in intervention group and 76.4 yrs in control group
	<i>Gender</i>	Intervention group: 90,9 % female, 9.1 % male; control: 91,3 % female, 8,7 % male
	<i>Status (living alone or with spouse)</i>	Intervention group: 90, 9 % living with children, 9,1 % alone; control group: 73,9 % with children, 17.4 % alone and 8.7 % with spouse)
	<i>Education</i>	31.8 % uneducated, under middle school 50 %, above middle school 18.2 % in intervention group. 34.8 % uneducated, 48.8 % under middle school, 17.4 % above middle school in control group

	<i>Ethnicity</i>	Not reported
Method	<i>Criteria for inclusion</i>	.65+, able to ambulate independently without assistive device, absence of any unstable physical condition, evidence of terminal illness, or a history of acting out or abusive behaviour, a score of 19+ on the MMSE-K (Mini-Mental Examination-Korea), able to communicate and completion of a written consent form
	<i>Criteria for exclusion</i>	Not reported
Outcomes	<i>Physical function, muscle strength, ankle flexibility, IADL (activities of Instrumental Daily Living Scale), balance, depression</i>	Muscle strength: Nicolas Manual Muscle Tester Balance: sharpened Romberg maneuver (tandem stand) Ankle flexibility: goniometer Depression: geriatric depression scale by Yesavage, et al Instrumental activities of daily living: IADLs scale by Cho
Results	<i>Primary endpoint of study</i>	Unpaired t-test and McNemar test revealed significant differences between the two groups in the average changes for muscle strength, ankle flexibility, depression and balance. IADLs not changed.
		Fall prevention exercise program (FPEP) significantly effective in enhancing muscle strength, ankle flexibility and balance, and in reducing depression, after intervention. IADLs not changed.
Comments	Authors conclusion: Most of the outcome variables for the experimental group showed significant changes in the desired direction, except muscle strength of right ankle and IADLs, indicating that FPEP is an effective means to improve muscle strength of the lower extremity, ankle joint flexibility and balance, and to reduce depression.	
Study	Wallace 1998 (2181)	
Study quality rating (acc. to Rob)	Risk of bias unclear No adequate sequence generation, No blinding outcome data - assessors, Yes - incomplete outcome data addressed	
Study description	<i>First Author</i>	Wallace, Jeffrey I.
	<i>Year of publication</i>	1998
	<i>Reference no.</i>	
	<i>Setting</i>	Northshore senior Centre
	<i>Country</i>	USA
	<i>Aim (as described in the article)</i>	Evaluate the feasibility and efficacy of delivering an integrated disability-prevention intervention at a neighbourhood senior center. The long term goal of this research is to develop and test a cost-effective and practical community-based disability prevention intervention for older adults. The survey was conducted to evaluate how senior center users and study participants compared to older adults living in the same neighborhood.
	<i>Study design</i>	RCT
	<i>Inclusion period (year start-year end)</i>	Not reported
	<i>Mean / median /minimum / max period of follow-up</i>	6 Months
Intervention(s)	Health promotion program. Everyone in the intervention group received an exercise program, nutrition counseling and a safety assessment in the home	

	<i>Specify procedures</i>	
	<i>N total</i>	100
	<i>N control</i>	47
	<i>N intervention</i>	53
	<i>N lost to follow-up</i>	10 (8 intervention, 2 control group)
Population characteristics	<i>Mean /median /range age</i>	71,9
	<i>Gender</i>	73 % female
	<i>Status (living alone or with spouse)</i>	59 % married
	<i>Education</i>	14,1 years of education (median)
	<i>Etnicity</i>	Nearly all participants were white
Method	<i>Criteria for inclusion</i>	. 65 yrs and over, ambulatory
	<i>Criteria for exclusion</i>	-legal blindness, timed "Up and Go" test greater than 30 s; a score <24 on the Folstein Mini-mental State exam; a myocardial infarction or change in angina pattern in the past year; presence of other medical conditions that precluded or contraindicated exercise.
Outcomes	<i>Physical and mental health</i>	. Outcome measures included "the Medical Outcomes Study Short Form (SF-36) health survey", The CES-Depression scale, physical disability measured by self-reported restricted activity days and bed days
Results	<i>Primary endpoint of study</i>	Nearly all outcome measures improved over the 6-month period in the intervention group and declined in control group. Significant differences in unadjusted data were present between intervention and control group at 6 months in 7 of 8 SF-36 subscales and in the CES-D scale. Scores on the remaining SF-36 subscale and in bed days also favored the intervention group, but did not reach statistical significance. The overall adjusted effect sizes for SF-36 subscales ranged from 10-30 %, effect sizes were similar for both physical and psychosocial oriented SF-36 subscales.
Comments	Authors conclusion: The use of well accepted facilities in the community, such as senior centers, to offer effective health promotion and disability prevention programs may be an important opportunity to reach large segments of the older adult population.	

Study	Williams 1998 (2187)	
Study quality rating (acc. to Rob)	Risk of bias unclear No adequate sequence generation, No blinding outcome data - assessors, Yes - incomplete outcome data addressed	
Study description	<i>First Author</i>	Williams, Alice L.
	<i>Year of publication</i>	1998
	<i>Reference no.</i>	
	<i>Setting</i>	1 senior centre
	<i>Country</i>	Texas, USA
	<i>Aim (as described in the article)</i>	To examine the impact of a specific type of activity-taught first from a traditional recreational perspective, and then from a more innovative altruistic orientation –on the mental health of older adults at a senior center.
	<i>Study design</i>	Cross-over-study

	<i>Inclusion period (year start-year end)</i>	Not reported
	<i>Mean / median /minimum / max period of follow-up</i>	Not reported
Intervention(s)		Two different activities at the senior center. The first two weeks the individuals participated in a craft project, 75 min per week for 2 weeks. This was followed by 1-2 weeks of "washout". Finally came a period of altruistic activities.
	<i>Specify procedures</i>	Questionnaires measuring self-esteem and life satisfaction completed before craft project. Along with the collection data, i.e., open ended questions on the participants' likes and dislikes pertaining to recreation activities.
	<i>N total</i>	12
	<i>N control</i>	
	<i>N intervention</i>	12
	<i>N lost to follow-up</i>	
Population characteristics	<i>Mean /median /range age</i>	
	<i>Gender</i>	100 % women
	<i>Status (living alone or with spouse)</i>	-11 widows, 1 single
	<i>Education</i>	7 less than high school, 5 high school diploma or General Equivalency Diploma
	<i>Etnicity</i>	4 Caucasian, 4 Hispanic, 3 African-American, 1 Indonesian
Method	<i>Criteria for inclusion</i>	Not reported
	<i>Criteria for exclusion</i>	Not reported
Outcomes	<i>Life satisfaction and self-esteem</i>	Well-being measures: Neugarten and Havighurst's Life Satisfaction Index-Z and Rosenberg's Self_Esteem Scale. Open-ended questions were also administered in an attempt to find out what they liked or did not like about the intervention.
Results	<i>Primary endpoint of study</i>	An average increase of 4.14 in the life satisfaction score was found after the altruistic activity in comparison to the recreational activity (p=0,04).No significant change in the self esteem score after each of the two activities.
Comments	Authors conclusion: The opportunity to help others appeared to have a positive impact on the life satisfaction of elderly women at a senior center.	

VEDLEGG 6: GRADE- OG "SUMMARY OF FINDINGS" TABELLER

PHYSICAL EXERCISE PROGRAMS

Self perceived health

Exercise programs compared to discussion group for elderly people living at home

Patient or population: elderly people living at home

Intervention: exercise programs

Comparison: discussion group

Outcomes	Self perceived health after 12 months				Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
	Discussion control group, N=23	Exercise, N= 37	Cognitive, N=32	Exercise/cognitive, N=50				
Self perceived health					Not estimable	142 (1 study)	□○○○ very low ^{1,2,3}	No significant difference in the intervention groups compared to control group
	Mean 2,3 (SD 0,7), after 12 months	Mean 2,3 (SD 0,8), after 12 months	Mean 1,9 (SD 0,8), after 12 months	Mean 2,3 (SD 0,7), after 12 months				
	2,3 (SD 0,9) Mean diff: 0,00	2,1 (SD 0,7) Mean diff: 0,16	14,1 (SD 0,9), Mean diff: 0,37	2,0 (SD 0,7) Mean diff: 0,26				No p-value given, not possible to estimate confidence intervals
	See comment	See comment	See comment	See comment				

¹ Lack of allocation concealment and blinding

² Single study

³ Sparse data, n=142

Reinsch 1992

Health promotion program compared to no intervention for elderly people living at home

Patient or population: elderly people living at home

Intervention: health promotion program

Comparison: no intervention

Outcomes	Levels of Functioning on SF-36 Subscales after 6 months		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
	No intervention, N=47	Health promotion program, N=53				
SF-36 Self perceived health	Mean 70,5	Mean 79,2	Not estimable	100 (1 study)	□○○○ very low ^{1,2,3}	Significant improvement in intervention group. P-value 0,001

GRADE Working Group grades of evidence

High quality: Further research is very unlikely to change our confidence in the estimate of effect.

Moderate quality: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.

Low quality: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.

Very low quality: We are very uncertain about the estimate.

¹ Lack of allocation concealment and blinding

² Single study

³ Sparse data, n=100

Wallace 1998

Quality of life

Center-based exercise compared to exercise at home for elderly people living at home

Patient or population: elderly people living at home

Intervention: center-based exercise

Comparison: exercise at home

SF-36	SF-36 mental health after 6 months		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
	Exercise at home, N=75	Center-based exercise, N=80				
SF-36 mental health	Baseline: Mean 77.5 (SD 16.2)	Baseline: Mean 77.7 (SD 16.0)	Not estimable	155 (1 study)	□□○○○ low ^{1,2}	Within group changes not significant Intervention: P value= 0.707 Control: P value = 0.656
	After 6 months: Mean 82.7 (SD 14.0)	After 6 months: Mean 76.7 (SD 15.9)				

¹ Single study

² Sparse data, n=155

King 2002

High-intensity resistance training compared to non-weight lifting for elderly people living at home

Patient or population: elderly people living at home

Intervention: high-intensity resistance training

Comparison: non-weight lifting

Outcomes	SF-36 mental health after 12 weeks		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
	Non-weight lifting, N= 5	High-intensity resistance training, N=9				
Quality of life (by SF-36 mental health)	See comment	See comment	Not estimable	19 (1 study)	□○○○○ very low ^{1,2}	12 weeks Very small study. Difficult to report meaningful data

¹ Single study

² Sparse data, n=19

Powers 2007

Health promotion program compared to no intervention for elderly people living at home

Patient or population: elderly people living at home

Intervention: health promotion program

Comparison: no intervention

Outcomes	SF-36 after 6 months		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
	No intervention, N=47	Health promotion program, N=53				
SF-36 mental health	Baseline = 75.7	Baseline= 81.4	Not estimable	100 (1 study)	□○○○ very low ^{1,2,3}	Significant improvement in intervention group P value = 0.001
	After 6 months = 74.8	After 6 months= 82.9				
SF-36 Social function	Baseline= 78.9	Baseline = 88.1	Not estimable	100 (1 study)	□○○○ very low ^{1,2,3}	Significant improvement in intervention group P value = 0.006
	After 6 months= 80.5	After 6 months = 91.3				

GRADE Working Group grades of evidence

High quality: Further research is very unlikely to change our confidence in the estimate of effect.

Moderate quality: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.

Low quality: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.

Very low quality: We are very uncertain about the estimate.

¹ Lack of allocation concealment and blinding

² Single study

³ Sparse data, n=100

Wallace 1998

Social function

Tai Chi Chii compared to no intervention for elderly people living at home

Patient or population: elderly people living at home

Intervention: Tai Chi Chii

Comparison: no intervention

Outcomes	SF-36 social functioning		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
	no intervention N=22	Tai Chi Chii (N=24)				
SF-36 social functioning - not clearly reported	See comments	See comments	Not estimable	46 (1 study)	□○○○ very low ^{1,2}	Lack of reported data

GRADE Working Group grades of evidence

High quality: Further research is very unlikely to change our confidence in the estimate of effect.

Moderate quality: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.

Low quality: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.

Very low quality: We are very uncertain about the estimate.

¹ Small sample, n=46

² Single study, lack of data reporting

Schaller 1996

Fall

Exercise programs compared to discussion group for elderly people living at home

Patient or population: elderly people living at home

Intervention: exercise programs

Comparison: discussion group

Outcomes	Faller rate after 12 months				Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
	Discussion control group, N=?	Exercise, N=?	Cognitive, N=?	Exercise/cognitive, N=?				
Faller rate (as identified by the first fall)	Faller rate 19.1% (17 fallers)	Faller rate 24.7% (22 fallers)	Faller rate 19.1% (17 fallers)	Faller rate 37.1% (33 fallers)	Not estimable	230 (1 study)	□○○○○ very low ^{1,2,3}	P-value or CI not reported Difficult to interpret and report the results
	See comment	See comment	See comment	See comment				

GRADE Working Group grades of evidence

High quality: Further research is very unlikely to change our confidence in the estimate of effect.

Moderate quality: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.

Low quality: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.

Very low quality: We are very uncertain about the estimate.

¹ Lack of allocation concealment and blinding

² Single study

³ Sparse data, n=230 divided into 4 groups (numbers not specified)

Reinsch 1992

Balance

Center-based exercise compared to exercise at home for elderly people living at home

Patient or population: elderly people living at home

Intervention: center-based exercise

Comparison: exercise at home

Outcomes	Standing balance after 6 months		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
	Exercise at home, N=75	Center-based exercise, N=80				
Standing balance	Baseline: Mean 10.8 (SD 5.4)	Baseline: Mean 9.8 (SD 5.6)	Not estimable	155 (1 study)	□□○○ low ^{1,2}	Dropouts: 13 home control, 12 intervention Within group changes Intervention: P value= 0.042 = significant Control: P value = 0.235 = not significant
	After 6 months: Mean 12.2 (SD 6.1)	After 6 months: Mean 13.3 (SD 5.4)				

¹ Single study

² Sparse data, n=155

King 2002

Tai Chi exercise compared to no intervention for elderly people living at home

Patient or population: elderly people living at home

Intervention: Tai Chi exercise

Comparison: no intervention

	Balance after 6 and 12 months		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
	No intervention, N=9	Tai Chi exercise, N=11				
Static balance			Not estimable	20 (1 study)	□○○○ very low ^{1,2}	Significant improvement in Tai Chi group F(1.18) = 7.01, p<0.05 after 6 months. No significant improvement after 12 months
	See comment	See comment				
Dynamic balance			Not estimable	20 (1 study)	□○○○ very low ^{1,2}	Significant improvement in Tai Chi group F(1.18) = 4.73, p<0.05 after 6 months. No significant improvement after 12 months
	See comment	See comment				

¹ Small sample, n=20

² Single study

Li 2007

Exercise programs compared to discussion group for elderly people living at home

Patient or population: elderly people living at home

Intervention: exercise programs

Comparison: discussion group

Outcomes	Balance after 12 months				Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
	Discussion control group, N=16	Exercise, N= 17	Cognitive, N=26	Exercise/cognitive, N=43				
Balance on one foot	Mean 13.5 (SD 8.3), after 12 months 10.4 (SD 10.5) Mean diff: - 3.16	Mean 15.2 (SD 12,7), after 12 months 17,0 (SD 10,6) Mean diff: 1.78	Mean 14.8 (SD 11.6), after 12 months 14.1 (SD 12.3), Mean diff: - 0.74	Mean 14.2 (SD 10.8), after 12 months 16.6 (SD 12.4), Mean diff: = 2.34	Not estimable	102 (1 study)	□○○○ very low ^{1,2,3}	Higher positive mean difference scores reflect improvement and negative values reflect a decline in balancing time. No significant difference for any intervention groups No p-value given, not possible to estimate confidence intervals
	See comment	See comment	See comment	See comment				

¹ Lack of allocation concealment and blinding

² Single study

³ Sparse data, n=102

Reinsch 1992

Tai Chi Chii compared to no intervention for elderly people living at home

Patient or population: elderly people living at home

Intervention: Tai Chi Chii

Comparison: no intervention

Outcomes	Balance after 12 weeks		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
	no intervention, N=22	Tai Chi Chii (TCC), N=24				
Balance	Pre test, M: 13.14, (SD13.84)	Pre test, M: 7.17, (SD 7.01)	Not estimable	46 (1 study)	□○○○ very low ^{1,2}	Measured by the Single Limb Stand Timed Test 11 weeks after baseline measure. TCC: Score improved 50% from pre test to post test Control: Score decreased by 2 % from pre test to post test
	Post test, M: 12.85, (SD 15.29)	Post test, M: 10.81, (SD 12.38)				

¹ Small sample, n=46

² Single study

Schaller 1996

Dance-aerobic compared to no intervention for elderly people living at home

Patient or population: elderly people living at home

Intervention: dance-aerobic

Comparison: no intervention

Outcomes	Balance after 3 months		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
	No intervention, N=18	Dance-aerobic, N=20				
Balance single leg with eyes open	Pre test: 17.9 (SD 13.8)	Pre test: 23.1 (SD 18.1)	Not estimable	38 (1 study)	□○○○ very low ^{1,2}	Measured after 3 months No significant difference, pre/post
	Post test: 16.6 (SD 15.8)	Post test: 24.6 (SD 17.3)				
Balance single leg with eyes closed	Pre test: 6.1 (SD 10.2)	Pre test: 2.8, (SD 1.2)	Not estimable	38 (1 study)	□○○○ very low ^{1,2}	Measured after 3 months Significant improvement in exercise group p<0.05
	Post test: 5.3 (SD 5.3)	Post test: 4.1 (SD 2.0)				

¹ Not representative study sample

² Single study

Shigematsu 2002

Exercise program compared to no intervention for elderly people living at home

Patient or population: elderly people living at home

Intervention: exercise program

Comparison: no intervention

Outcomes	Balance		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
	Control group, N=23	Exercise program, N=22				
Balance with eyes open (Tandem-stand)	Compl pre-test: 18	Not compl pre-test: 5	Not estimable	52 (1 study)	□○○○ very low ^{1,2}	No significant difference within control group, but significant improvement of balance in experimental group (p=0.39)
	Compl pre-test: 16	Not compl pre-test: 6				
	Compl post-test: 19	Not compl post-test: 4				
	Compl post-test: 21	Not compl post-test: 1				
Balance with eyes closed (Tandem-stand)	Compl pre-test: 16	Not compl pre-test: 7	Not estimable	52 (1 study)	□○○○ very low ^{1,2}	No significant difference within control group, but significant improvement of balance in experimental group (p=0.023)
	Compl pre-test: 14	Not compl pre-test: 8				

Compl post-test:	Not compl post-test:
17	6
Compl post-test:	Not compl post-test:
20	2

GRADE Working Group grades of evidence

High quality: Further research is very unlikely to change our confidence in the estimate of effect.

Moderate quality: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.

Low quality: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.

Very low quality: We are very uncertain about the estimate.

¹ Single study

² Sparce data, n=52

Sohng 2003

Muscle strength

Center-based exercise compared to exercise at home for elderly people living at home

Patient or population: elderly people living at home

Intervention: center-based exercise

Comparison: exercise at home

Outcomes	Muscle strenght after 6 months		Relative effect (95% CI)	No of Partici- pants (studies)	Quality of the evidence (GRADE)	Comments
	Exercise at home, N=75	Center-based exercise, N=80				
Muscle strenght (by Chair rise (s))	Baseline: Mean 12.0 (SD 3.7)	Baseline: Mean 12.9 (SD 4.6)	Not estima- ble	155 (1 study)	□□○○○ low ^{1,2}	Dropouts: 13 home control, 12 inter-vention Within group changes Intervention: P value: 0.007 = signifi- cant Control: P value: 0.553 = not signifi- cant
	After 6 months: Mean12.0 (SD 4.1)	After 6 months: Mean10.9 (SD 3.0)				

¹ Single study

² Sparce data, n=155

King 2002

Tai Chi exercise compared to no intervention for elderly people living at home

Patient or population: elderly people living at home

Intervention: Tai Chi exercise

Comparison: no intervention

	Muscle strenght after 6 and 12 months	Relative effect	No of Parti- cipants	Quality of the evidence	Comments
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	No intervention, N=9	Tai Chi exercise, N=11	(95% CI)	(studies)	(GRADE)	
Muscle strenght (Heel-rise, as described by Lunsford and Perry)	See comment	See comment	Not estimable	20 (1 study)	□○○○ very low ^{1,2}	No significant difference revealed between the two groups. No measures reported in the article

¹ Small sample, n=20

² Single study

Li 2007

High-intensity resistance training compared to non-weight lifting for elderly people living at home

Patient or population: elderly people living at home

Intervention: high-intensity resistance training

Comparison: non-weight lifting

Outcomes	Muscle strenght after 12 weeks	Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
	Non-weight lifting N= 5 High-intensity resistance training, N=9				
Muscle strenght	See comment See comment	Not estimable	19 (1 study)	□○○○ very low ^{1,2}	12 weeks Very small study. Difficult to report meaningful data

¹ Single study

² Sparce data, n=19

Powers 2007

Exercise programs compared to discussion group for elderly people living at home

Patient or population: elderly people living at home

Intervention: exercise programs

Comparison: discussion group

Outcomes	Muscle strength, legs after 12 months	Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
	Discussion group, N= Exercise ,N= 28 Cognitive, N=25 Exercise/cognitive, N=48				
Muscle strenght by	Mean 26 (SD, 9.8), Mean 25.5 (SD 7.9), Mean 24.4 (SD 9.9), Mean 25.5 (SD 8.9),	Not estimable	120 (1 study)	□○○○ very	Muscle strength measured by Time to

10 stands, chair rise	after 12 months:	after 12 months:	after 12 months	after 12 months	low ^{1,2,3}	stand-up 10 times from a standard chair without the use of hands No significant difference for any intervention groups. No p-value given, not possible to estimate confidence intervals
	19.1 (SD, 13.7).	18.3 (SD 06.8)	22.8 (SD 22.3),	20,8 (SD 08.1)		
	Mean diff: -7.67	Mean diff: -6.86	Mean diff: -6.30	Mean diff: -4.53		
	See comment	See comment	See comment	See comment		

¹ Lack of allocation concealment and blinding

² Single study

³ Sparse data, n=120

Reinsch 1992

Dance-aerobic compared to no intervention for elderly people living at home

Patient or population: elderly people living at home

Intervention: dance-aerobic

Comparison: no intervention

Outcomes	Muscle strength (leg/thigh) after 3 months		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
	No intervention, N=18	Dance-aerobic, N=20				
Muscle strength (by keeping a half-squat position)	Pre test 37.6 (SD 20.7)	Pre test, 33.1 (SD 18.9)		38	□○○○○	Measured after 3 months
	Post test: 34.9 (SD 20.4)	Post test 30.8 (SD 17.7)	Not estimable	(1 study)	very low ^{1,2}	No significant difference, pre/post in either groups

¹ Not representative study sample

² Single study

Shigematsu 2002

Exercise program compared to no intervention for elderly people living at home

Patient or population: elderly people living at home

Intervention: exercise program

Comparison: no intervention

Outcomes	Muscle strength		Difference M (SD)	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
	Control group, N=23	Exercise program, N=22				

Muscle strength, knee extensor, Lt (Kg)	pre-test Lt: 13.60 (SD 3.03)	Pre-test Lt: 14.38 (SD 2.87)	* -0.83 (2.17)	52	□○○○	Significant difference between exercise and control group (p=0.002)
	Post-test Lt: 13.77 (SD 3.26)*	Post-test Lt: 16.59 (SD 2.70)**	** 2.21 (2.26)	(1 study)	very low ^{1,2}	
Muscle strength, knee flexor, Rt (Kg)	Pre-test Rt: 12.98 (SD 3.27)	Pre-test Rt: 14.48 (SD 2.34)	*** -0.30 (1.70)			
	Post-test Rt: 13.68 (SD 3.09)***	Post-test Rt: 16.59 (SD 2.48)****	**** 2.11 (2.90)			

GRADE Working Group grades of evidence

High quality: Further research is very unlikely to change our confidence in the estimate of effect.

Moderate quality: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.

Low quality: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.

Very low quality: We are very uncertain about the estimate.

¹ Single study

² Sparse data, n=52

Sohng 2003

Endurance

Yoga exercises compared to no intervention for elderly people living at home

Patient or population: elderly people living at home

Intervention: yoga exercises

Comparison: no intervention

Outcomes	no intervention N=66		yoga exercises (E1) N=57	Differences among pre and post tests	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
Lower limb muscle endurance (time/min)	Mean 28.36	Mean 30.79		p=0.025	123 (1 study)	□○○○	very low ^{1,2}
Walking speed (seconds)	Mean 7.08	Mean 6.43		P=0.004	123 (1 study)	□○○○	very low ^{1,2}

¹ Not representative study sample

² Single study

Chen 2008

Center-based exercise compared to exercise at home for elderly people living at home

Patient or population: elderly people living at home

Intervention: center-based exercise

Comparison: exercise at home

	Muscle endurance after 6 months		Difference	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
	Exercise at home, N=75	Center-based exercise, N=80				
Muscle endurance, 8 m usual gait (m/s)	Baseline: Mean 1.01 (SD 0.18)	Baseline: Mean 0.96 (SD 0.19)	Not estimable	155 (1 study)	□□○○ low ^{1,2}	Significant changes after 6 months within both groups. Intervention: p=0.044. Control: p= 0.001
	After 6 months: Mean 1.07 (SD 0.18)	After 6 months: Mean 1.03 (SD 0.22)				

¹ Single study

² Sparse data, n=155

King 2002

Dance-aerobic compared to no intervention for elderly people living at home

Patient or population: elderly people living at home

Intervention: dance-aerobic

Comparison: no intervention

Outcomes			Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
	No intervention, N=18	Dance-aerobic, N=22				
Endurance – walking around 2 cones (s)	Baseline: Mean 32.4, SD 8.4	Baseline: Mean 31.8, SD 7.3	Not estimated	40 (1 study)	□○○○ very low ^{1,2}	Within exercise group significant changes after 3 months p=0.003.
	Post test: Mean 33.6 (SD 9.0)	Post test Mean 23.7, SD 5.0				
Endurance – 3 minute walk (m)	Baseline: Mean 204.6, SD 16.8	Baseline: Mean 212.4, SD 27.9	Not estimated	40 (1 study)	□○○○ very low ^{1,2}	No significant changes within groups
	Post test: Mean 212.0 (SD 16.1)	Post test Mean 193.9, SD 39.5				

GRADE Working Group grades of evidence

High quality: Further research is very unlikely to change our confidence in the estimate of effect.

Moderate quality: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.

Low quality: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.

Very low quality: We are very uncertain about the estimate.

¹ Not representative study sample

² Single study

Shigematsu 2002

Activities of daily living

Center-based exercise compared to exercise at home for elderly people living at home

Patient or population: elderly people living at home

Intervention: center-based exercise

Comparison: exercise at home

Outcomes	ADL (PPT-8) after 6 months		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
	Exercise at home, N=75	Center-based exercise, N=80				
ADL measured by PPT-8 (0-32)	Baseline Mean 24.1 (SD 3.4), After 6 months: 24.7 (SD 3.6)	Baseline Mean 23.7 (SD 3.6), After 6 months: 24.6 (SD 3.8)	Not estimable	155 (1 study)	□□○○ low ^{1,2}	Within group changes not significant Intervention: P value= 0.273 Control: P value = 0.191

¹ Single study

² Sparse data, n=155

King 2002

Exercise program compared to no intervention for elderly people living at home

Patient or population: elderly people living at home

Intervention: exercise program

Comparison: no intervention

Outcomes	ADL after 8 weeks		Difference	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
	No intervention, N=23	Exercise program, N=22				
ADL (Lawton and Brody's scale range 0-18)	Pre-test 16.96 (SD 2.70)	Pre-test 17.67 (SD 0.73)	Diff Control	52 (1 study)	□□○○ low ^{1,2}	No significant difference between intervention and control (p=0.61) Lost to follow up = 7
	Post-test 17.0 (SD 1.81)	Post-test 17.33 (SD 1.98)	2.67	Diff Exp		
	See comment	See comment	0.033 (SD 2.13)			

GRADE Working Group grades of evidence

High quality: Further research is very unlikely to change our confidence in the estimate of effect.

Moderate quality: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.

Low quality: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.

Very low quality: We are very uncertain about the estimate.

¹ Single study

² Sparse data, n=52

HEALTH PROMOTIONAL PROGRAMS (EDUCATION)

Self perceived health

Health promotion program compared to no intervention for elderly people living at home

Patient or population: elderly people living at home

Intervention: health promotion program

Comparison: no intervention

Outcomes	Self perceived health after 9 months		Effect-size (95% CI)	No of Partici- pants (studies)	Quality of the evidence (GRADE)	Comments
	No intervention, N=32	Health promotion program, N= 70				
Self perceived health (healthy beliefs)	Baseline Mean 19.71 (SD 11.0)	Baseline: Mean 20.92 (SD 9.77)	52.9% vs 28.1%, PR; 95% CI=1.76; 1.09 to 2.83 (1 study)	102	□○○○ very low ^{1,2}	Significant diffe- rence, p<0,05
	After 9 months: 18.69 (SD 9.60)	After 9 months: 25.82 (SD 9.42)				

*The basis for the **assumed risk** (e.g. the median control group risk across studies) is provided in footnotes. The **corresponding risk** (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).

CI: Confidence interval; RR: Risk ratio;

GRADE Working Group grades of evidence

High quality: Further research is very unlikely to change our confidence in the estimate of effect.

Moderate quality: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.

Low quality: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.

Very low quality: We are very uncertain about the estimate.

¹ Dropout>20% (not accounted)

² Single study

Brice 1996

Physical activity level

Orientation programs compared to no intervention/participation for elderly people living at home

Patient or population: elderly people living at home

Intervention: orientation programs

Comparison: no intervention/participation

Outcomes	Physical activity level after 12 weeks of nutritional and physical orientation				Relative effect (95% CI)	No of Partici- pants (studies)	Quality of the evidence (GRADE)	Comments
	Control,	Nutrition,	Nutrition+PA,	Physical activity,				

	N=15	N=17	N=17	N=13				
Physical activity level (by International Physical Activity Questionnaire)	Pre 3.4	Pre 3.3	Pre 3.4	Pre 3	Not estimable	62 (1 study)	□○○○	Significant increase pre-post on frequency within intervention groups p=0.05. Difference in relation to control group p=<0.05
	Post 2.9	Post 4.2	Post 5.0	Post 5.0				

*The basis for the **assumed risk** (e.g. the median control group risk across studies) is provided in footnotes. The **corresponding risk** (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).

CI: Confidence interval; RR: Risk ratio;

GRADE Working Group grades of evidence

High quality: Further research is very unlikely to change our confidence in the estimate of effect.

Moderate quality: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.

Low quality: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.

Very low quality: We are very uncertain about the estimate.

¹ Not representative study sample

² Single study

Ferreira 2005

CREATIVE- AND/OR CRAFT ACTIVITIES

Quality of life

Creative activities compared to routine activities for elderly people living at home

Patient or population: elderly people living at home

Settings:

Intervention: creative activities

Comparison: routine activities

Outcomes		Results	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
	Routine activities, N=28				
	Creative activities, N=29				
Life satisfaction – (quality of life)	See comment	F(1,55)=0.18, p=0.52	57 (1 study)	□○○○ very low ^{1,2,3}	Results not given separately for intervention and control group

¹ No blinding, groups not equal at baseline

² Single study

³ Small sample size, n=57

Flood 2005

Altruistic activity compared to recreational activity for elderly people living at home

Patient or population: elderly people living at home

Intervention: altruistic activity

Comparison: recreational activity

Outcomes			Difference	No of Partici- pants (studies)	Quality of the evidence (GRADE)	Comments
	Recreational activity	Altruistic activity				
Life satis- faction			4,14 (SD 4,18), p=	7	□○○○	Mean pretest 19, at posttest 21 (with 24 being maximum score). One group crossover study
	See comment	See comment	0.04	(1 study)	very low ^{1,2,3}	

GRADE Working Group grades of evidence

High quality: Further research is very unlikely to change our confidence in the estimate of effect.

Moderate quality: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.

Low quality: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.

Very low quality: We are very uncertain about the estimate.

¹ One group, crossover design

² Single study

³ Sparse data, n=12 (reported outcome n=7)

Williams 1998
