Wesentliche Gesundheitsziele bei der Betreuung älterer Personen

– Hohe Lebensqualität

– Hoher Grad an Selbstständigkeit und Unabhängigkeit

– Verhinderung von Institutionalisierung

– Zurechtkommen mit Krankheiten

– Verhinderung von Komplikationen und Komorbiditäten

Veränderungen im Alter

Fried & Walston, 1998, zitiert nach Walston, 2004
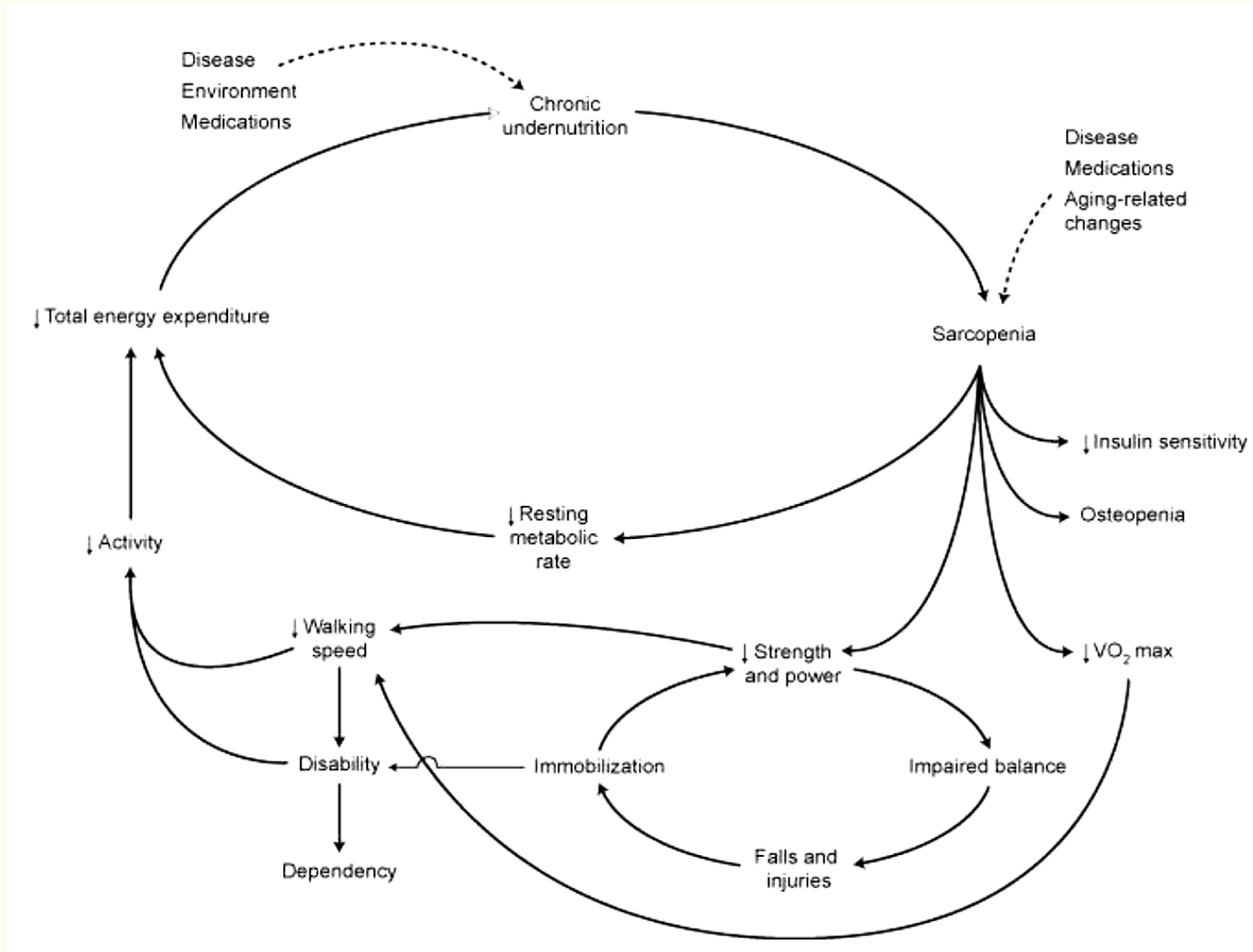
Frailty – Definition

Zustand erhöhter Vulnerabilität gegenüber Stressoren, entstanden durch Funktionsverlust in mehreren physiologischen Systemen, der zu ungünstigen gesundheitlichen Konsequenzen führt

Nach: Fried, J Gerontol 2001
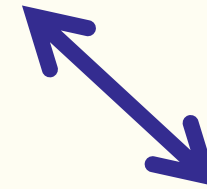
Sarkopenie ↔ Malnutrition

Frailty
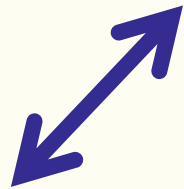
Chronische Inflammation

Ganzheitliches Konzept von Frailty

Physical frailty
Decline in:
- Nutrition
- Mobility
- Physical activity
- Strength
- Endurance
- Balance
- Sensory functions

Psychological frailty
Decline in:
- Cognition
- Mood
- Coping

Social frailty
Decline in:
- Social relations
- Social support

Nach: Gobbens, Luijkx, Wijnen-Sponselee & Schols, 2010

CHS Frailty Index

(Cardiovascular Health Study)

– ungewollter Gewichtsverlust

– subjektive Erschöpfung

– niedrige körperliche Aktivität

– langsame Gehgeschwindigkeit und

– Schwäche (Handkraftmessung)

frail: drei oder mehr Symptome – Vollbild des Phänotyps von Frailty
prefrail: ein bis zwei Symptome – Zwischen- oder Vorstadium zu Frailty
robust: keine Symptome für Frailty.

Fried et al., J Gerontol A Biol Sci Med Sci 2001

SHARE-FI CALCULATOR: FEMALES

SHARE – Frailty Index

Survey of Health, Ageing and Retirement in Europe

EXHAUSTION
In the last month, have you had too little energy to do the things you wanted to do?

No

LOSS OF APPETITE
What has your appetite been like?

No change in desire for food and/or eating the same as us

WEAKNESS
Maximum grip strength in Kilograms:

Right hand:
Attempt 1: 50.0
Attempt 2: 50.0
Left hand:
Attempt 1: 50.0
Attempt 2: 50.0

WALKING DIFFICULTIES
Because of a health or physical problem, do you have any difficulty doing any of the following everyday activities?
(Exclude any difficulties that you expect to last less than three months)

Walking 100 metres: No

Climbing one flight of stairs without resting: No

LOW PHYSICAL ACTIVITY
How often do you engage in activities that require a low or moderate level of energy such as gardening, cleaning the car, or doing a walk?

More than once a week
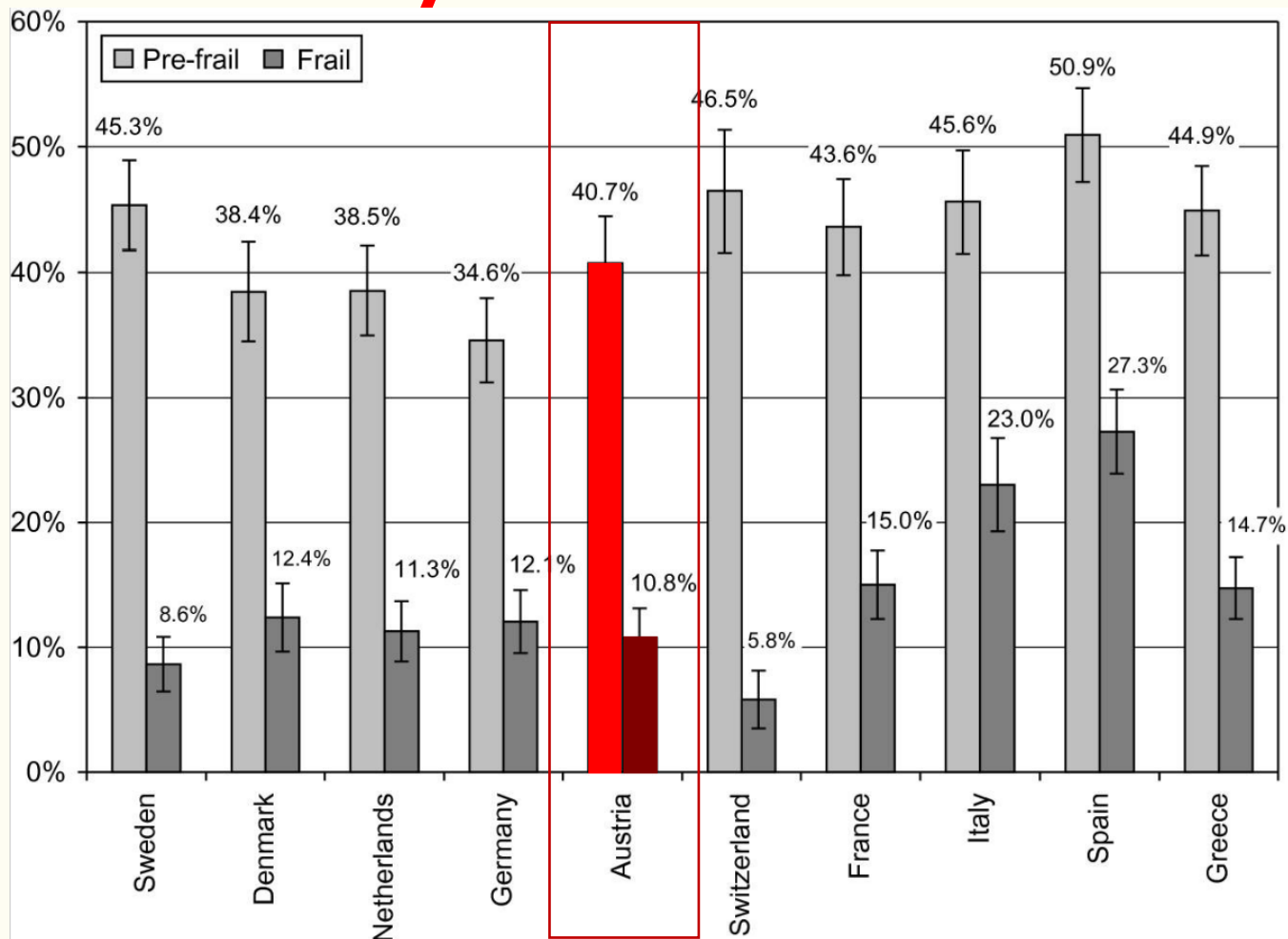
FRAILTY SCORE: -2.515

FRAILTY CATEGORY: NON-FRAIL

Romero-Ortuno et al., BMC Geriatr 2010

Prävalenz Frailty

Prävalenz von Frailty in Pflegeheimen

Table 2
Forest Plot of Prevalence of Frailty in 9 Studies Including a Total of 1373 Nursing Home Patients

Study	N	Prevalence (95% CI)
Nobrega, 2014	69	49.3% (32.7%–65.8%)
Lai, 2014	386	37.8% (26.4%–49.3%)
Gonzalez-Veca, 2014	324	33.2% (27.4%–38.9%)
El Zoghbi, 2014	111	68.8% (59.8%–77.9%)
Borges, 2013	54	74.1% (51.1%–97.0%)
Khater, 2012	84	19.0% (0.10%–28.4%)
Peters, 2012	124	76.6% (61.2%–92.0%)
Matusik, 2012	86	75.6% (57.2%–94.0%)
Abizanda, 2011	135	36.3% (26.1%–46.5%)
Combined	1373	52.3% (37.9%–66.5%)
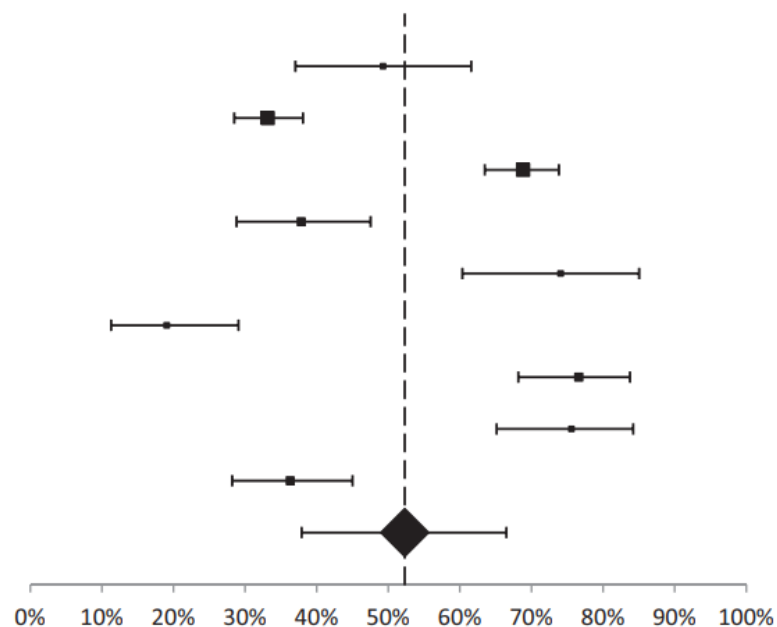
Cochran Q statistics = 223.7, $P < .001$, $I^2 = 96.4\%$.

Folgen von Frailty

- Stürze
- Frakturen
- Einbußen der Kognition
- Einschränkungen in ADLs
- Einschränkungen der Mobilität
- Behinderungen
- Krankenhauseinweisungen
- Institutionalisierung
- Vorzeitige Sterblichkeit

Frailty und Mortalität

Table 2
Hazard Ratios of Mortality Outcomes by Frailty Status

	Cases, n (%)	Crude HR (95% CI)	Model 1, HR (95% CI)	Model 2, HR (95% CI)	Model 3, HR (95% CI)	Model 4, HR (95% CI)	Model 5, HR (95% CI)
All-cause mortality							
Robust (ref)	1450 (7.5)	1	1	1	1	1	1
Prefrail	575 (15.9)	**2.34 (2.13-2.58)**	**1.62 (1.46-1.79)**	**1.57 (1.42-1.74)**	**1.60 (1.44-1.78)**	**1.30 (1.17-1.45)**	**1.47 (1.31-1.63)**
Frail	479 (28.2)	**5.55 (5.01-6.16)**	**2.55 (2.27-2.85)**	**2.44 (2.18-2.74)**	**2.49 (2.21-2.80)**	**1.63 (1.43-1.86)**	**2.17 (1.90-2.48)**
Stroke mortality							
Robust (ref)	140 (0.7)	1	1	1	1	1	1
Prefrail	59 (1.7)	**2.50 (1.84-3.39)**	1.34 (0.97-1.85)	1.27 (0.92-1.76)	1.27 (0.91-1.76)	1.31 (0.93-1.84)	1.31 (0.93-1.85)
Frail	56 (3.6)	**6.83 (5.01-9.32)**	**2.18 (1.55-3.07)**	**2.02 (1.43-2.86)**	**2.00 (1.40-2.86)**	**2.06 (1.37-3.08)**	**2.06 (1.37-3.10)**
Heart attack mortality							
Robust (ref)	223 (1.2)	1	1	1	1	1	1
Prefrail	91 (2.6)	**2.41 (1.89-3.08)**	**1.50 (1.17-1.93)**	**1.45 (1.12-1.87)**	**1.46 (1.13-1.88)**	**1.36 (1.04-1.78)**	**1.31 (1.01-1.72)**
Frail	70 (4.3)	**5.30 (4.05-6.94)**	**2.21 (1.66-2.95)**	**2.09 (1.56-2.80)**	**2.01 (1.48-2.71)**	**1.80 (1.28-2.52)**	**1.67 (1.19-2.34)**
Other cardiovascular disease mortality							
Robust (ref)	354 (24.4)	1	1	1	1	1	1
Prefrail	162 (28.2)	**3.19 (2.39-4.26)**	**2.13 (1.57-2.90)**	**2.09 (1.54-2.85)**	**2.29 (1.68-3.12)**	**2.16 (1.54-2.99)**	**2.03 (1.46-2.81)**
Frail	134 (28.0)	**8.13 (6.02-10.97)**	**3.40 (2.44-4.74)**	**3.30 (2.36-4.62)**	**3.38 (2.38-4.80)**	**3.25 (2.20-4.78)**	**2.77 (1.87-4.12)**
Cancer mortality							
Robust (ref)	527 (2.7)	1	1	1	1	1	1
Prefrail	136 (3.8)	**1.52 (1.26-1.83)**	**1.36 (1.12-1.66)**	**1.34 (1.09-1.63)**	**1.33 (1.08-1.63)**	1.23 (0.99-1.52)	1.20 (0.97-1.49)
Frail	107 (6.5)	**3.36 (2.73-4.14)**	**2.37 (1.90-2.97)**	**2.30 (1.83-2.89)**	**2.38 (1.89-3.00)**	**2.20 (1.70-2.84)**	**2.11 (1.63-2.73)**
Respiratory disease mortality							
Robust (ref)	70 (0.4)	1	1	1	1	1	1
Prefrail	37 (1.1)	**3.14 (2.11-2.11)**	**2.09 (1.38-3.19)**	**1.99 (1.30-3.04)**	**2.13 (1.39-3.25)**	**1.76 (1.13-2.74)**	**1.70 (1.09-2.65)**
Frail	39 (2.5)	**9.62 (6.50-14.24)**	**4.10 (2.64-6.36)**	**3.80 (2.44-5.93)**	**4.12 (2.63-6.48)**	**2.97 (1.79-4.92)**	**2.76 (1.66-4.60)**
Infectious disease mortality							
Robust (ref)	74 (0.4)	1	1	1	1	1	1
Prefrail	34 (0.9)	**2.71 (1.81-4.07)**	**1.71 (1.12-2.62)**	**1.67 (1.09-2.58)**	**1.73 (1.12-2.67)**	1.24 (0.79-1.95)	1.47 (0.94-2.31)
Frail	32 (1.9)	**7.25 (4.79-10.98)**	**2.76 (1.74-4.36)**	**2.67 (1.68-4.25)**	**2.49 (1.53-4.05)**	1.26 (0.74-2.16)	**1.79 (1.03-3.11)**
Digestive and other cause mortality							
Robust (ref)	250 (1.3)	1	1	1	1	1	1
Prefrail	137 (3.8)	**3.24 (2.63-3.99)**	**1.62 (1.30-2.02)**	**1.59 (1.27-1.98)**	**1.57 (1.25-1.98)**	1.24 (0.97-1.58)	**1.50 (1.18-1.91)**
Frail	108 (6.5)	**7.30 (5.82-9.15)**	**2.05 (1.60-2.63)**	**1.99 (1.55-2.57)**	**2.05 (1.58-2.66)**	**1.36 (1.02-1.81)**	**2.02 (1.51-2.71)**

CI, confidence interval.
Model 1: adjusted for sex, age; Model 2: adjusted for sex, age, and education; Model 3: adjusted for sex, age, education, and BMI; Model 4: adjusted for sex, age, education, BMI, smoking, and alcohol consumption; Model 5: adjusted for sex, age, education, BMI, smoking, alcohol consumption, and numbers of comorbidities.
Values in bold are statistically significant.

Grabovac et al. JAMDA 2019

Risikofaktoren für Frailty

- Höheres Alter
- Weibliches Geschlecht
- Malnutrition (over- and undernutrition)
- Bewegungsmangel
- Chronische Inflammation
- Hormonelle Dysbalance

- Multimorbidität
- Mangel an sozialer Unterstützung
- Niedriger SES
- Rauchen und Alkoholkonsumation
- Pre-frailty

Bewegung, Eiweiß, soziales Netzt und Frailty

Table 2 Crude and adjusted HRs for becoming frail in 2015 (wave 6) stratified by sex

	No. of cases	No. of frail	Frail HR (95% CI) Crude	Adj.HR (95% CI)[a] Model 1	Adj. HR (95% CI)[b] Model 2	Adj. HR (95% CI)[c] Model 3	Adj. HR (95% CI)[d] Model 4
Men							
Vigorous physical activity (wave 1)[e]							
Regular PA	5733	282 (4.9%)	1 [Reference]	1 [Reference]	1 [Reference]	1 [Reference]	1 [Reference]
No regular PA	4068	494 (12.1%)	2.77 (2.39–3.21)	2, 11(1.82–2.45)	2.05 (1.76–2.37)	1.75 (1.46–2.11)	1.90 (1.50–2.42)
Amount of protein serving per week[f]							
High protein intake	1826	196 (10.7%)	1 [Reference]	1 [Reference]	1 [Reference]	1 [Reference]	1 [Reference]
Low protein intake	2091	275 (13.2%)	1.21 (1.01–1.46)	1.26 (1.05–1.52)	1.21 (1.00–1.45)	1.25 (0.99–1.56)	1.16 (0.93–1.46)
Satisfaction with social network[g]							
Satisfied with social network	1582	208 (13.2%)	1 [Reference]	1 [Reference]	1 [Reference]	1 [Reference]	1 [Reference]
Less satisfied with social network	2383	273 (11.5%)	0.89 (0.74–1.07)	1.00 (0.84–1.21)	0.99 (0.82–1.19)	0.99 (0.77–1.20)	0.92 (0.74–1.15)
Women							
Vigorous physical activity (wave 1)[e]							
Regular PA	5430	487 (9.0%)	1 [Reference]	1 [Reference]	1 [Reference]	1 [Reference]	1 [Reference]
No regular PA	4849	883 (18.2%)	2, 20 (1.97–2.46)	1.70 (1.52–1.90)	1.63 (1.46–1.83)	1.71 (1.37–2.14)	1.65 (1.25–2.18)
Protein servings per week[f]							
High protein intake	2058	376 (18.3%)	1 [Reference]	1 [Reference]	1 [Reference]	1 [Reference]	1 [Reference]
Low protein intake	2174	528 (24.3%)	1.30 (1.14–1.48)	1.34 (1.17–1.53)	1.25 (1.10–1.43)	1.09 (0.83–1.42)	1.05 (0.80–1.37)
Satisfaction with social network							
Satisfied with social network	1854	372 (20.1%)	1 [Reference]	1 [Reference]	1 [Reference]	1 [Reference]	1 [Reference]
Less satisfied with social network	2434	548 (22.5%)	1.13 (0.99–1.29)	1.21 (1.07–1.39)	1.22 (1.07–1.39)	1.72 (1.31–2.26)	1.72 (1.31–2.27)

Notes: Results are given in HRs and 95%CI; PA, physical activity.

[a] Adjusted for age.

[b] Adjusted for factors of Model 1 + education.

[c] Adjusted for factors of Model 1 + 2 + clinical and lifestyle factors (smoking, alcohol, BMI, depression, and long-term illness).

[d] Adjusted for factors of Models 1 + 2 + 3 + 4 and each other (vigorous PA, protein intake and satisfaction with social network).

[e] More than once a week and once a week were dichotomized to regular PA, one to three times a month and hardly ever/never were converted to no regular PA.

[f] Dichotomized based on a median split (median = 15).

[g] Dichotomized based on a median split (median = 9).

Haider et al., EJPH 2019
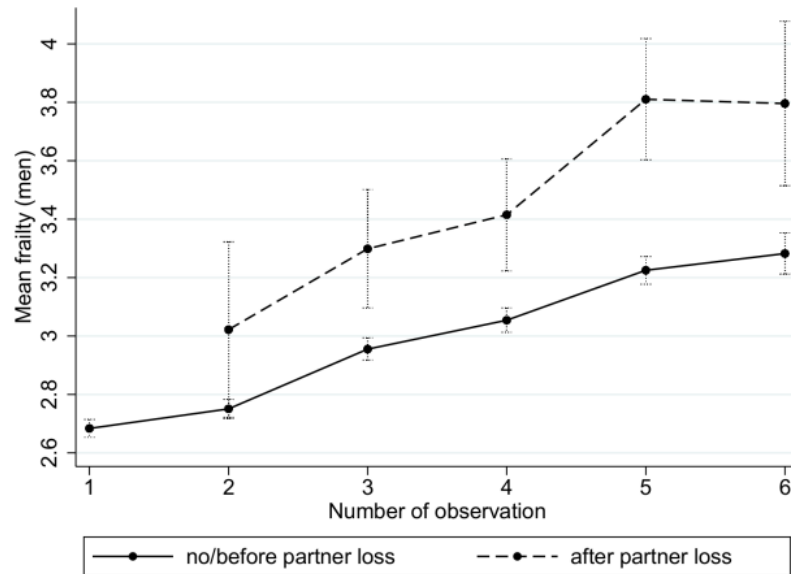
Partnerloss und Frailty

Figure 2 Mean frailty scores and respective 95% confidence intervals at each observation of male respondents who were observed for at least 5 times (n=3,399). The solid line connects the means of participants whose partner was alive at the according observation. The dashed line connects the means of participants whose partner has died. (Number of participants at each mean is shown in online supplemental table S2).

Figure 3 Mean frailty scores and respective 95% confidence intervals at each observation of female respondents who were observed for at least 5 times (n=3,559). The solid line connects the means of participants whose partner was alive at the according observation. The dashed line connects the means of participants whose partner has died. (Number of participants at each mean is shown in online supplemental table S2).
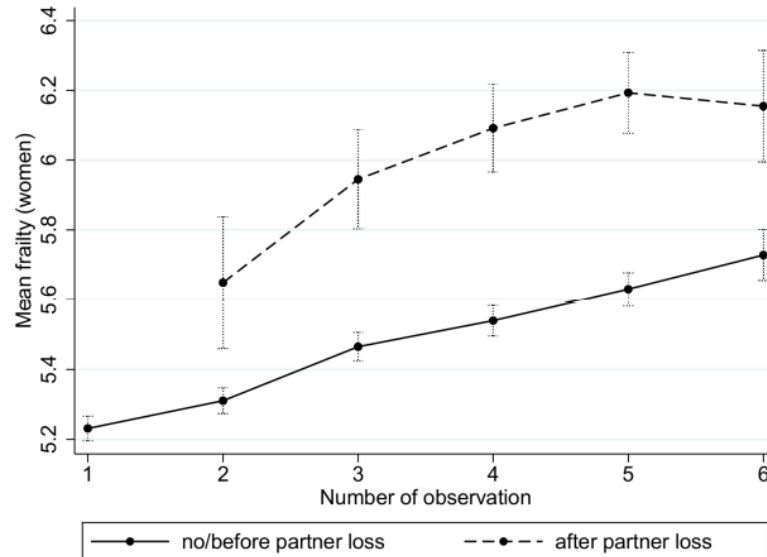
RISK FACTORS

CONSEQUENCES

Genetic & constitutional factors

Environmental factors
(e.g. sedentary lifestyle, unbalanced diet, living conditions)

Aging with molecular and cellular changes in
- Hormones
- Pro-inflammatory cytokines
- Neuronal factors
- Cardiovascular factors
- Respiratory factors
- Renal factors
- Protein metabolism
- Oxidative stress
- gene expression
- ↑ apoptosis

↑ Chronic health conditions
↑ Medication
↑ Loneliness

MALNUTRITION

SARCOPENIA

CHRONIC INFLAMMATION

Characteristics

↓ Muscle mass
↓ Muscle strength
↓ Physical performance
↓ Endurance
↑ Insulin resistance

FRAILTY

STRESS

↑ Vulnerability
↑ Disabilities
↑ Falls
↑ Morbidity
↑ Hospitalization
↑ Nursing home admission
↑ Mortality
↑ Dependency
↑ Social isolation
↓ Quality of life

↑ **HEALTH CARE COSTS**

Lebensqualität
Selbstständigkeit

Gebrechlichkeit verhindern / reduzieren

Körperliches Training

Ernährungsoptimierung

Soziale Unterstützung

Bewegung im Alter = Prävention von Frailty

Körperlich	Psychisch	Sozial
• Sarkopenie • Stürzen • Funktionseinbußen • Schmerzen	• Kognitiven Funktionseibußen • Depression • Sturzangst	• Sozialem Rückzug • Mangelnder Teilhabe • Isolation • Abhängigkeit

- Niedriger Lebensqualität
  - Morbidität
  - Mortalität

Risk factors for falls

Risik factor	Mean RR-OR
Muscular weakness	4.4
History of falls	3.0
Gait problems	2.9
Balance problems	2.9
Using gait aids	2.6
Visual deficits	2.5
Osteoarthritis	2.4
Deficits in ADL	2.3
Depression	2.2
Cognitive deficits	1.8
Age > 80	1.7

Physical rehabilitation for older people in long-term care (Review)

Crocker T, Forster A, Young J, Brown L, Ozer S, Smith J, Green J, Hardy J, Burns E, Glidewell E, Greenwood DC
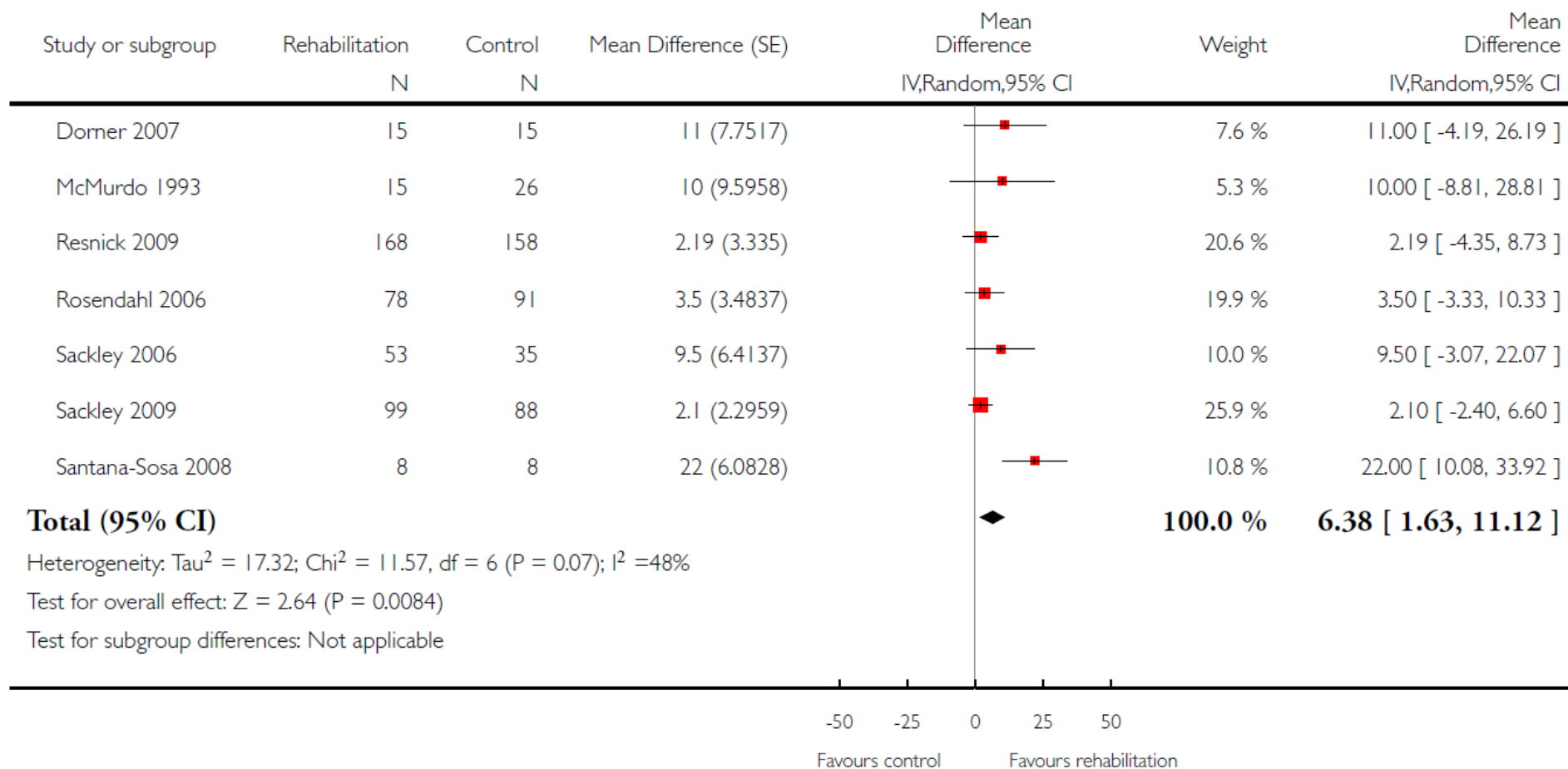
Analysis 1.1. Comparison 1 Rehabilitation versus control, Outcome 1 Barthel Index.

Review: Physical rehabilitation for older people in long-term care

Comparison: 1 Rehabilitation versus control

Outcome: 1 Barthel Index

Study or subgroup	Rehabilitation N	Control N	Mean Difference (SE)	Mean Difference IV,Random,95% CI	Weight	Mean Difference IV,Random,95% CI
Dorner 2007	15	15	11 (7.7517)		7.6 %	11.00 [-4.19, 26.19]
McMurdo 1993	15	26	10 (9.5958)		5.3 %	10.00 [-8.81, 28.81]
Resnick 2009	168	158	2.19 (3.335)		20.6 %	2.19 [-4.35, 8.73]
Rosendahl 2006	78	91	3.5 (3.4837)		19.9 %	3.50 [-3.33, 10.33]
Sackley 2006	53	35	9.5 (6.4137)		10.0 %	9.50 [-3.07, 22.07]
Sackley 2009	99	88	2.1 (2.2959)		25.9 %	2.10 [-2.40, 6.60]
Santana-Sosa 2008	8	8	22 (6.0828)		10.8 %	22.00 [10.08, 33.92]
Total (95% CI)					**100.0 %**	**6.38 [1.63, 11.12]**

Heterogeneity: Tau^2 = 17.32; Chi^2 = 11.57, df = 6 (P = 0.07); I^2 =48%

Test for overall effect: Z = 2.64 (P = 0.0084)

Test for subgroup differences: Not applicable

-50   -25   0   25   50

Favours control   Favours rehabilitation

Crocker et al., Cochrane Collaboration 2013

Veränderungen durch Kraft- und Gleichgewichtstraining – RTC

	Before training		After training		
	Training group n=15	Control group n=15	Training group n=15	Control group n=15	*p**
Mean muscle strength score	3.70±0.64	3.94±0.96	4.44±0.52	3.95±0.92	<0.001
Mean Body Mass Index (kg/m²)	23.8±3.1	22.5±4.0	25.0±2.7	22.4±3.7	0.021
Mean lean body mass (%)	72.0±6.5	76.0±9.3	69.4±6.5	71.9±8.3	0.726
Mean lean body mass (kg)	43.4±7.2	43.7±8.1	44.2±8.8	41.1±7.3	0.002
Mean Tinetti score	13.8±7.2	12.5±7.2	11.1±4.2	11.4±5.7	0.527
Mean MMSE score	20.9±5.4	20.9±5.3	23.9±5.5	20.5±6.5	0.103
Mean Barthel index	65.3±13.8	52.3±12.2	64.7±18.3	53.7±23.8	0.785
Mean FIM score	87.1±11.9	80.9±13.8	81.5±18.7	79.5±15.4	0.513
Mean GDS score	3.50±2.03	2.73±1.39	1.47±1.06	1.27±1.33	0.551

*ANOVA-RM test: Analysis of variance-repeated measures; MMSE: Mini-mental state examination; FIM: Functional independence measure; GDS: Geriatric depression scale.

Dorner et al. Aging Clin Exp Res 2007

Verbesserung der kognitiven Funktion durch Kraft- und Gleichgewichtstraining

Trainingsgruppe
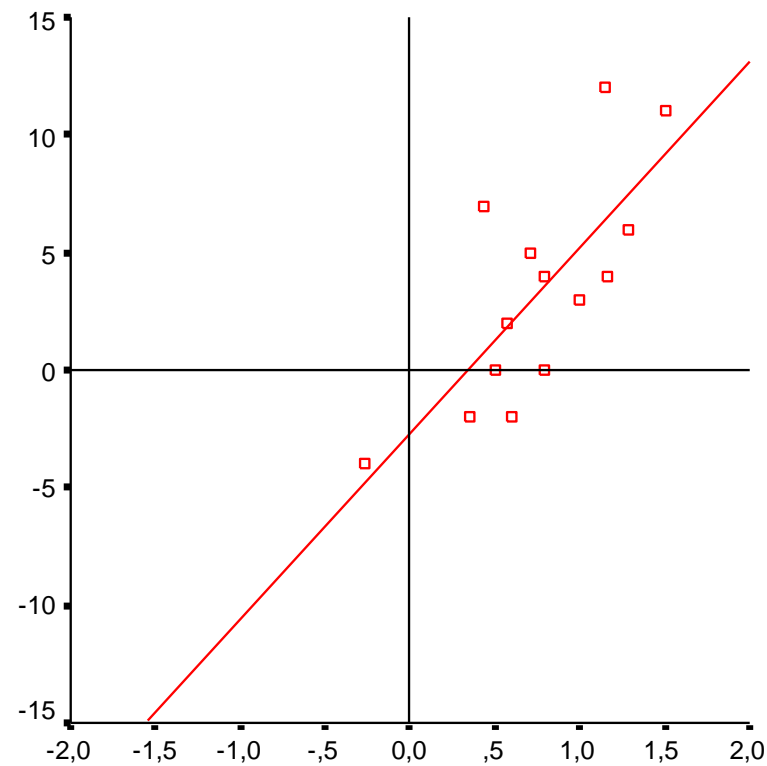
Change of muscle strength

Dorner et al. Aging Clin Exp Res 2007

„Gesund fürs Leben" Studie

BMC
Public Health

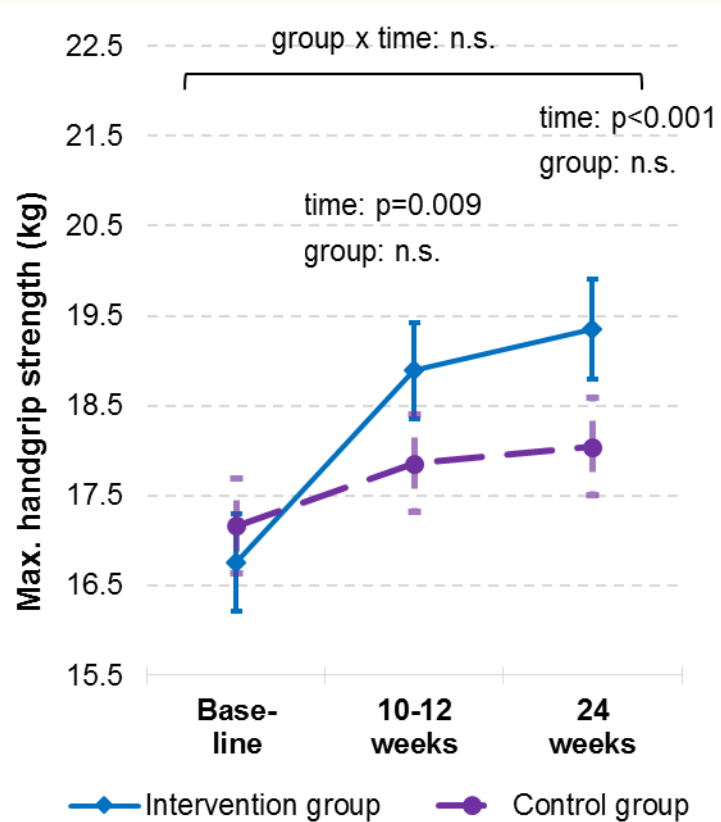**STUDY PROTOCOL**   **Open Access**

Nutritional intervention and physical training in malnourished frail community-dwelling elderly persons carried out by trained lay "buddies": study protocol of a randomized controlled trial

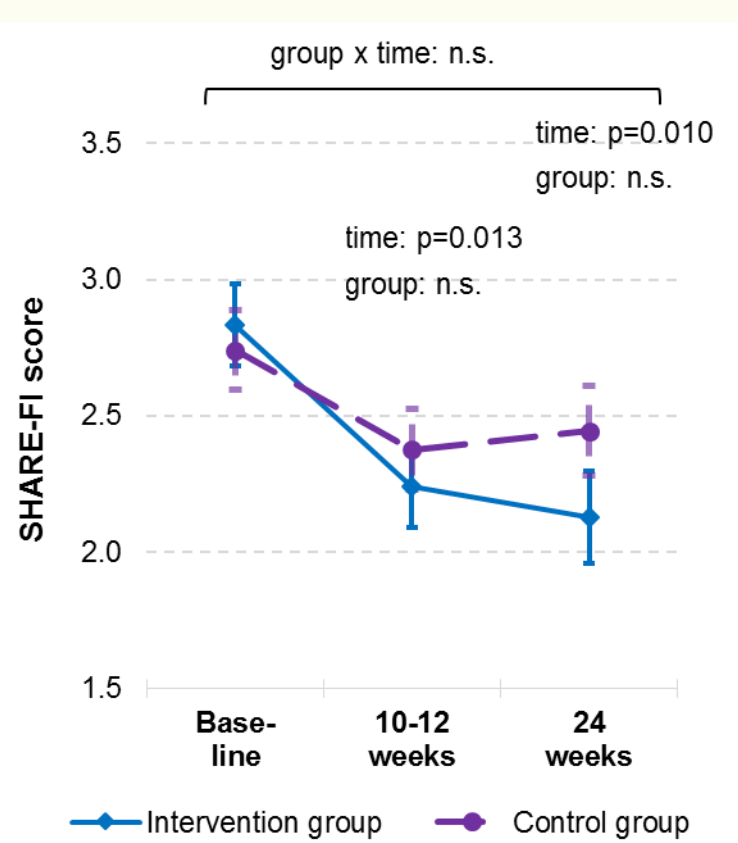Thomas E Dorner[1], Christian Lackinger[2], Sandra Haider[1,2*], Eva Luger[1], Ali Kapan[1], Maria Luger[3,4] and Karin E Schindler[3]

Ergebnisse – gebrechliche P.

Handkraft

group x time: n.s.

time: p<0.001
group: n.s.

time: p=0.009
group: n.s.

Max. handgrip strength (kg)

22.5 · 21.5 · 20.5 · 19.5 · 18.5 · 17.5 · 16.5 · 15.5

Base-line · 10-12 weeks · 24 weeks

Intervention group · Control group

Gebrechlichkeit

group x time: n.s.

time: p=0.010
group: n.s.

time: p=0.013
group: n.s.

SHARE-FI score

3.5 · 3.0 · 2.5 · 2.0 · 1.5

Base-line · 10-12 weeks · 24 weeks

Intervention group · Control group

Adjusted for baseline value, sex and hospitalization

Luger et al., JAMDA 2016

Change in inflammatory markers by change in physical parameters

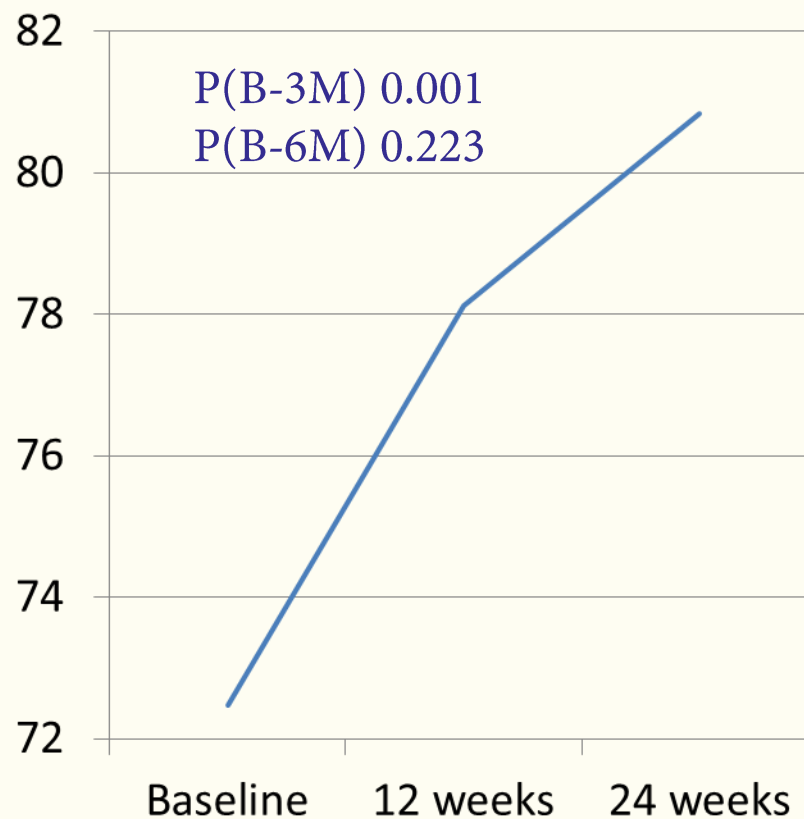|	Equal or lower markers		
	TNF-α OR (95% CI)	log-IL-6 OR (95% CI)	log-CRP OR (95% CI)
Δ Frailty Status (SHARE-FI)			
Equal or lower	0.49 (0.16–1.56)	0.65 (0.23–1.86)	0.94 (0.29–3.06)
Higher	1	1	1
Δ Hand grip (kg/m²)			
Equal or lower	1	1	1
Higher	1.39 (0.50–3.90)	**2.93 (1.07–8.04)****	0.44 (0.14–1.39)
Δ Physical function (SPPB)			
Equal or lower	1	1	1
Higher	1.59 (0.56–4.53)	**6.25 (2.04–19.14)****	1.21 (0.39–3.75)

Logistic regression; adjusted for sex, age, anti-inflammatory drugs, and chronic inflammatory diseases, and group

Effekte bei Buddies

Handgrip strength

P(B-3M) 0.003
P(B-6M) 0.037

Baseline   12 weeks   24 weeks

Leg press

P(B-3M) 0.001
P(B-6M) 0.223

Baseline   12 weeks   24 weeks

Grabovac et al., WKWO 2018
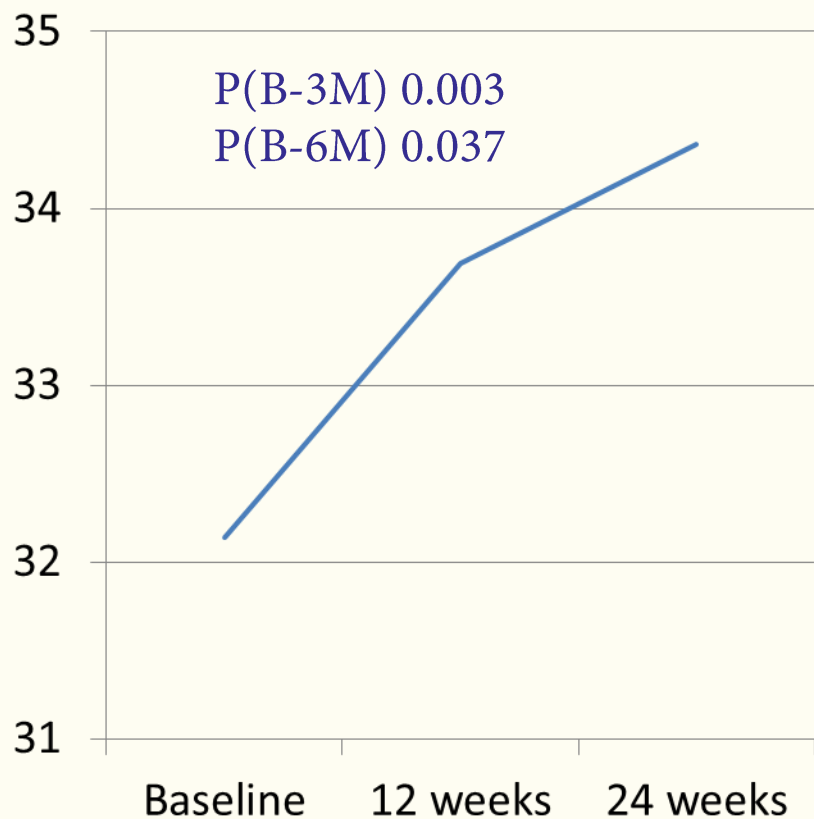
Bewegungsempfehlungen ERWACHSENE AB 65 JAHREN

mindestens
150 Minuten
mittlere Anstrengung

oder

mindestens
75 Minuten
höhere Anstrengung

pro Woche

zusätzlich an 2 Tagen
muskelkräftigende Übungen

Ausdauerorientierte Bewegung mit mittlerer Anstrengung heißt:
Man kann während der Bewegung noch sprechen, aber nicht mehr singen.

Ausdauerorientierte Bewegung mit höherer Anstrengung heißt:
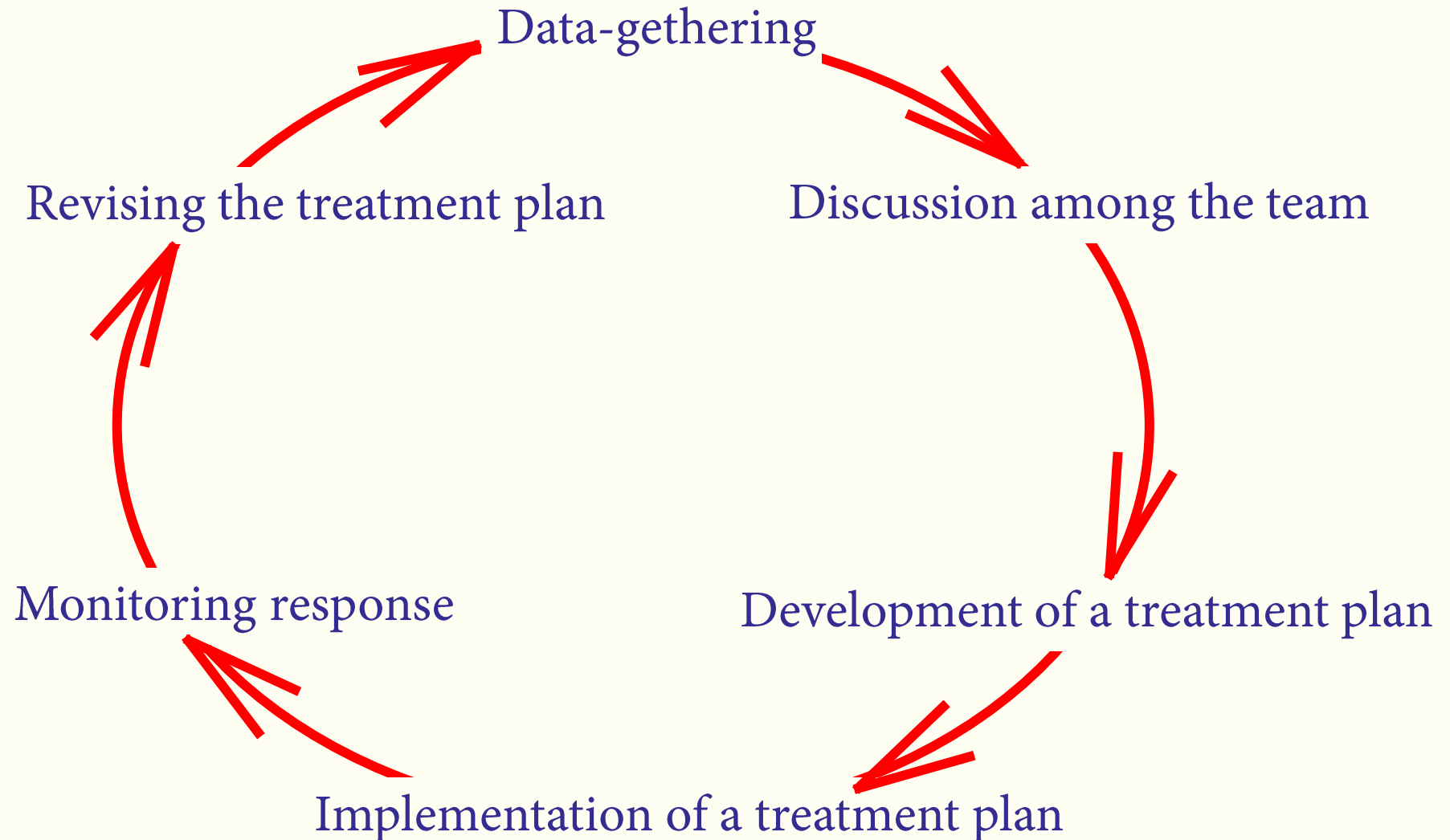Man kann während der Bewegung nur mehr ein paar Worte sagen.

Übungen sollen alle großen Muskelgruppen kräftigen:
Bein-, Hüft-, Brust-, Rücken-, Bauch-, Schulter- und Armmuskeln.

Machen Sie möglichst viele unterschiedliche Arten von Bewegung und trainieren Sie auch Gleichgewicht und Beweglichkeit.
Sie können aber auch Bewegung mit mittlerer Anstrengung und Bewegung mit höherer Anstrengung zusammenrechnen.
Als Faustregel dabei gilt, dass 10 Minuten Bewegung mit höherer Anstrengung gleich viel zählen wie 20 Minuten Bewegung mit mittlerer Anstrengung. Rechnen Sie also die Dauer der Bewegung mit höherer Anstrengung mal 2.

Implikationen für (Pflege)versorgung

Six steps: Geriatric Assessment

Data-gethering

Discussion among the team

Development of a treatment plan

Implementation of a treatment plan

Monitoring response

Revising the treatment plan

Geriatric Care Plan Form

Name and Last name of patient: _____

Date of birth: _____

Tel of patient: _____

Date of Geriatric Care Plan: _____

Geriatric Care Plan team:	
Family doctor (Name and last name)	
Nurse (Name and last name)	
Social worker (Name and last name)	

Problem	Goal	Activities*		
		Specific activity	Responsible person from the Geriatric Care Plan team	Target date for realizing the activity
Suspicion of cognitive deficits	Clarification of cognitive deficits	Neuro-psychologic tests	Family doctor	June 12
		Imaging techniques	Family doctor	June 20
	Maintain cognitive function	Establish anti-dementive drug therapy	Family doctor	July 4
		Establish physical training in group	Nurse	May 31
Frailty according to SHARE-FI Undernutrition Deficits in ADLs	Increase the number of ADLs which can be performed independently	Establish physical training in group	Nurse	May 31
		Increase nutritional protein intake	Family doctor -> Nutritionist	June 12
		Organise volunteer visits	Social worker	July 4

*Rows can be added based on the volume of activities

Date of the next planned Geriatric Care Plan: _____

➤ After the Care Plan is completed from the health and social professionals, set-up a meeting with a patient/patients' relative to discuss the Care Plan

Did the patient agree with the Care Plan? _____ (Yes/No)   Date: _____ Signature of patient: _____

Is Care Plan communicated with patients' relatives? _____ (Yes/No)   Date: _____ Signature of relative: _____

Relation to patient: | _____

Bytyci et al., WKWO 2019

Zusammenfassung

– Frailty: häufiges Problem in der Versorgung

– Konseqenzen schwerwiegend

– Assesment von Frailty als Routine

– Versorgung auf drei Säulen:
  – Körperliches Training
  – Ernährungsoptimierung
  – Soziale Partizipation

– Erfolg: Lebensqualität, Selbstständigkeit und Unabhängigkeit

HAUS DER BARM♡IGKEIT

Es lebe das Leben.