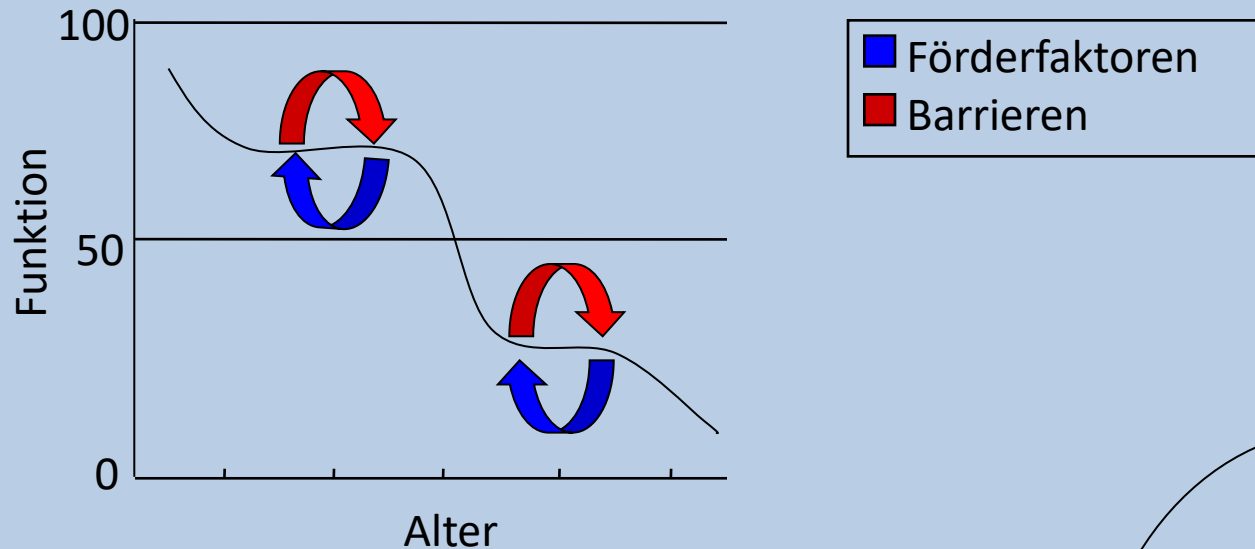


Epidemiologie und Prävention von psychischen Erkrankungen im mittleren und höheren Lebensalter

Prof. Dr. Dr. Michael Rapp
Professur für Sozial- und Präventivmedizin
Exzellenzbereich Kognitionswissenschaften
Department Sport- und Gesundheitswissenschaften
Universität Potsdam

“Meine Hoffnung ist vielmehr, daß wir begreifen, wie kostbar jeder Moment ist und wie tröstlich unser Miteinander, wenn wir unserer Endlichkeit, unserer kurzen Zeit im Licht, wirklich ins Auge sehen.“
(Yalom, 2008, In die Sonne schauen)

Barrieren und Förderfaktoren für erfolgreiches Altern

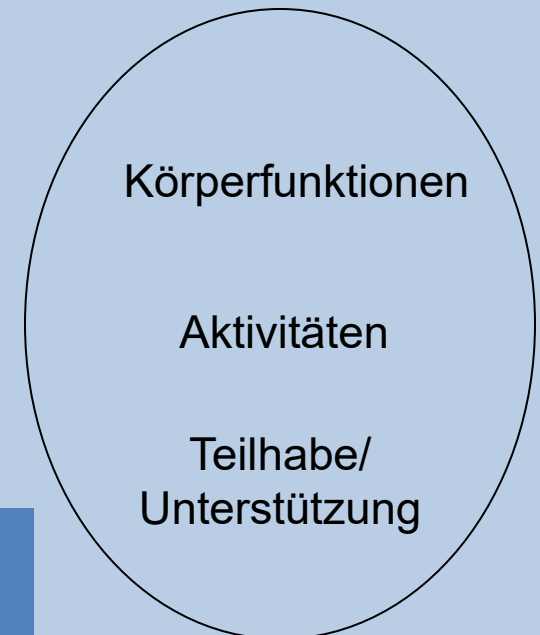


Barrieren und **Förderfaktoren**:

Genetische Disposition
Alter
Motivation
Versorgungsstrukturen
Angehörige



Plastizität über die Lebensspanne
Plastizität in Versorgungssystemen



„Die psychoanalytische Therapie ... scheitert bei allzu betagten Personen daran, daß sie bei ihnen, dem angehäuften Material entsprechend, allzuviel Zeit in Anspruch nehmen würde, so daß man bis zur Beendigung der Kur in einen Lebensabschnitt geraten würde, für welchen auf nervöse Gesundheit nicht mehr Wert gelegt wird.“

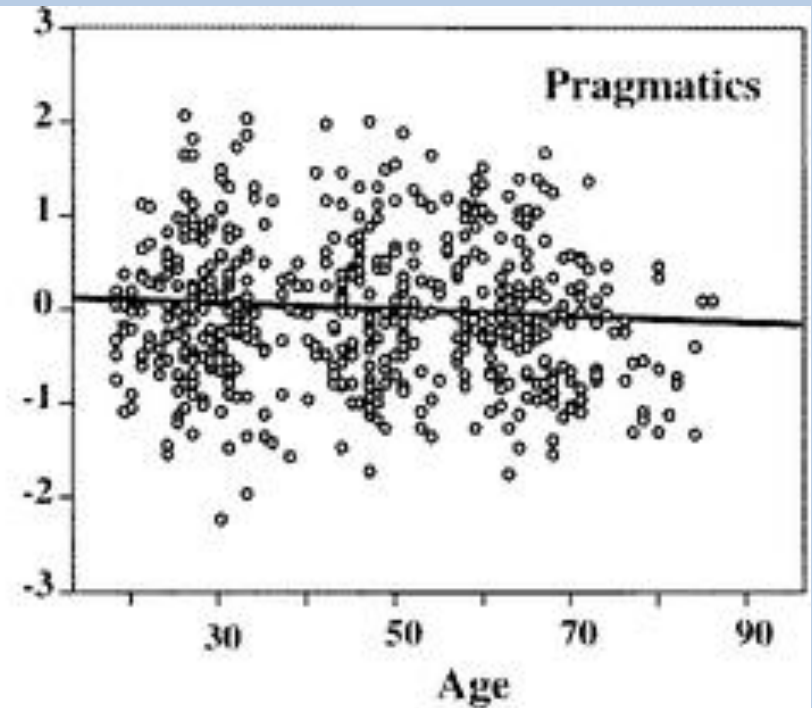
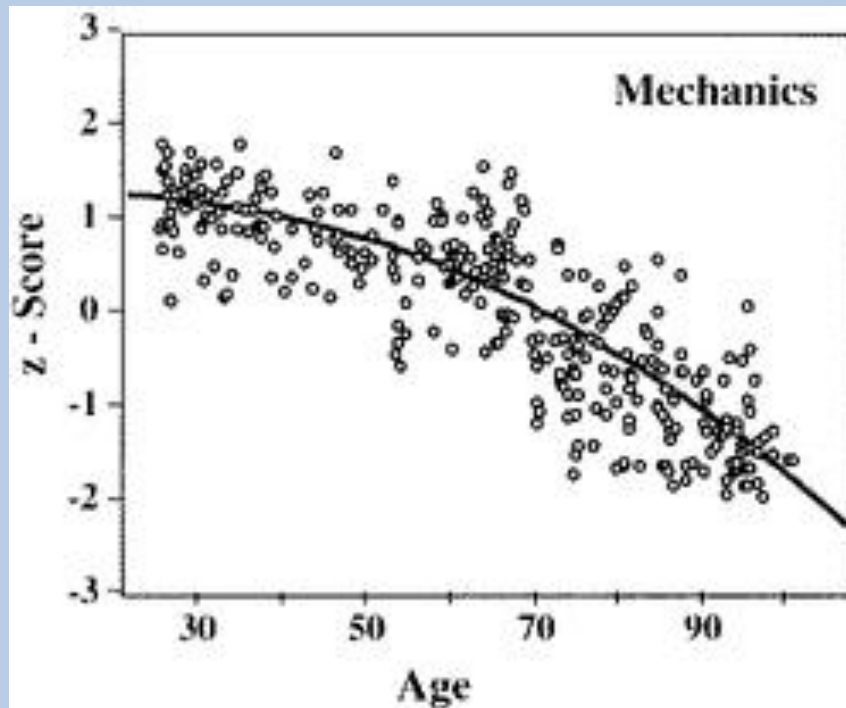
(Freud 1898, Die Sexualität in der Ätiologie der Neurosen)

Erfolgreiches Altern: Kognitive Plastizität



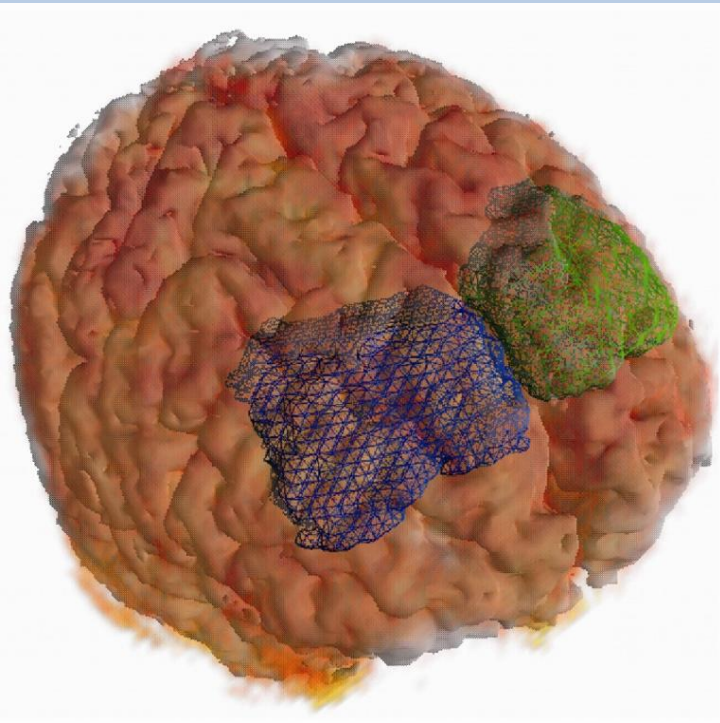
- Lernen als Prozess von Verhaltensänderungen (Baddeley, 2009)
- Plastizität als maximale Veränderbarkeit des Verhaltens (Baltes et al., 1997; Singer et al., 2003)
- Testing-the-limits Trainingsverfahren (adaptives Training; Smith et al., 1992)
- Was sind Moderatoren von kognitiver Plastizität über die Lebensspanne?

Kognitives Altern



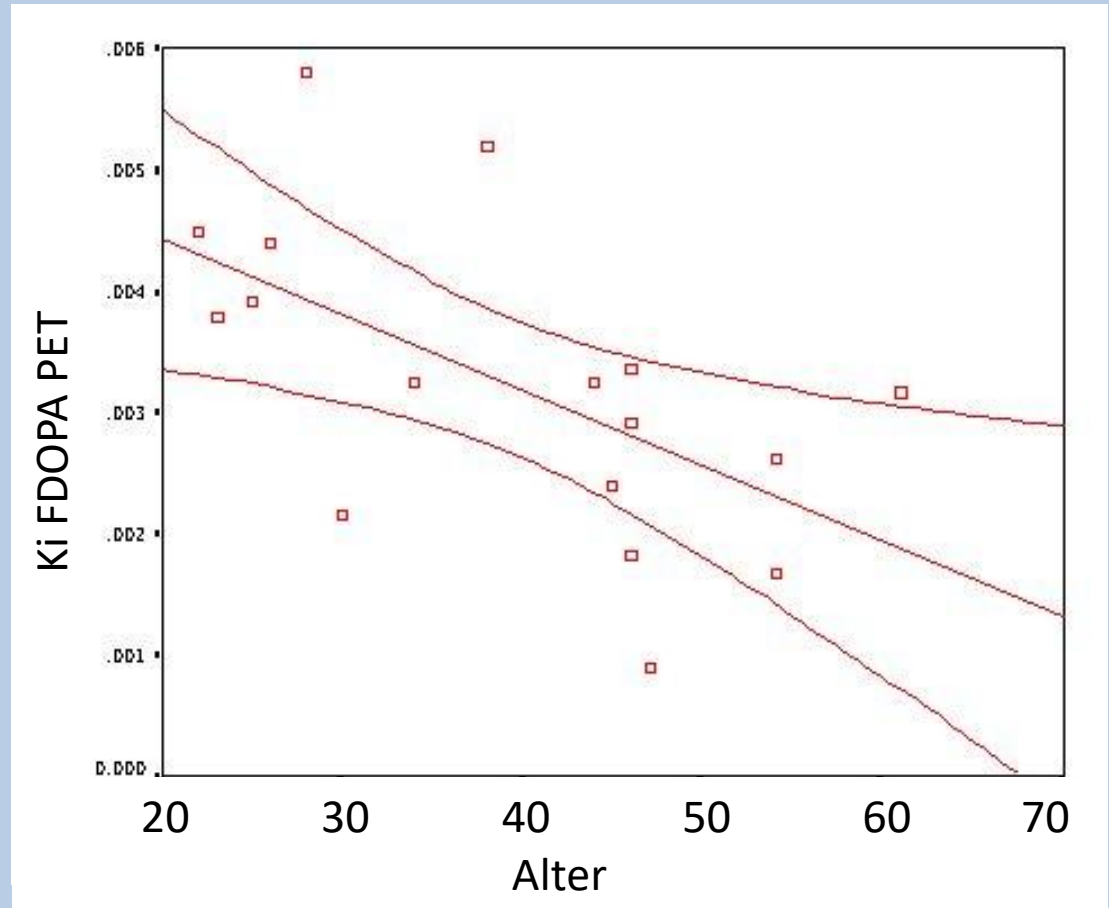
Baltes PB†, Lindenberger U. Berlin Aging Study , 1997.

Dopamin über die Lebensspanne

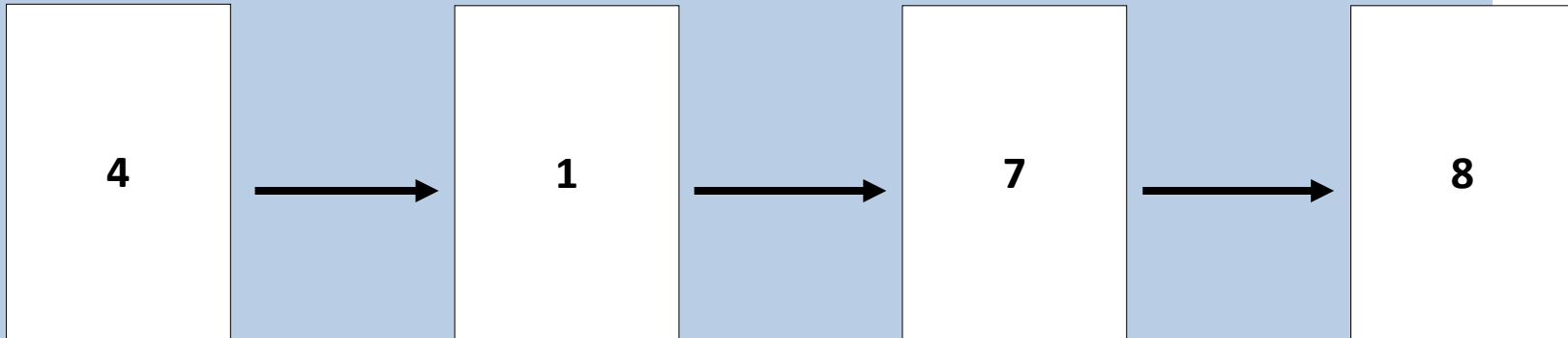


17 gesunde Männer
Alter $39,4 \pm 12,1$ Jahre
Altersrange 19-61

Methode:
F-DOPA PET

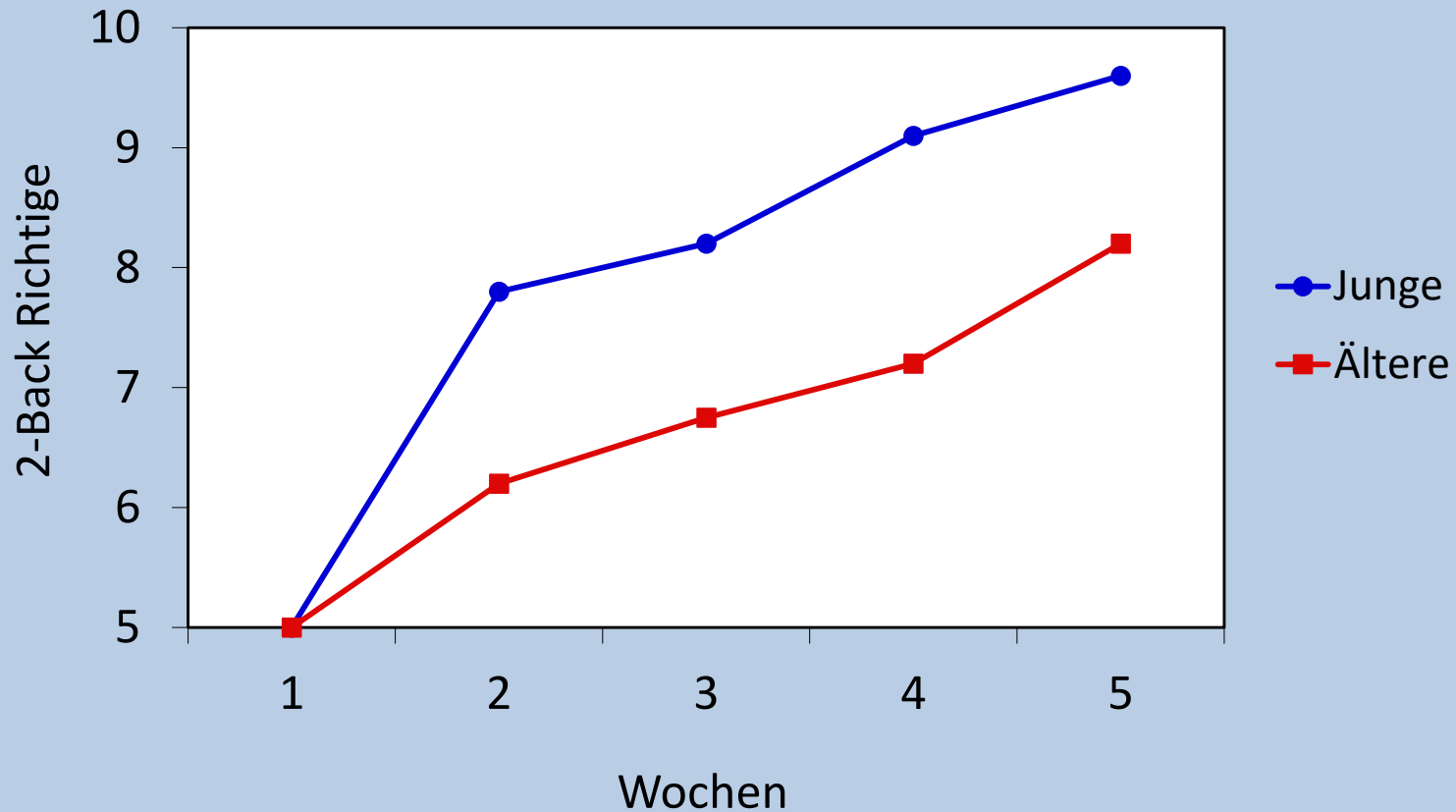


Plastizität im Arbeitsgedächtnis

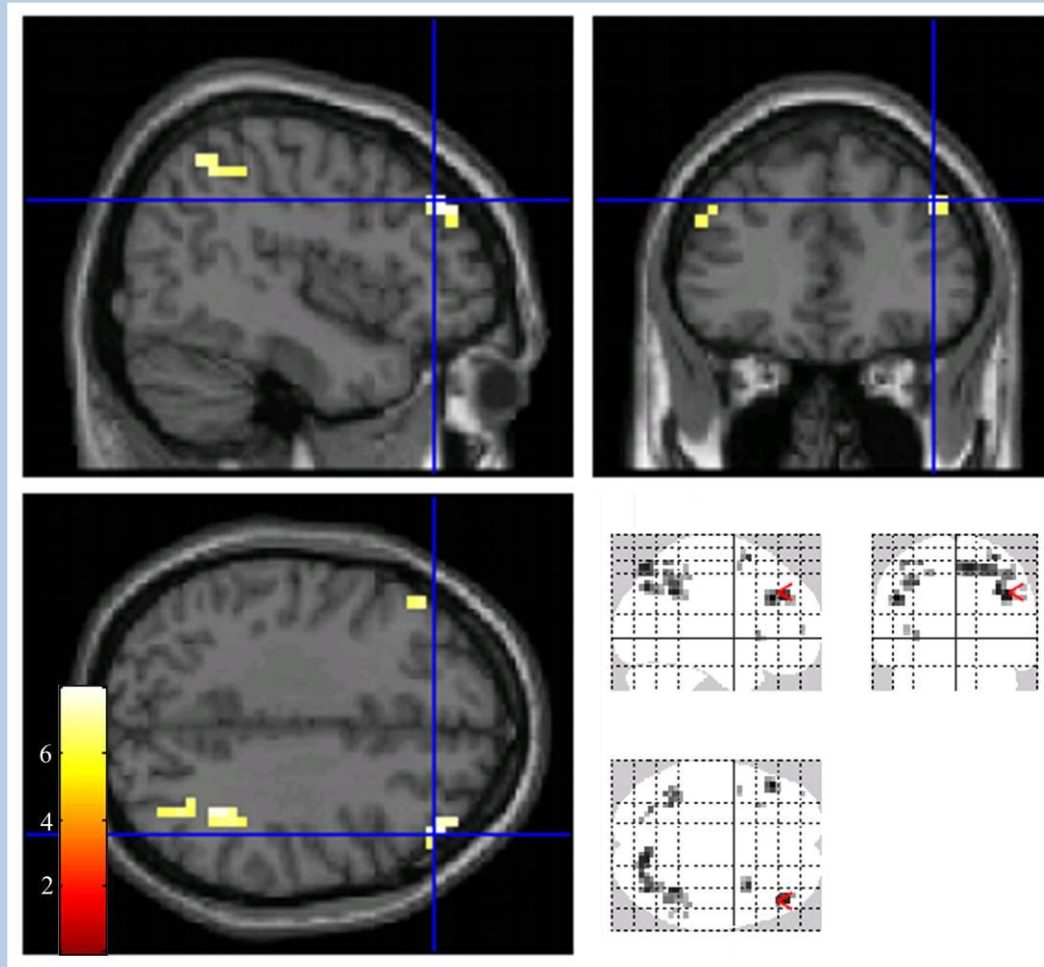


2-Back: „4“ „1“

Plastizität im Arbeitsgedächtnis



Plasticity in working memory: Decreased functional activation after training

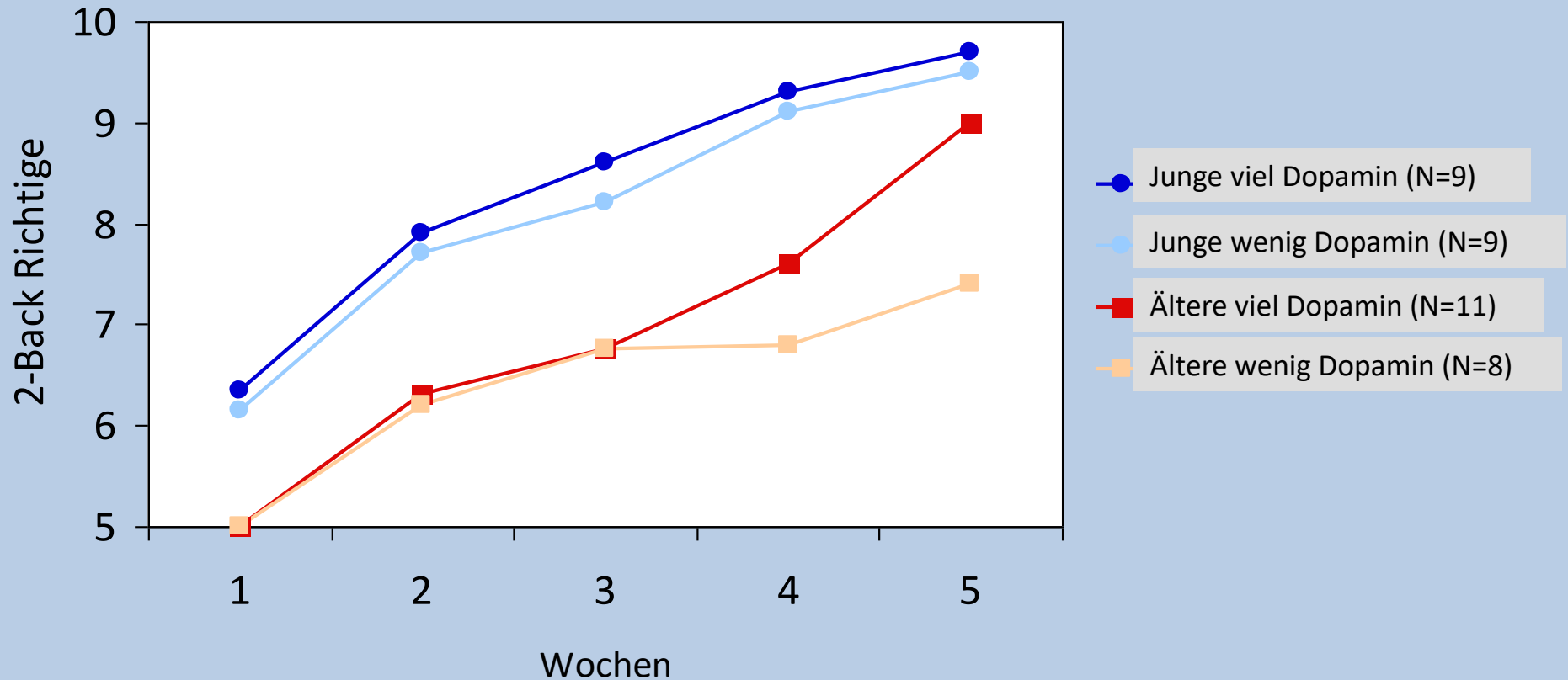


12 healthy older adults
(6f, 6m)

Aged $65,7 \pm 6,1$ years
(range 60-71)

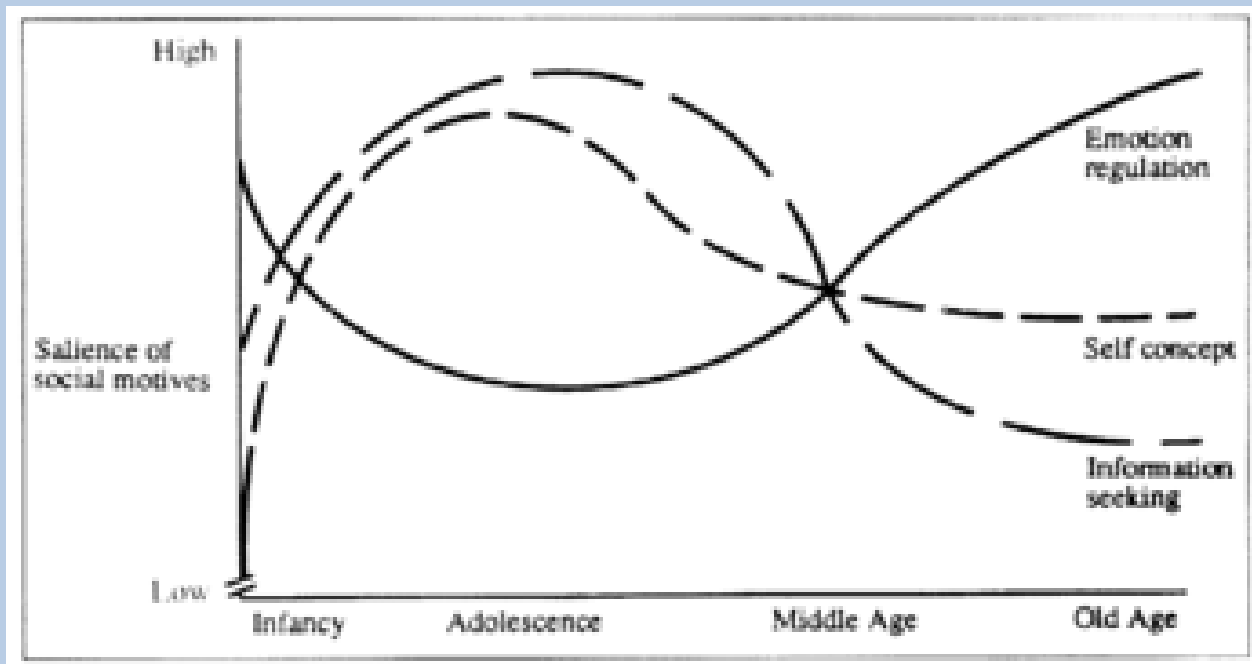
Method:
12 weeks of training
Pre-Post contrast in 2-Back

Neurotransmitter und Plastizität: Dopamin-Genotyp



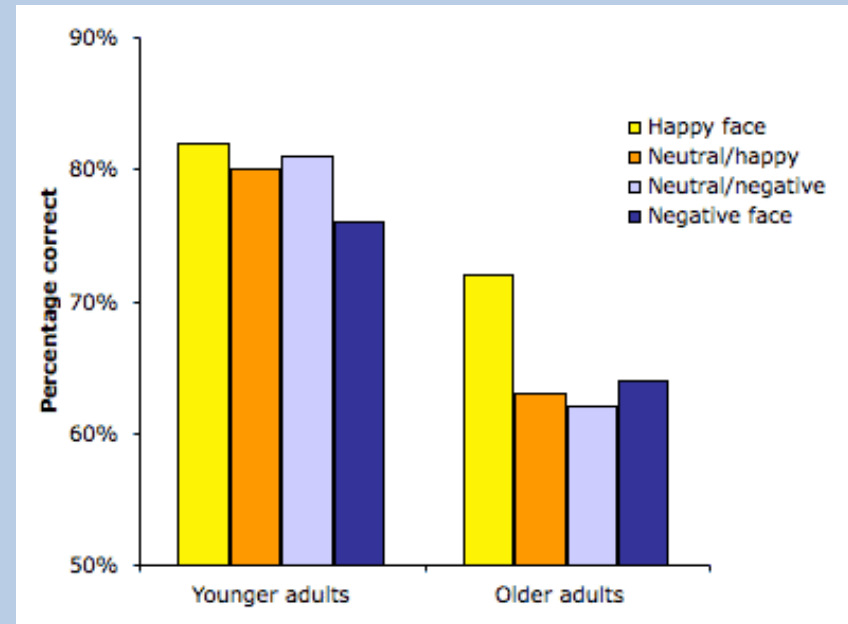
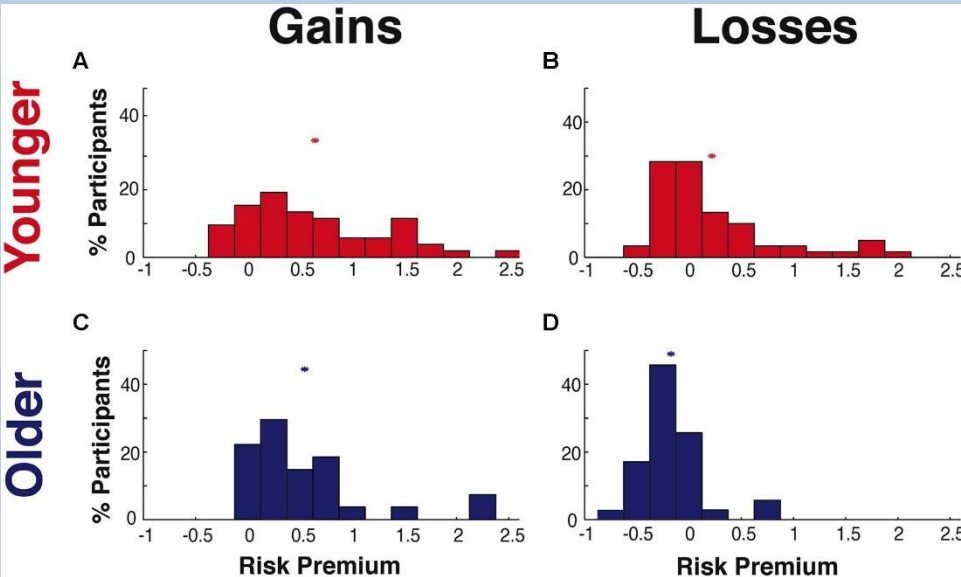
COMT-(Val158Met) Polymorphismus: Methionin (viel Dopamin) vs. Valin (wenig Dopamin)

Emotion: Positiver Salienzeffekt im Alter



Carstensen et al., Am Psychologist, 1999.

Emotion: Positiver Salienzeffekt im Alter



Kognitive Plastizität im Alter



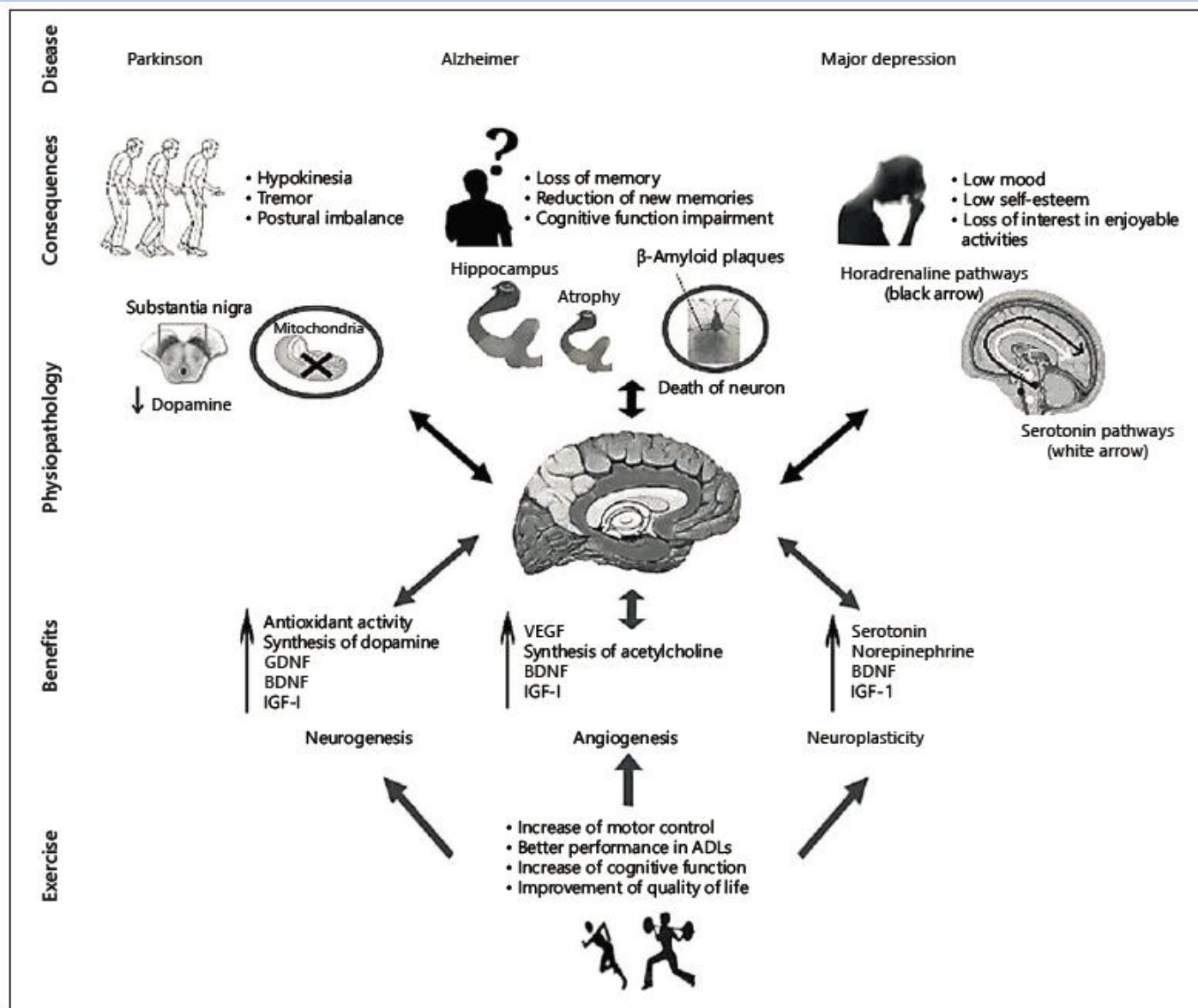
Abhängig von

- Neurotransmission und -biologie
- Trainings- (und Nutzungs-) intensität
- Kontextfaktoren
- Multimodalität
- Aufgabensalienz und Motivation

Erfolgreiches Altern: Körperliche Aktivität



Neurobiologische Wirkmechanismen körperlicher Aktivität im Alter



Körperliche Aktivität zur Prävention von Depression im Alter

Körperliche Aktivität und Depressionsrisiko im Alter

TABLE 2. Sequential logistic regression models showing relations between 1994 physical activity and depression in 1994 and 1999 with adjustments for other risk factors among 1,947 men and women, Alameda County Study, California, 1994–1999

Model and 1994 covariates	Prevalent 1994 depression (cross-sectional analyses) with all subjects included (<i>n</i> = 1,947)		Incident 1999 depression (longitudinal analyses) with 1994 depressed subjects excluded			
			Disabled included (<i>n</i> = 1,802)		Disabled excluded (<i>n</i> = 1,651)	
	OR*	95% CI†	OR	95% CI	OR	95% CI
1. Age, sex, and ethnicity	0.75	0.68, 0.84	0.75	0.66, 0.85	0.73	0.63, 0.85
2. Model 1 + education, financial strain, and neighborhood problems	0.78	0.70, 0.87	0.76	0.67, 0.87	0.75	0.65, 0.87
3. Model 2 + physical disability,‡ chronic conditions, BMI,† smoking, and alcohol consumption	0.86	0.76, 0.96	0.82	0.72, 0.94	0.78	0.67, 0.91
4. Model 3 + no. of relatives, no. of friends, and satisfaction with relations	0.90	0.79, 1.01	0.83	0.73, 0.96	0.79	0.67, 0.92

* Odds ratios (OR) represent the approximate relative likelihood of being depressed associated with a one-point increase in the physical activity scale. Because the incidence rate for depression is relatively small (5.4%), the resulting odds ratios for the longitudinal analyses closely approximate relative risks.

† CI, confidence interval; BMI, body mass index.

‡ This variable is omitted from models in which physically disabled subjects were excluded.

Körperliche Aktivität und Depressionsrisiko bei ehemaligen Leistungssportlern

Table 5 - Logistic regression results for subjects with functioning of daily living: outcome is poor physical and psychological functioning in 1995, odds ratios (with 95% confidence intervals) for poor vs normal functioning.

	Poor physical functioning			Poor psychological functioning		
	Odds ratio	p-value*	Cumulative R2	Odds ratio	p-value*	Cumulative R2
Sports#			0.159			0.099
Endurance sports	0.49 (0.18-1.35)	0.170		0.52 (0.17-1.61)	0.258	
Power sports/Combat	1.38 (0.71-2.68)	0.350		1.25 (0.64-2.47)	0.516	
Power sports/Individual	0.56 (0.23-1.37)	0.201		0.19 (0.06-0.60)	0.005	
Team sports	0.63 (0.29-1.37)	0.241		0.34 (0.15-0.81)	0.015	
Shooting	1.96 (0.76-5.10)	0.166		2.20 (0.81-5.94)	0.121	
(Sports, controls ref.)	1.00			1.00		
Physical activity			0.230			0.122
MET -85, quintile 1^	4.91 (2.02-11.92)	<0.001		1.29 (0.51-3.24)	0.594	
MET -85, quintile 2^	1.49 (0.60-3.74)	0.391		1.09 (0.45-2.65)	0.852	
MET -85, quintile 3^	1.77 (0.71-4.46)	0.223		0.81 (0.31-2.13)	0.668	
MET -85, quintile 4^	1.51 (0.65-3.53)	0.336		1.17 (0.49-2.77)	0.726	
(MET -85, quintile 5^ ref.)	1.00			1.00		
Increased physical activity (MET)/change in risk per MET	0.89 (0.83-0.95)	<0.001		0.96 (0.90-1.03)	0.294	

*Wald's test; #Other independent variables (age, life-style, BMI, mood, diseases, personality characteristics, life events, socio-economic status) in model; ^Quintile described in detail in Table 1.

N = 664 Athleten, 500 Kontrollen.

Verlauf körperlicher Aktivität und Depressionsrisiko

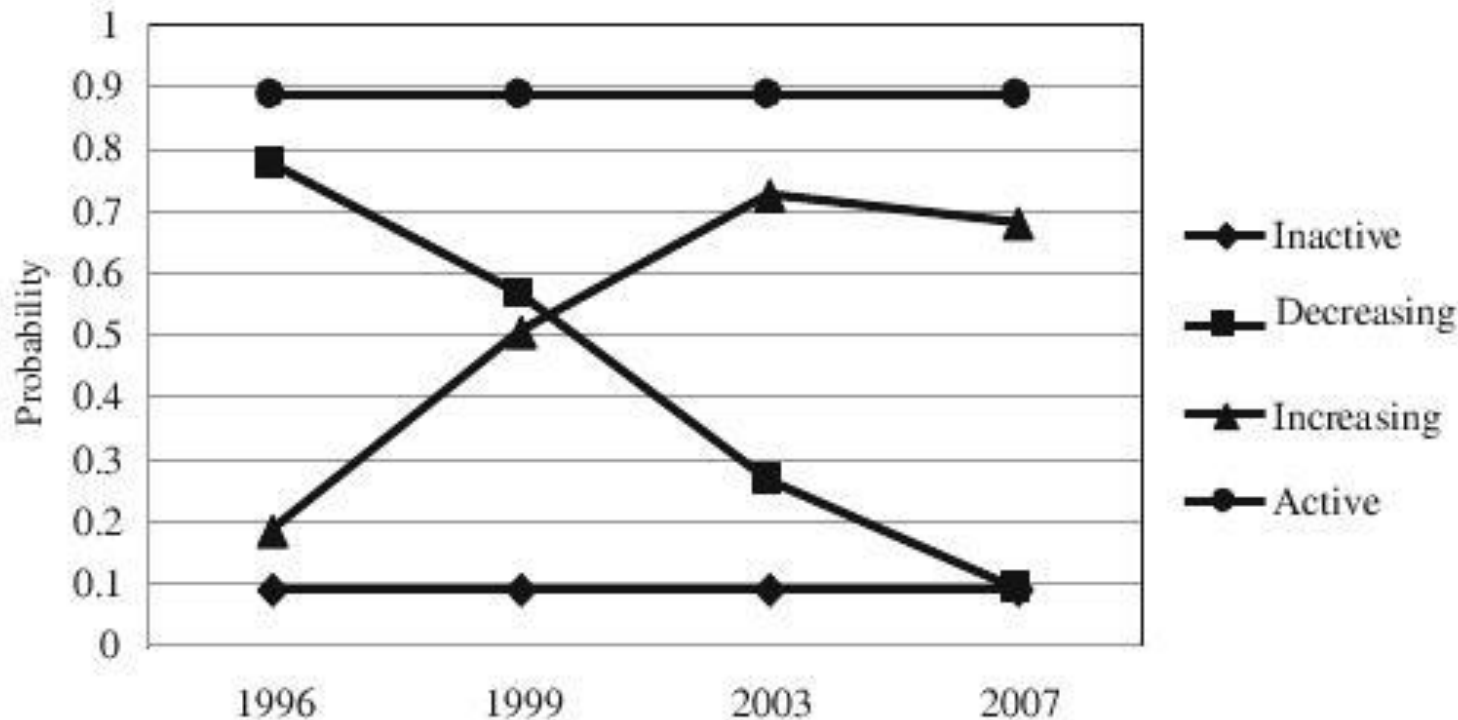
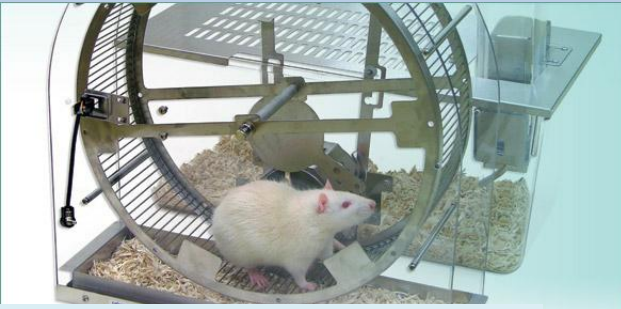


Fig. 1 Trajectory patterns of being physically active. $N=4,018$ persons (15,437 observations). The percentages of the trajectory groups: the “inactive” group, 47.83 %; the “decreasing” group, 12.21 %; the “increasing” group, 23.36 %; and the “active” group, 16.60 %

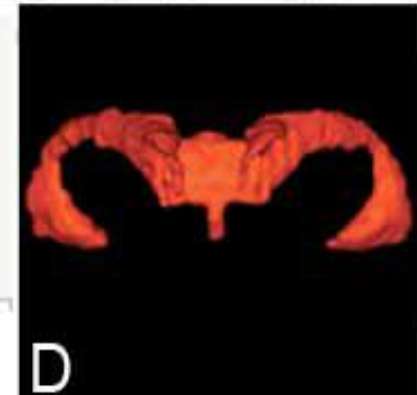
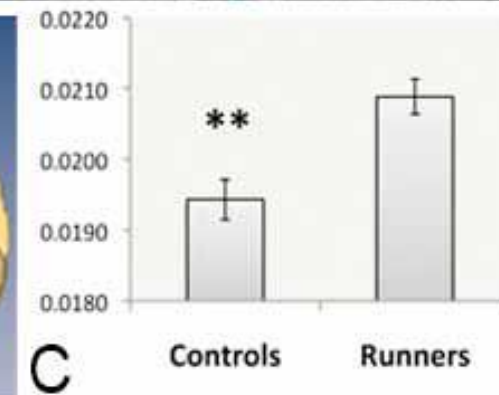
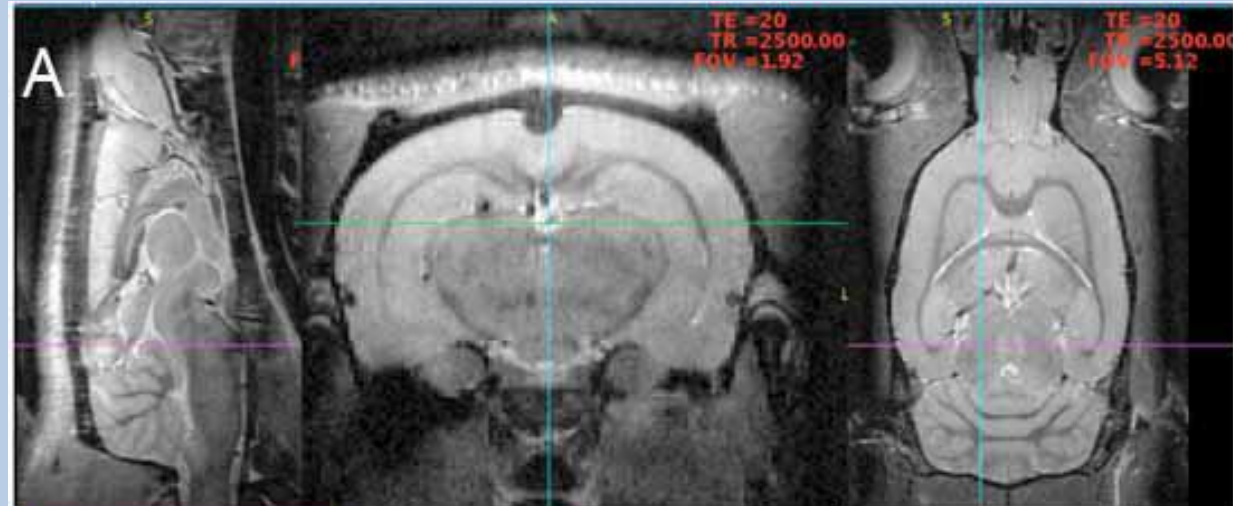
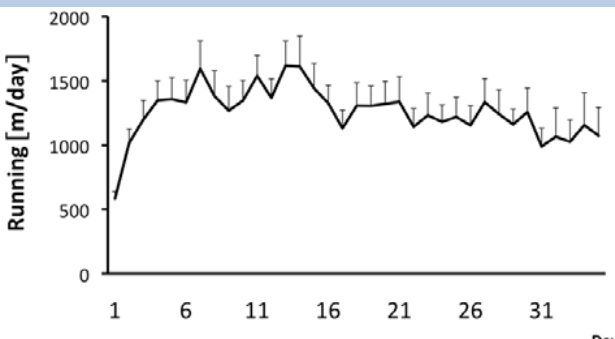
$N = 4018$.

Körperliche Aktivität als therapeutische Intervention bei Depression im Alter

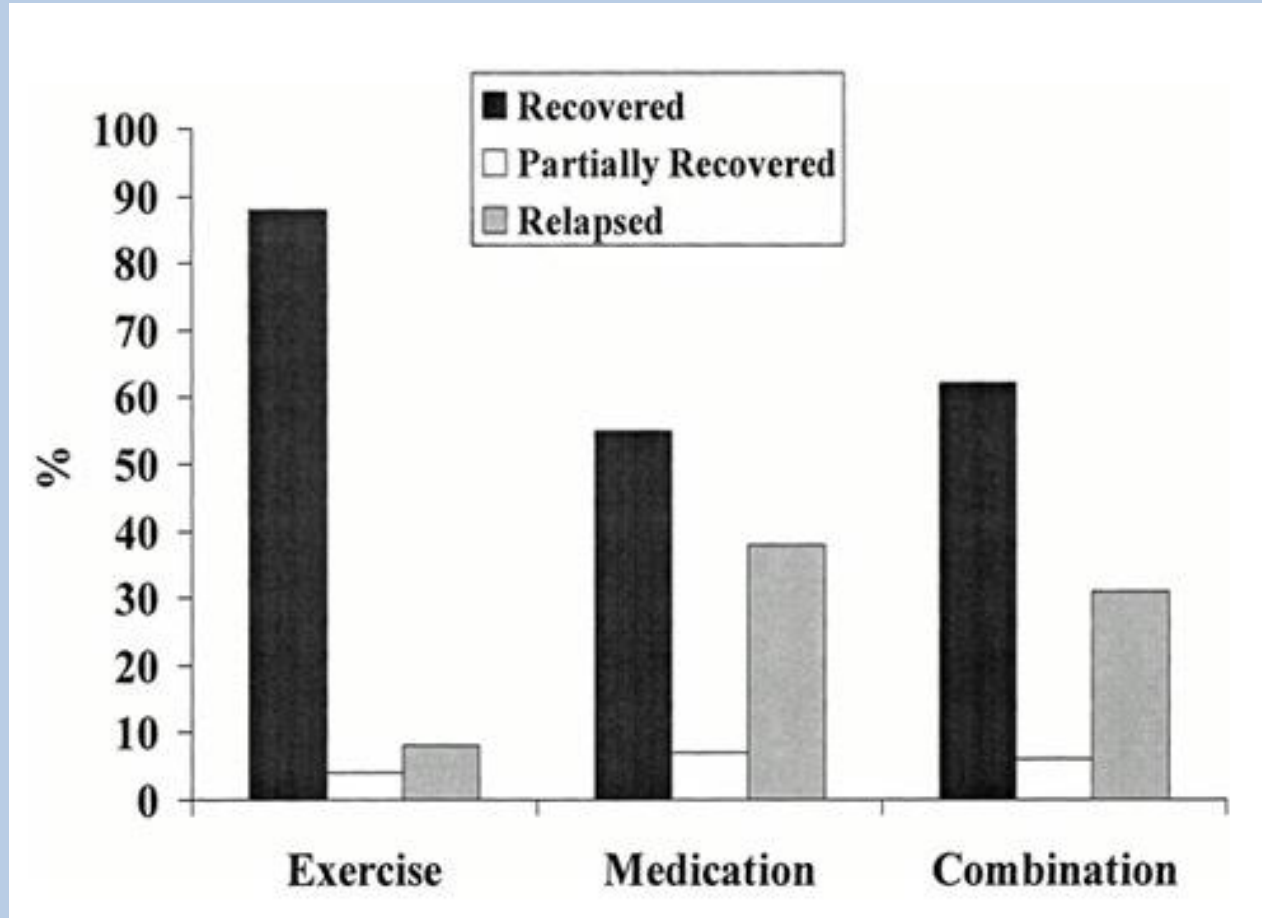
It's a rat race: Körperliche Aktivität bei Depression im Tiermodell



FSL Rats:
Genetisches Stressmodell

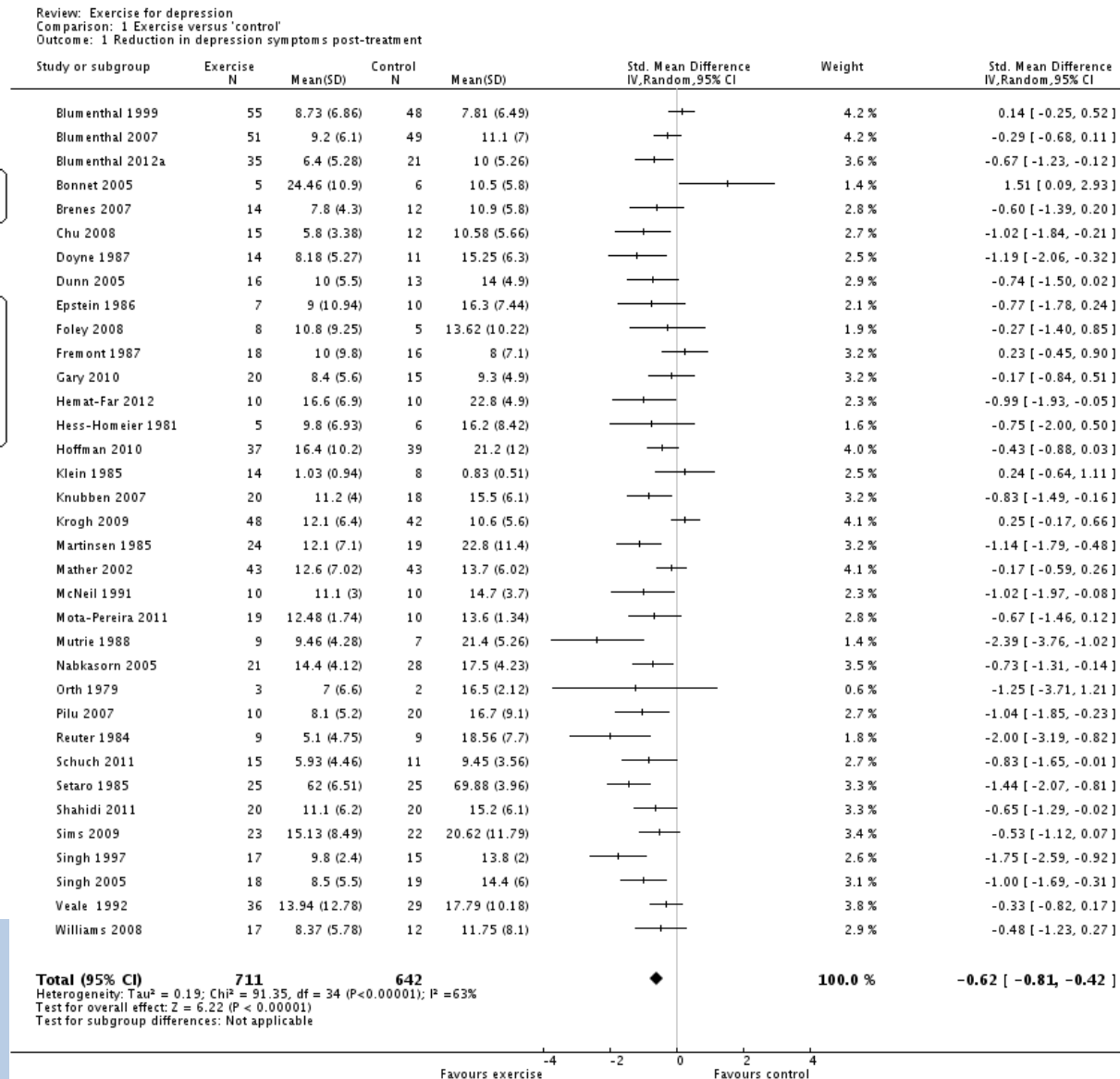
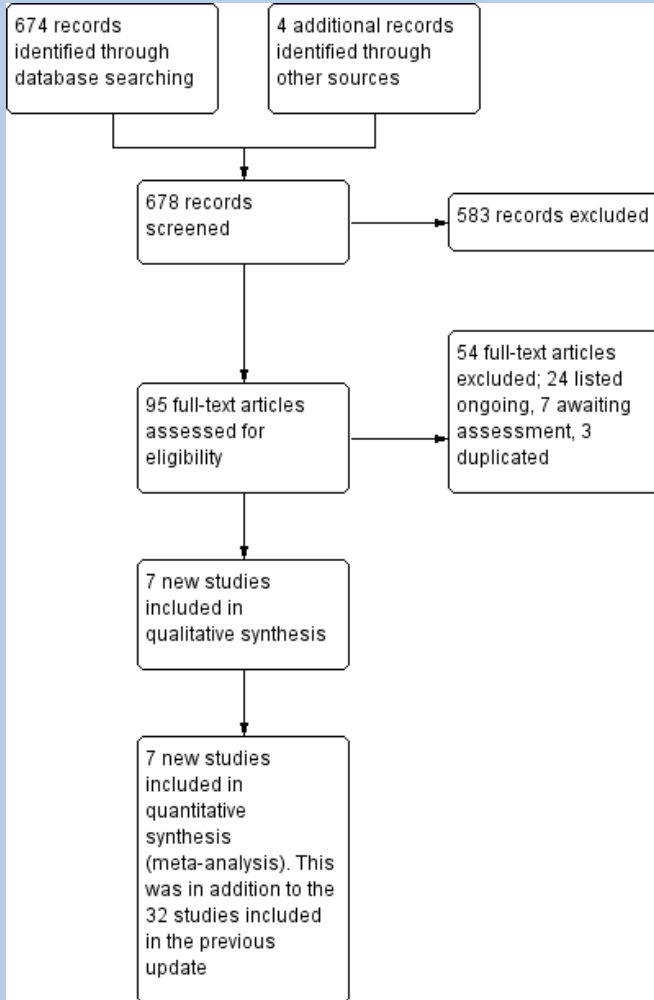


Körperliches Training bei Depression

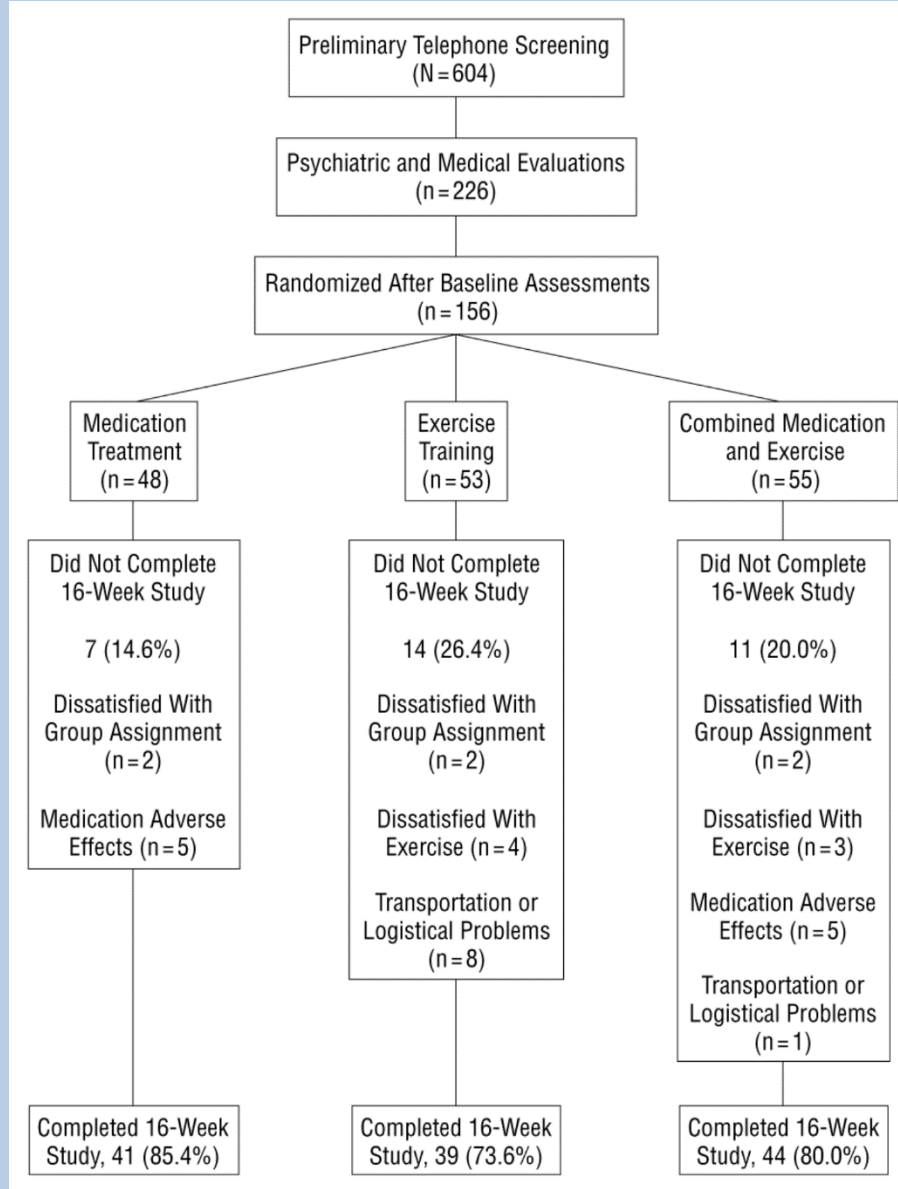


Babyak M et al. Psychosom Med 2000

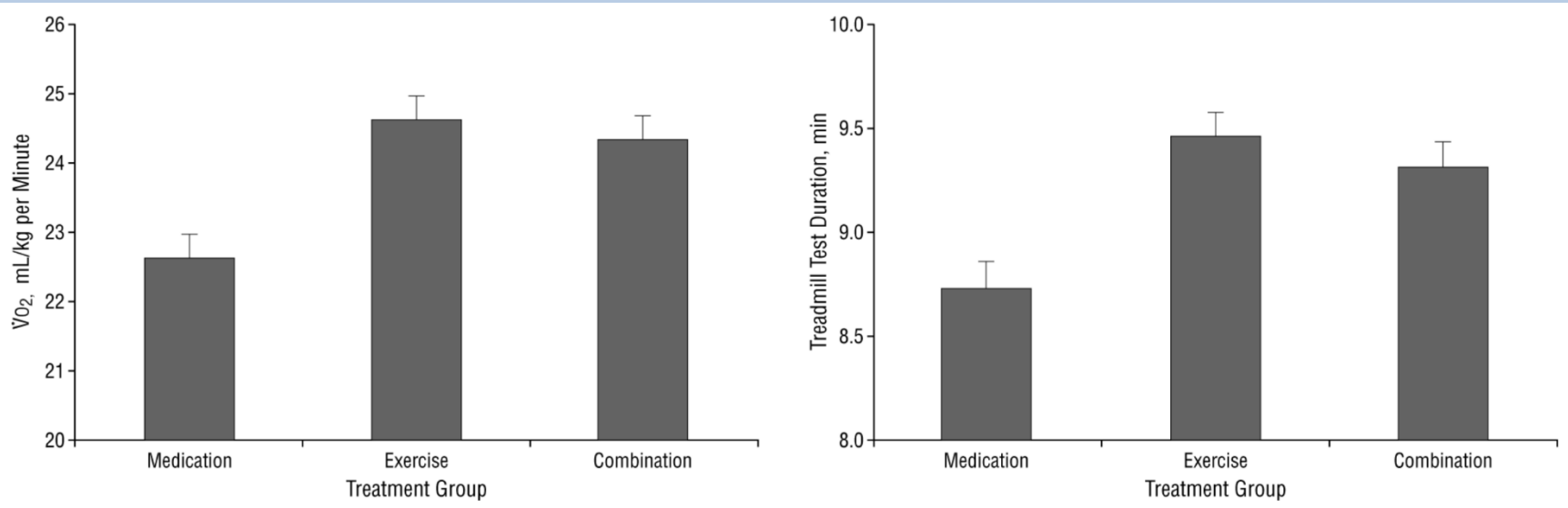
Körperliches Training bei Depression bei Erwachsenen: Metaanalyse



Sport und Depression im Alter: Blumenthal 99

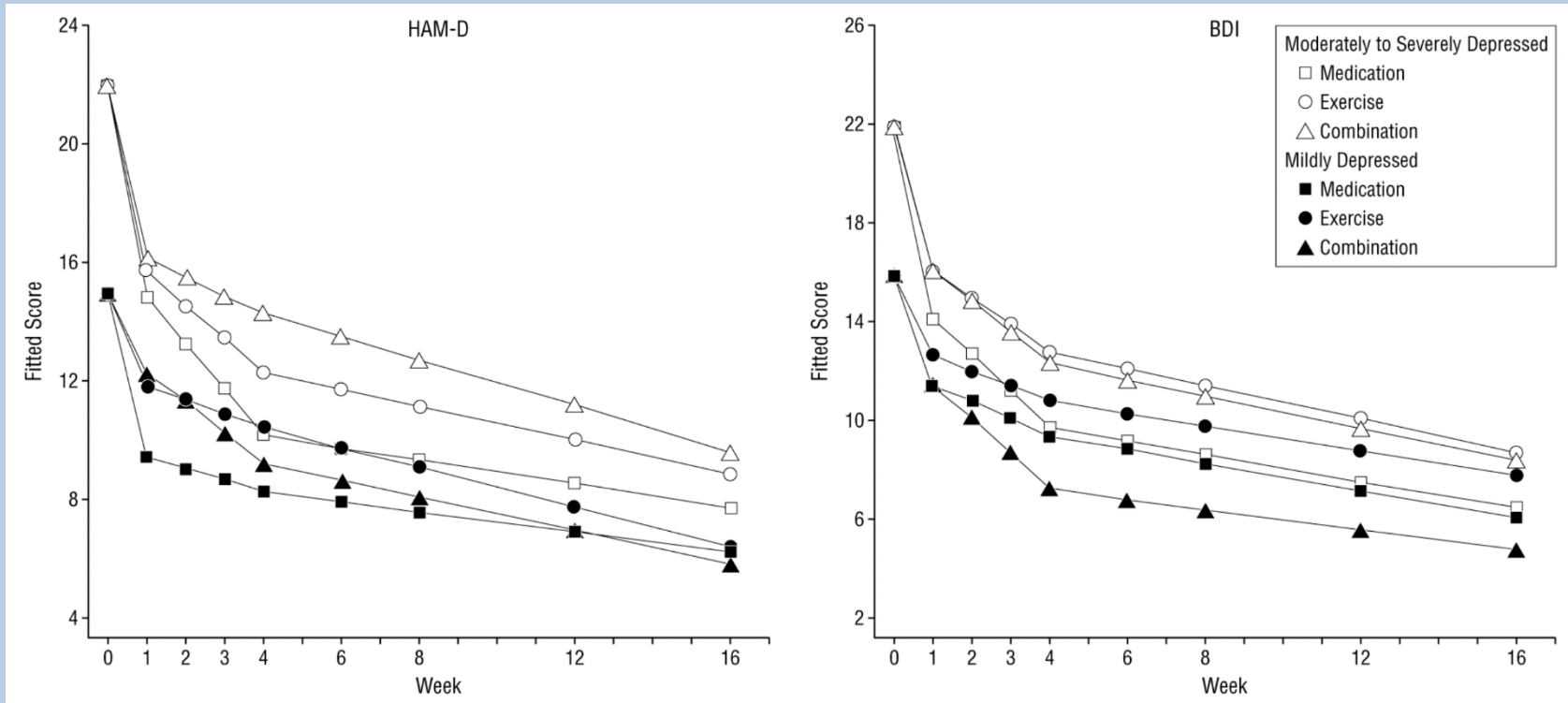


Sport und Depression im Alter: Blumenthal 99



Compared with patients in the medication group, those in the exercise and combination groups showed significantly higher aerobic capacity (VO_2) (left) and longer treadmill test duration (right) after 16 weeks of treatment. Error bars represent SEs.

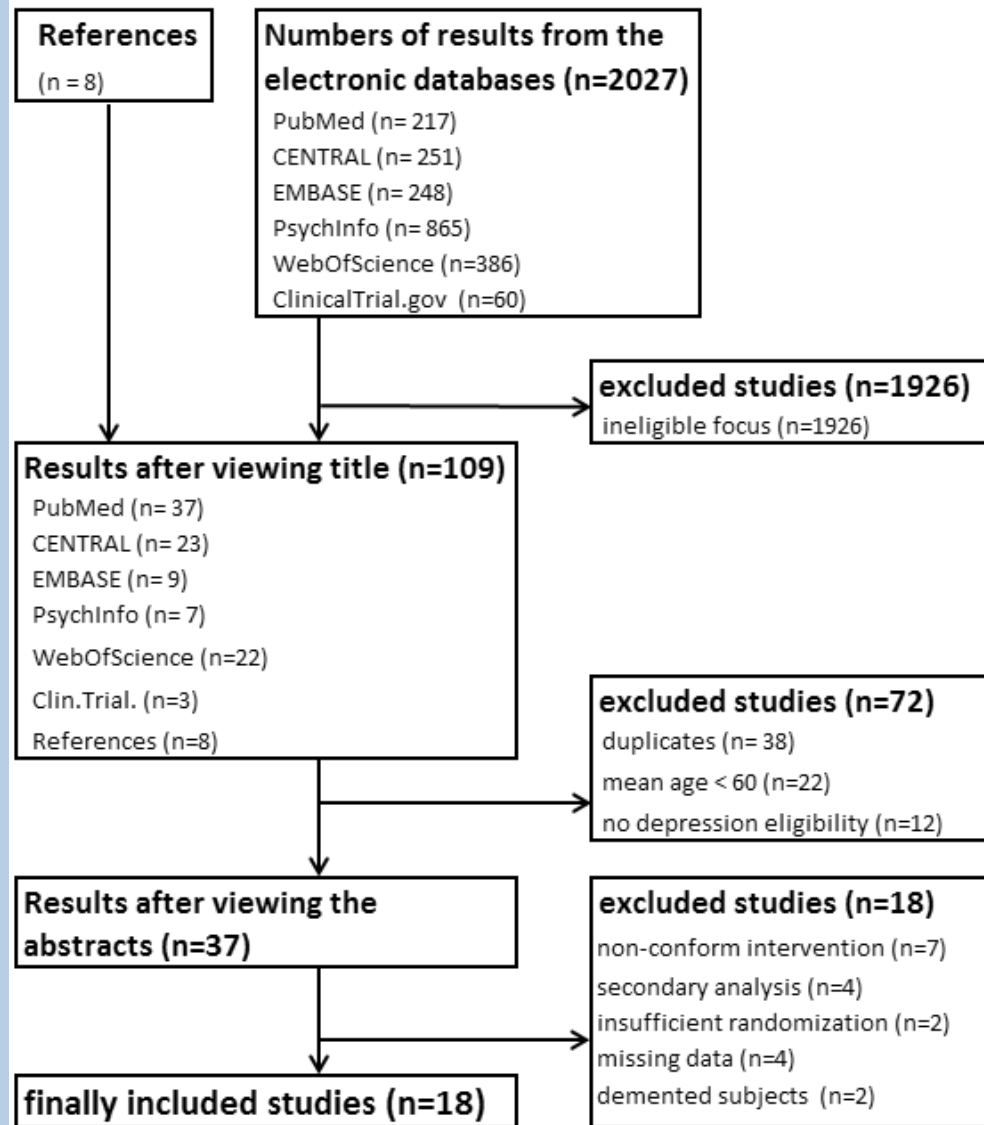
Sport und Depression im Alter: Blumenthal 99



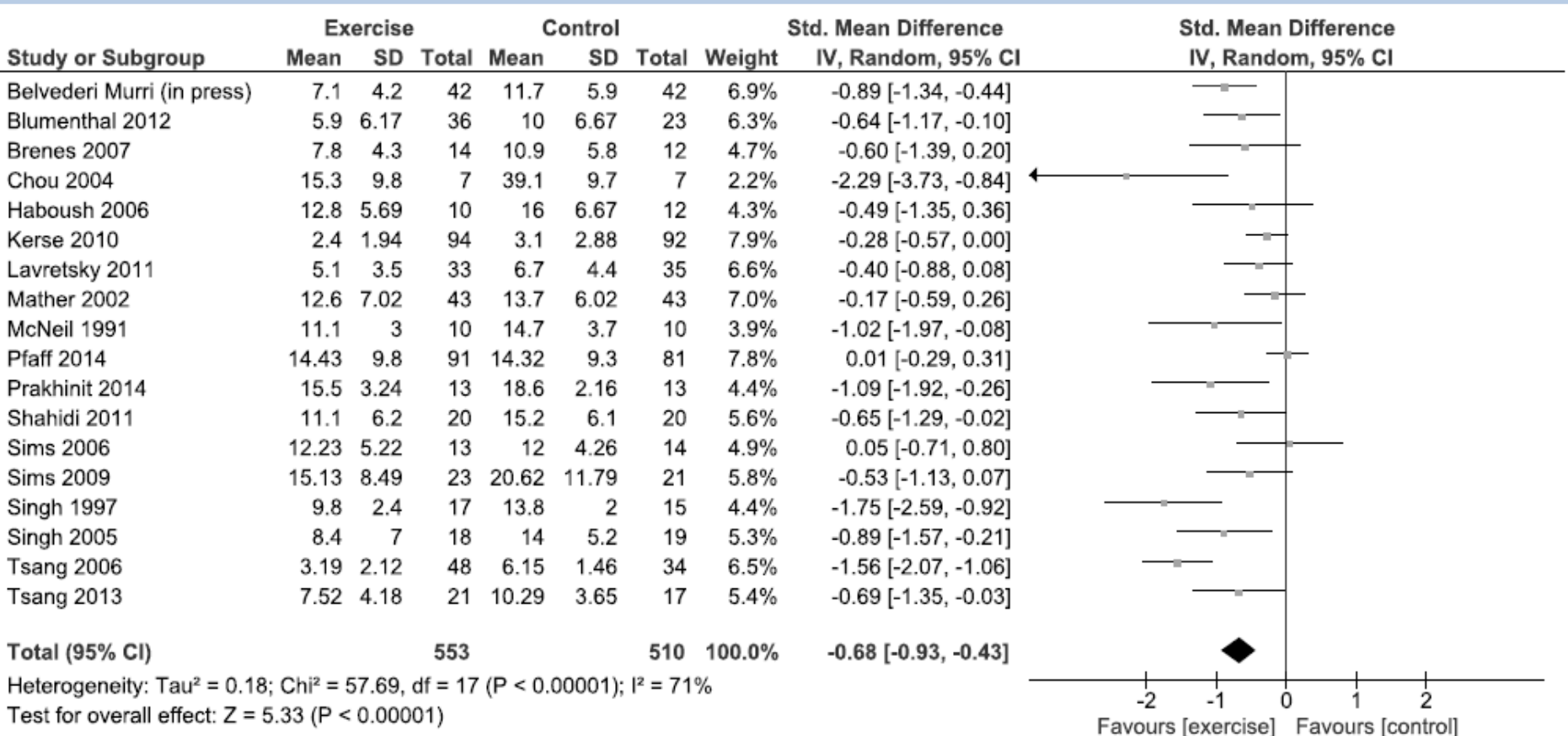
Fitted values for Hamilton Rating Scale for Depression (HAM-D) (left) and Beck Depression Inventory (BDI) (right) across 16 weeks of treatment. Values represent the fitted scores in each treatment group for 2 selected values of baseline depression treatment (22 for moderate to severe and 16 for mild).

Metaanalyse: Sport und Depression im Alter

Flow Chart Literature Search

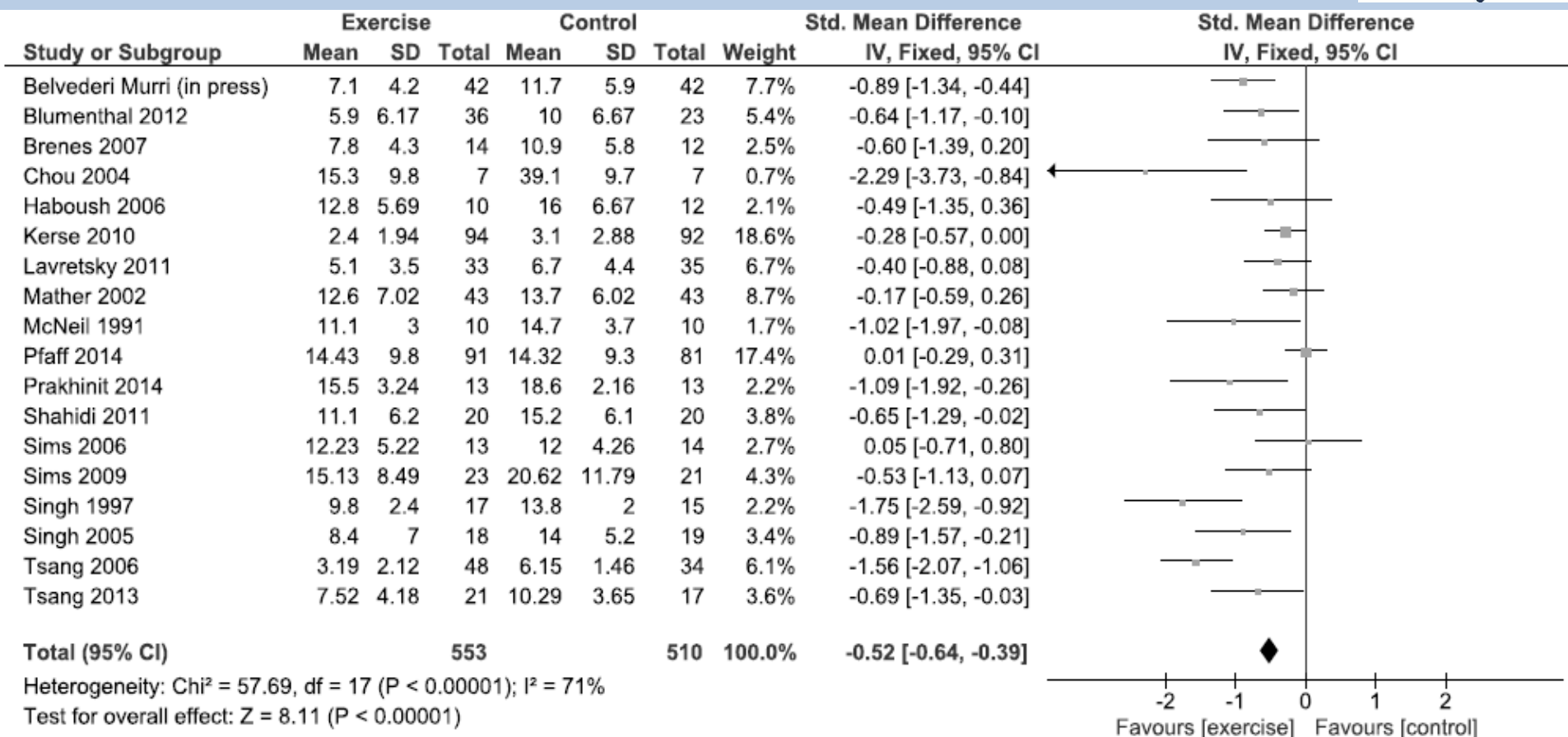


Metaanalyse: Sport und Depression im Alter



Random effects model.

Metaanalyse: Sport und Depression im Alter



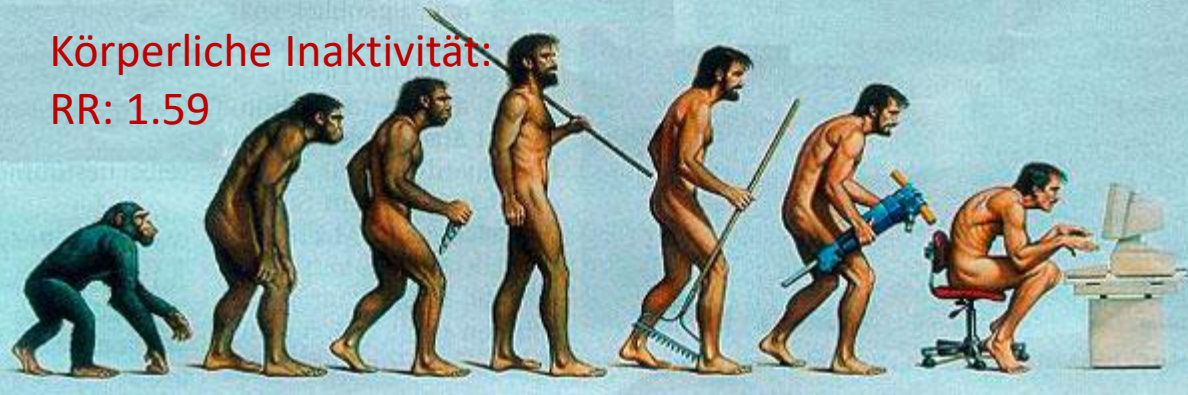
Fixed effects model.

Körperliche Aktivität zur Prävention von kognitivem Abbau im Alter

Veränderbare Risikofaktoren für Demenz

Körperliche Inaktivität:

RR: 1.59



Depression: RR = 1.65



Rauchen: RR = 1.59

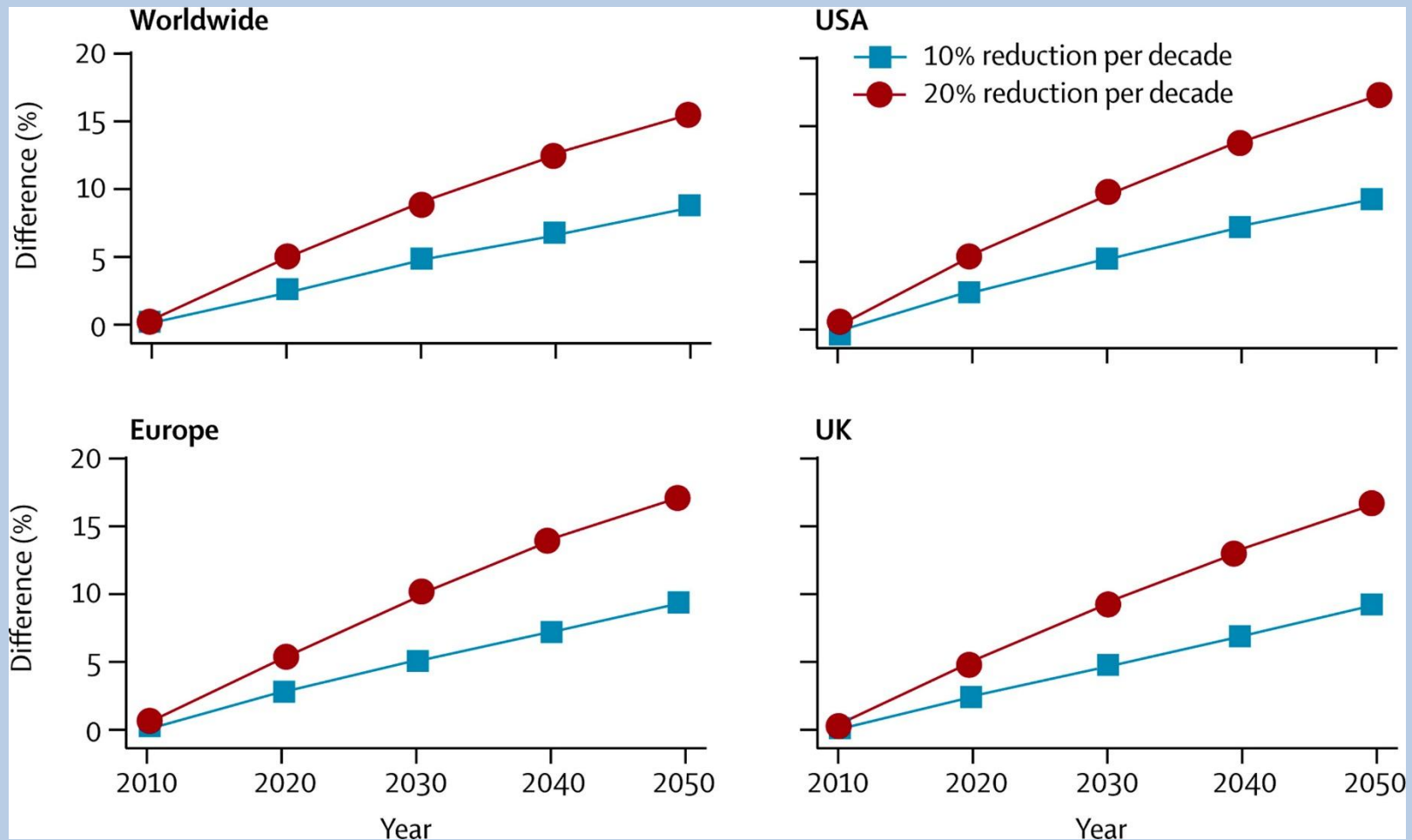


Niedriger Bildungsstand:
RR: 1.59

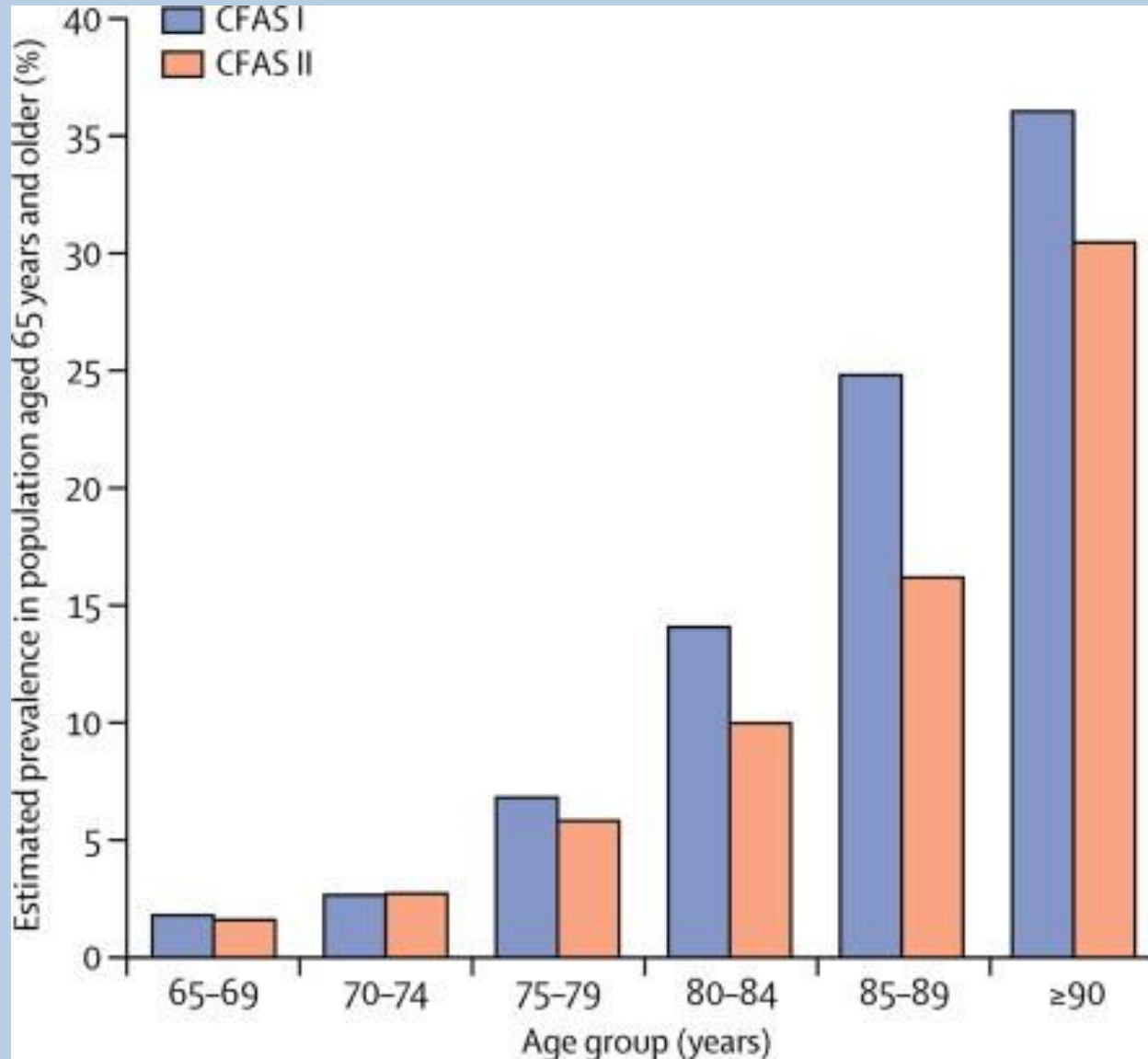


Kardiovaskuläre
Erkrankungen und
Diabetes: RR = 1.46-1.6

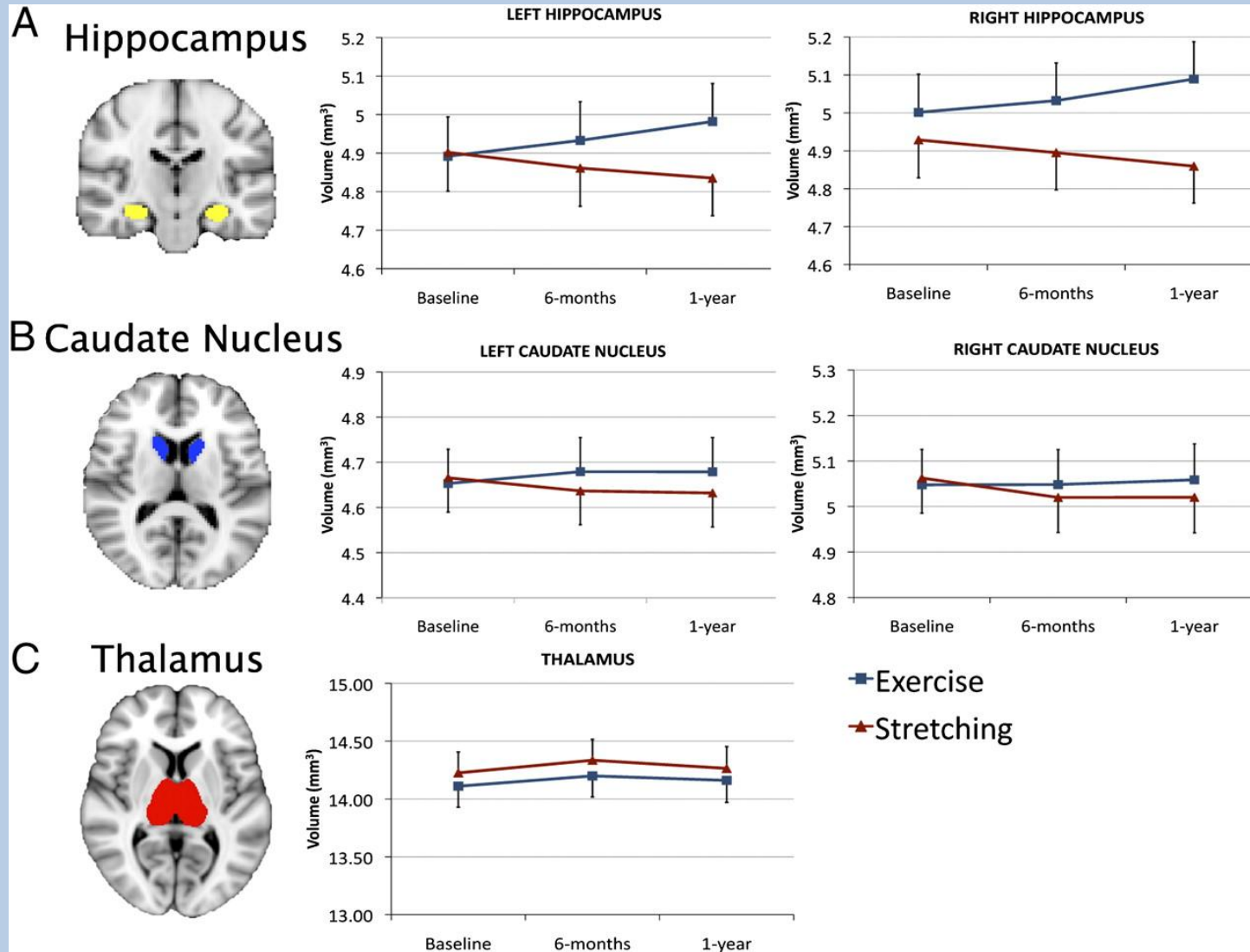
Anteil verhinderbarer Demenzen



Prevalence of dementia by age: CFAS I (1989-94) vs. CFAS II (2008-2011)



Körperliche Aktivität und Gehirnstruktur bei gesunden Älteren



Körperliche Aktivität und kognitiver Abbau im Alter: Ergebnisse der SHARE Studie



Table 1. Characteristics of the sample at baseline

	Physically active (N = 16,037)		Physically inactive (N = 1,296)		p
Baseline		SD		SD	
Time to follow-up, mean, years	2.5	0.6	2.4	0.7	.089
Sex (% female)	53.5		65.7		<.001
ISCED, mean, years	10.3	4.3	7.8	4.6	<.001
Chronic diseases ≥ 2 (%)	39.2		61.0		.001
Age, mean, years	63.6	9.1	70.1	11.1	<.001 (F _{1,17,331} , 586.22)

Table 4. Effects of intensity of activity at baseline on cognitive function at follow-up

Level of activity	DWR Follow-up		VF Follow-up	
Fixed effects	β	SE β	β	SE β
Vigorous activity > 1/week ^{†a}	0.09**	0.03	0.21*	0.10
Vigorous activity 1/week ^{†a}	0.08**	0.03	-0.01	0.13
Vigorous activity 1-3/month ^{†a}	0.09*	0.04	-0.21	0.15
Moderate activity 1/week ^{†bc}	-0.01	0.04	0.42**	0.15
Moderate activity 1/week ^{†bc}	-0.03	0.05	0.16	0.18
Moderate activity 1-3/month ^{†bc}	-0.01	0.06	0.23	0.23

Note. DWR = Delayed Word Recall, VF = Verbal Fluency. [†]Adjusted for age, gender, level of education, chronic diseases, limitations in activities of daily living and instrumental activities of daily living, grip strength, EURO-D score, body mass index. ^aReference group is hardly any or no vigorous activity, ^bReference group is hardly any or no moderate activity, ^cAdditionally adjusted for vigorous activity. ** $p < .01$, * $p < .05$.

Körperliche Aktivität und genetisches Demenzrisiko

Risiko für Demenz 10 Jahre später (OR)

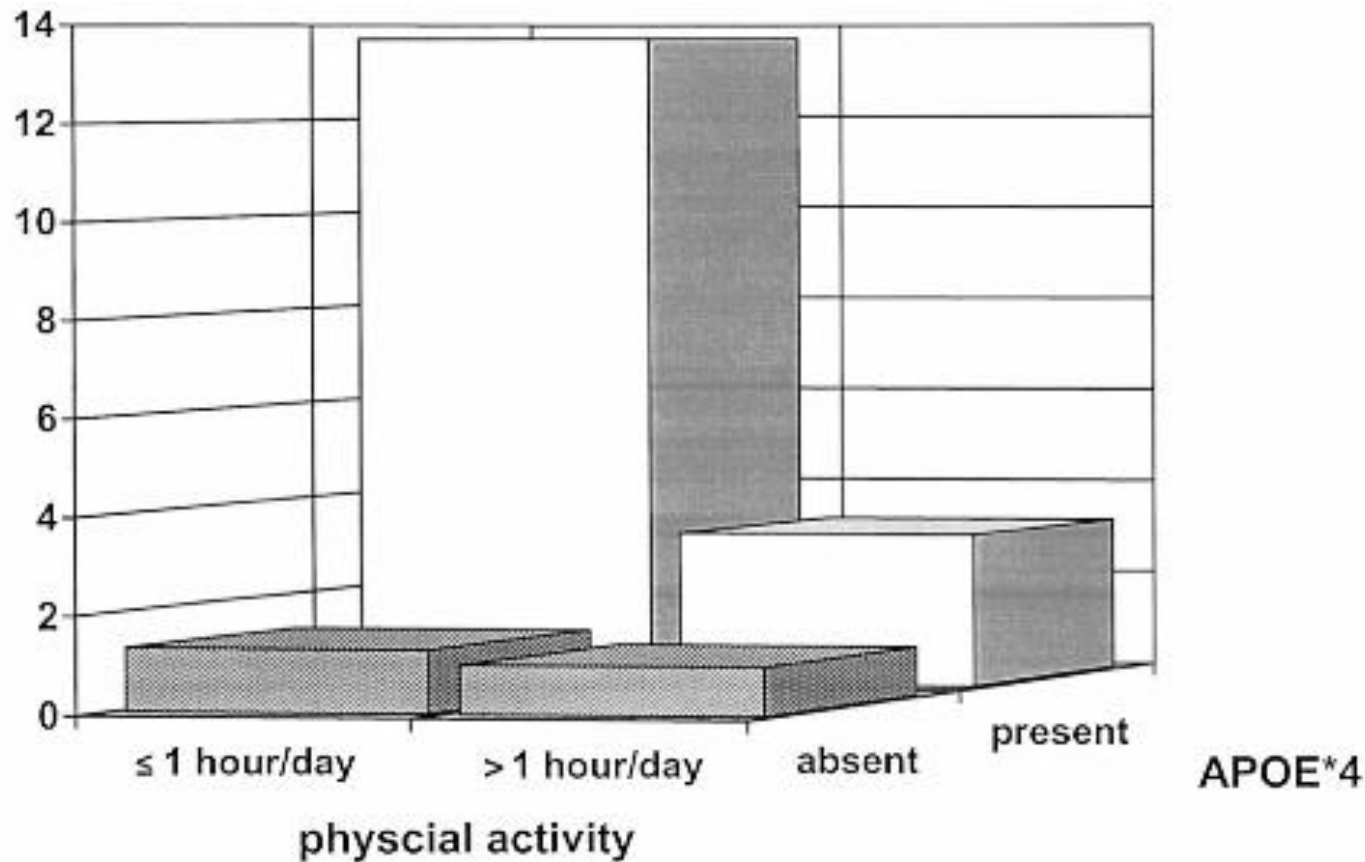
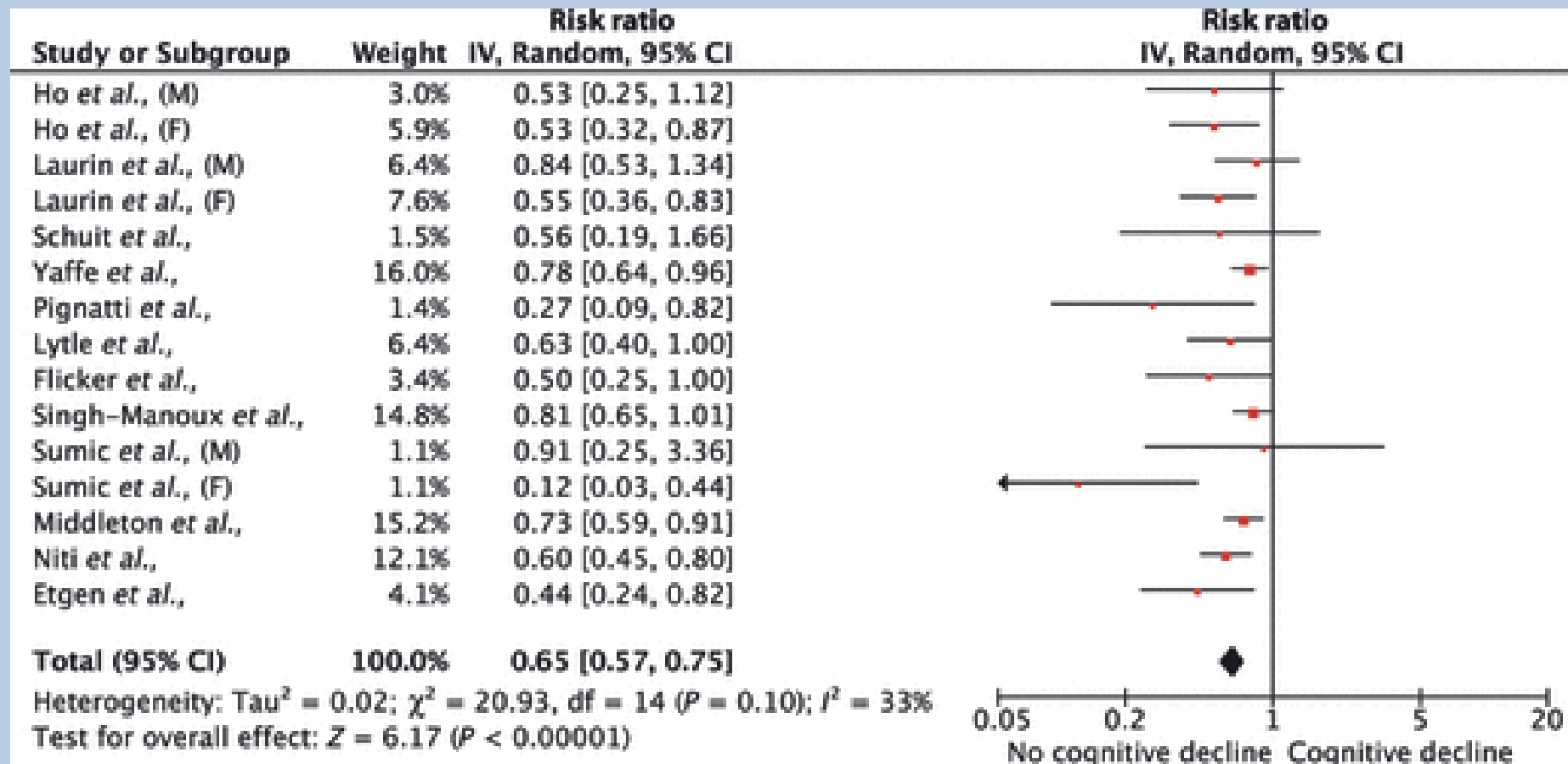


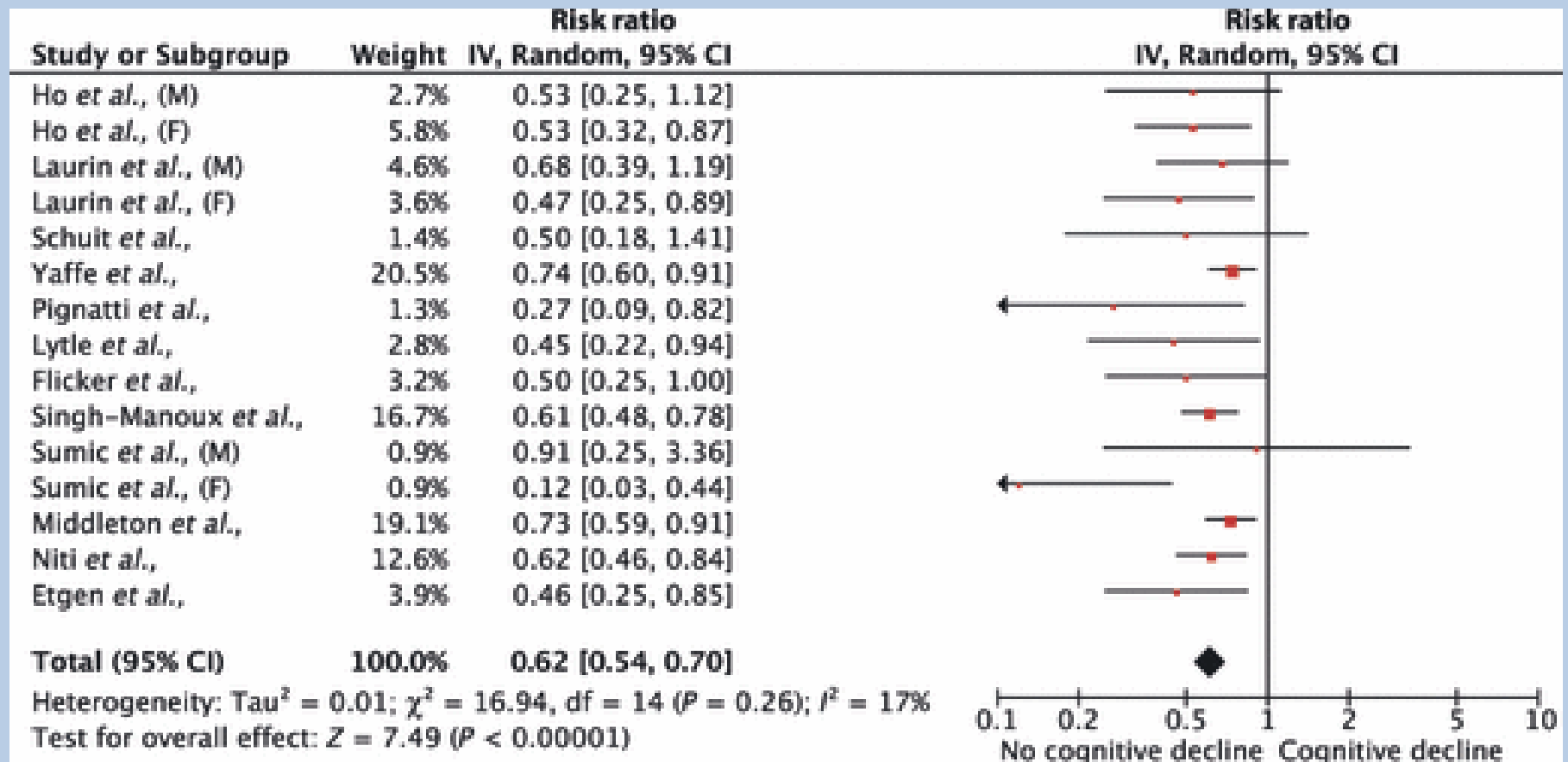
FIGURE 1—Adjusted odds ratios for cognitive decline; adjusted for age and education, MMSE 1990.

Metaanalyse: Körperliche Aktivität zur Prävention von “cognitive decline”:

Leichte bis Moderate körperliche Aktivität

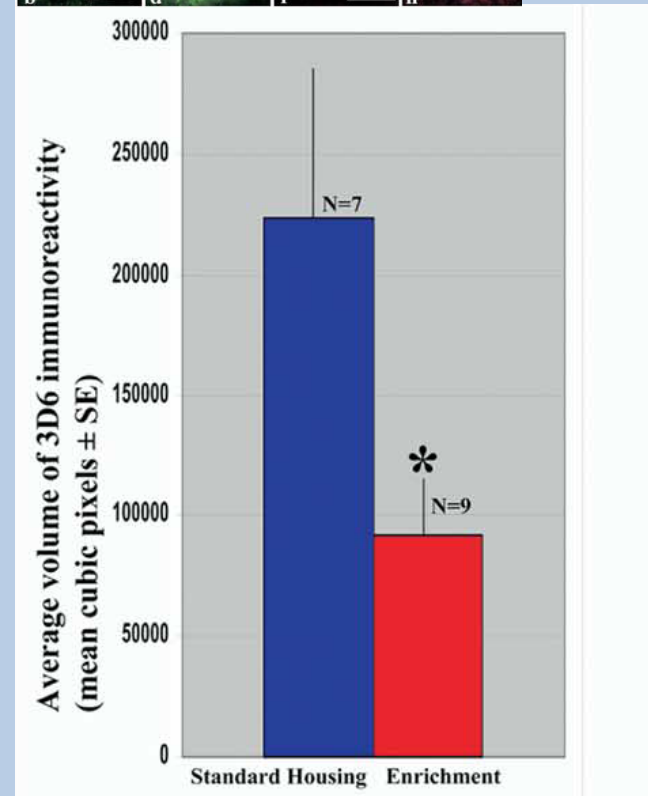
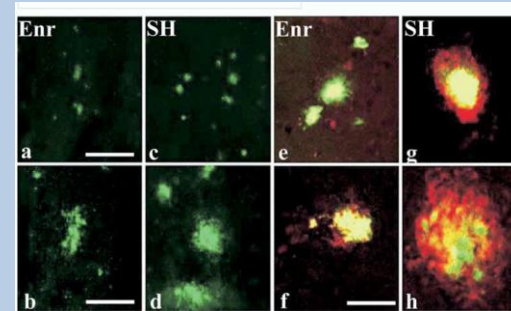


Körperliche Aktivität zur Prävention von “cognitive decline”: Starke körperliche Aktivität



Körperliche Aktivität als therapeutische Intervention bei leichter kognitiver Störung und Demenz im Alter

Enriched Environment bei Alzheimer Mäusen



Enriched Environment/Neurogenesis
(Lazarov et al., 2005; Kempermann & Kronenberg, 2003)

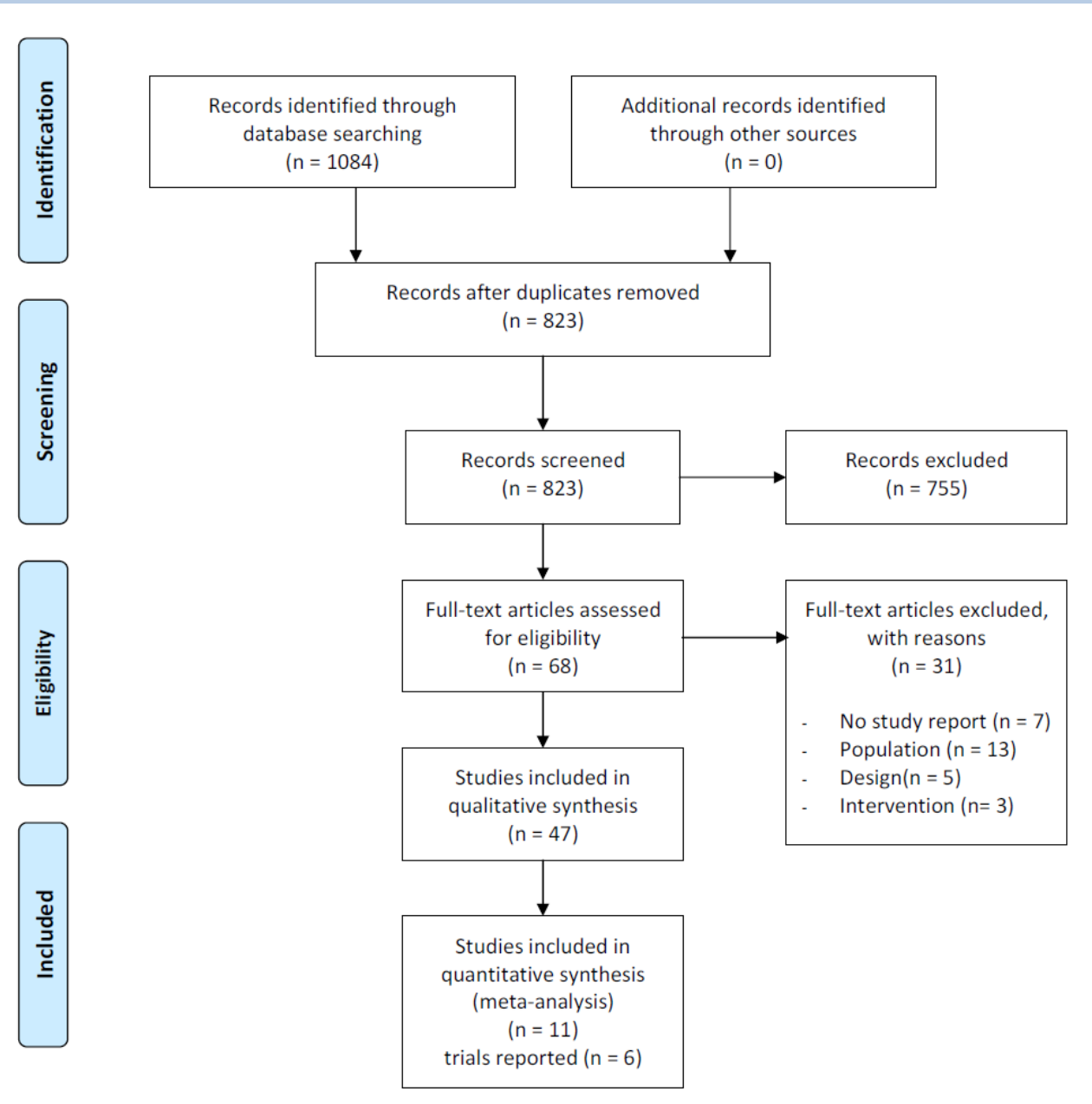
Körperliche Aktivität bei MCI



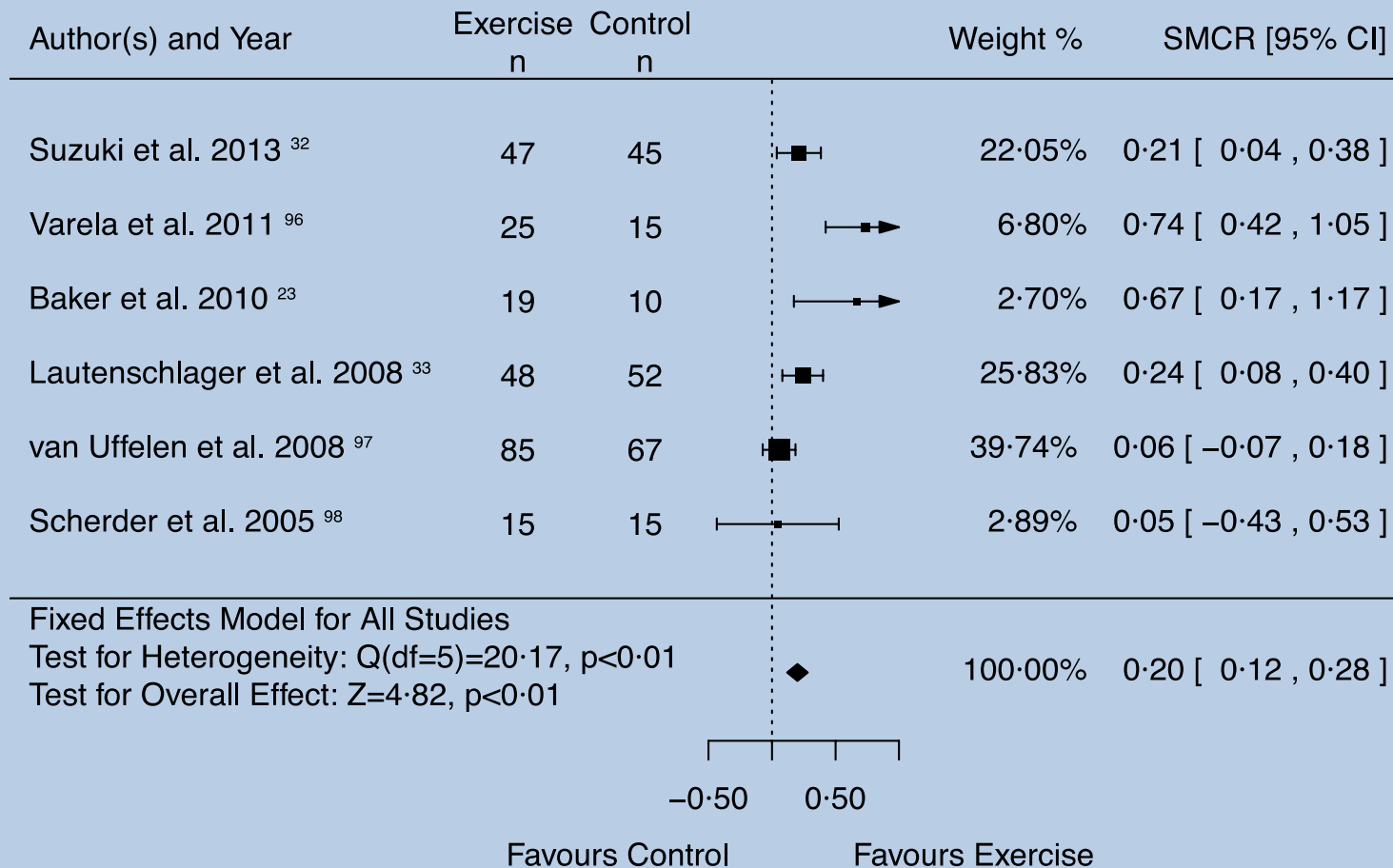
Königin
Brief
Lampe
Motor
Gras
Strand

Measure, mo	Mean Difference From Baseline (95% CI)	
	Exercise Group (n = 69)	Control Group (n = 69)
Total ADAS-Cog score ^c		
6	-0.50 (-1.26 to 0.26)	0.79 (0.03 to 1.55)
12	-0.49 (-1.24 to 0.26)	0.41 (-0.21 to 1.03)
18	-0.61 (-1.34 to 0.12)	0.5 (-0.14 to 1.14)

Metaanalyse: Körperliche Aktivität bei MCI

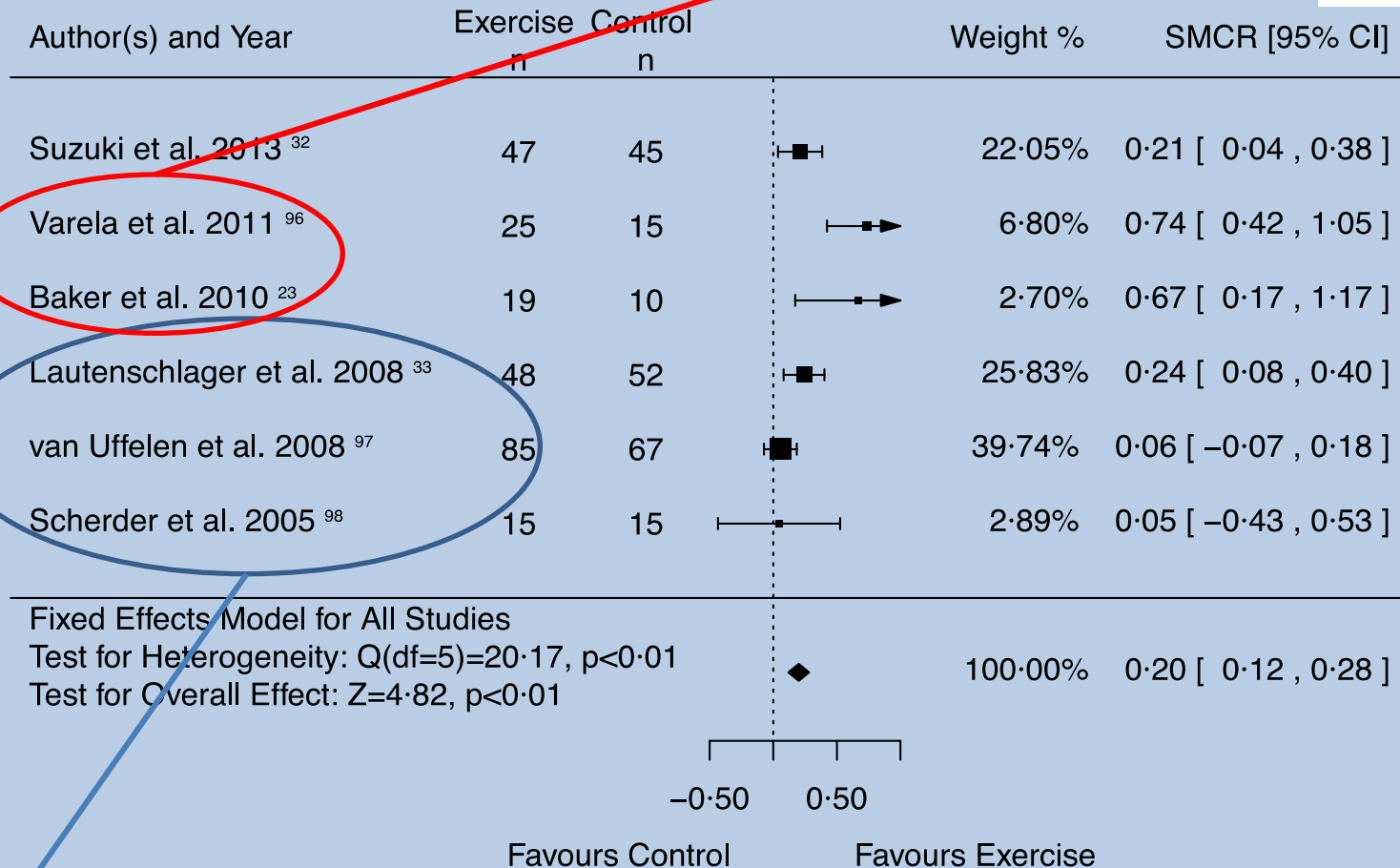


Metaanalyse: Körperliche Aktivität bei MCI



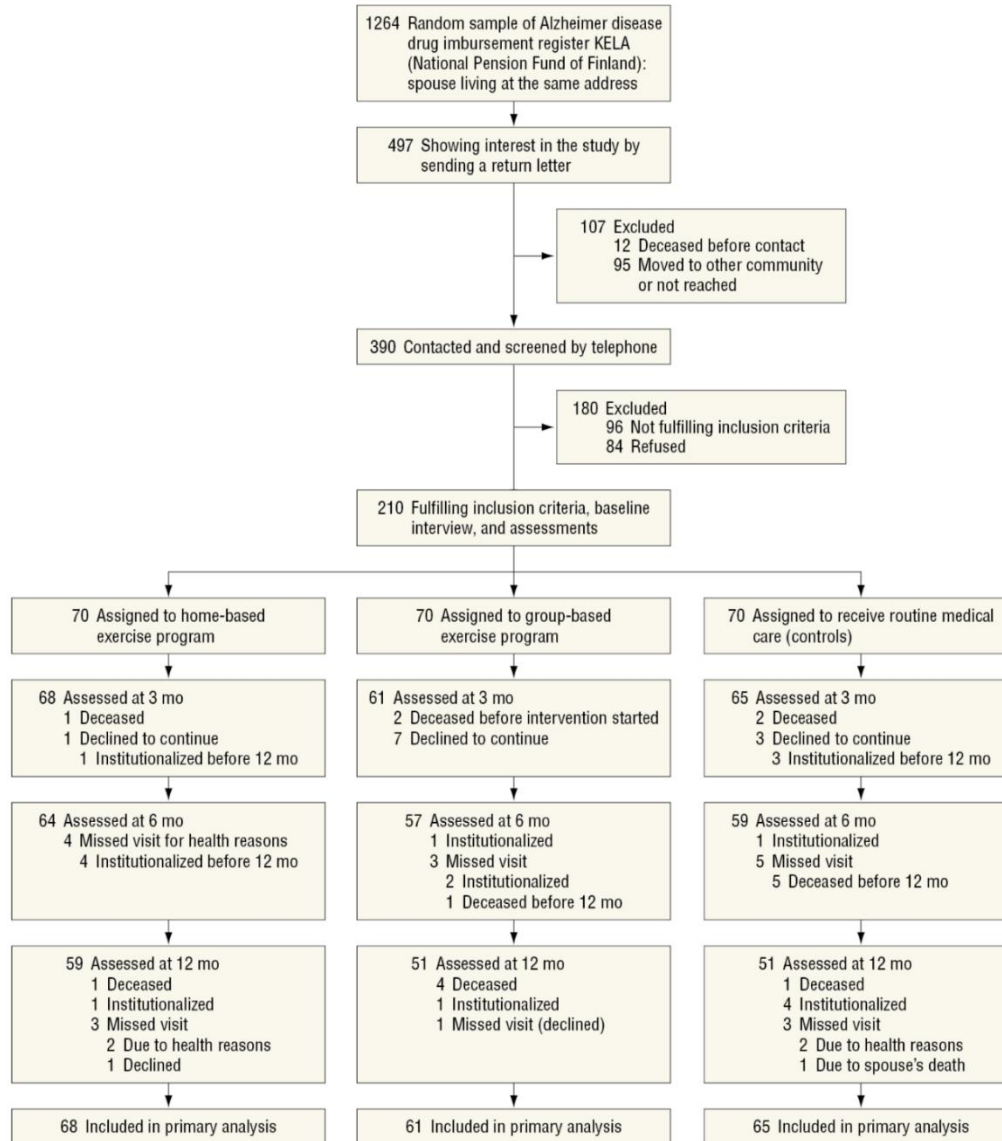
Dosiseffekte bei MCI

60-85% Hfmax
3-4x/Woche
45-60 min

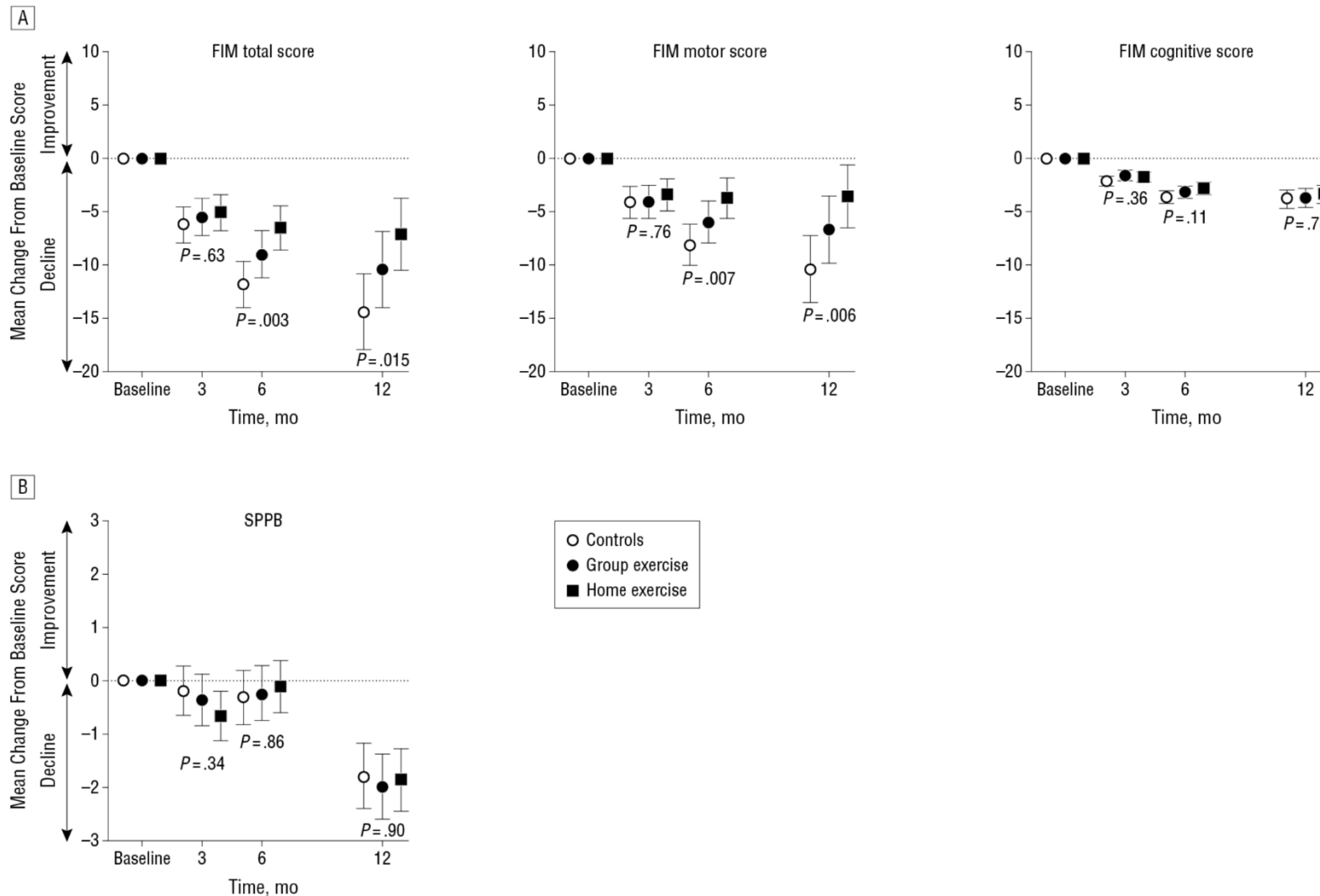


Moderates Gehen
2-3x/Woche
30-60 min

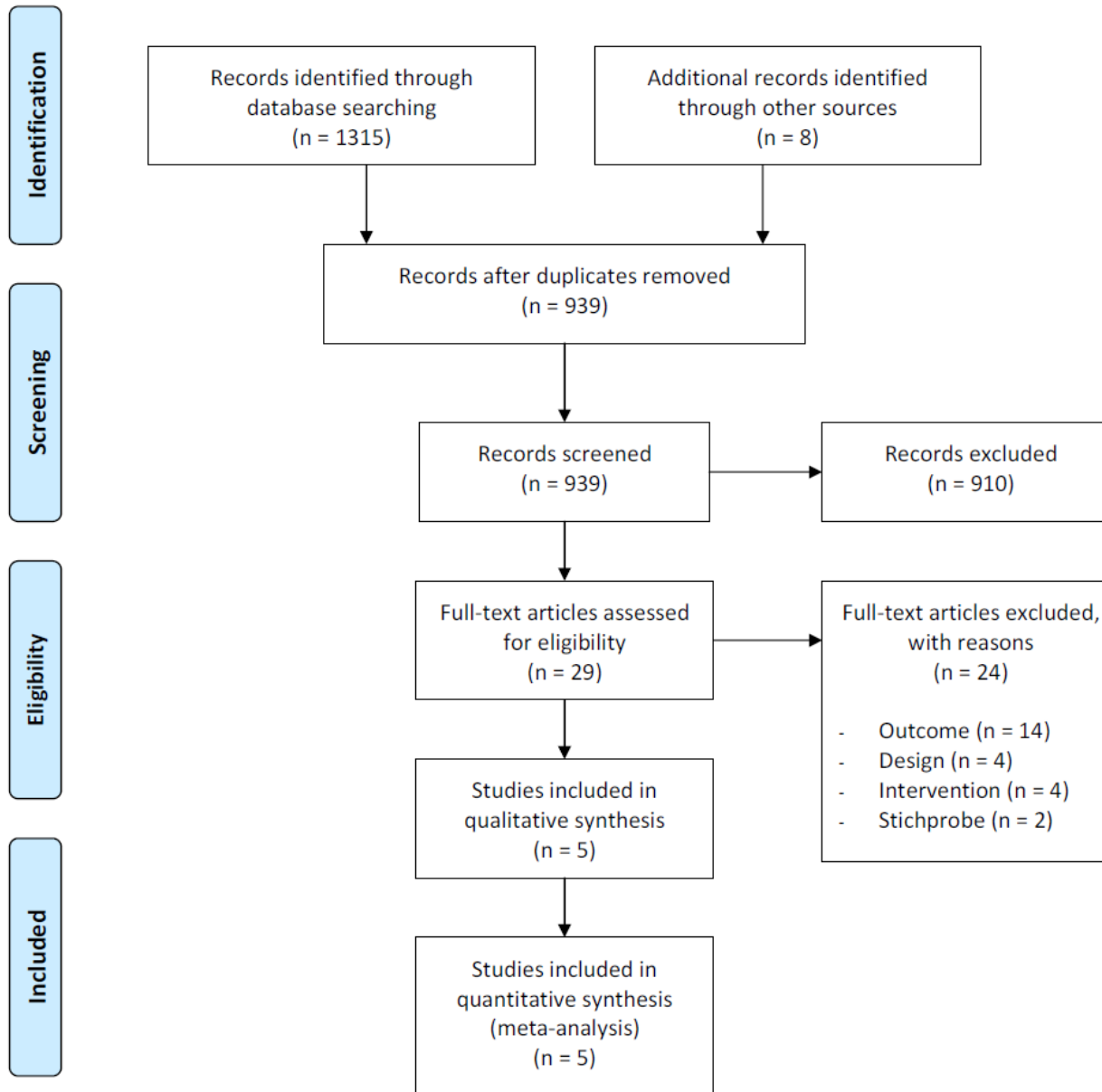
Körperliche Aktivität bei Demenz: Finnish Alzheimer Disease Exercise Trial (FINALEX)



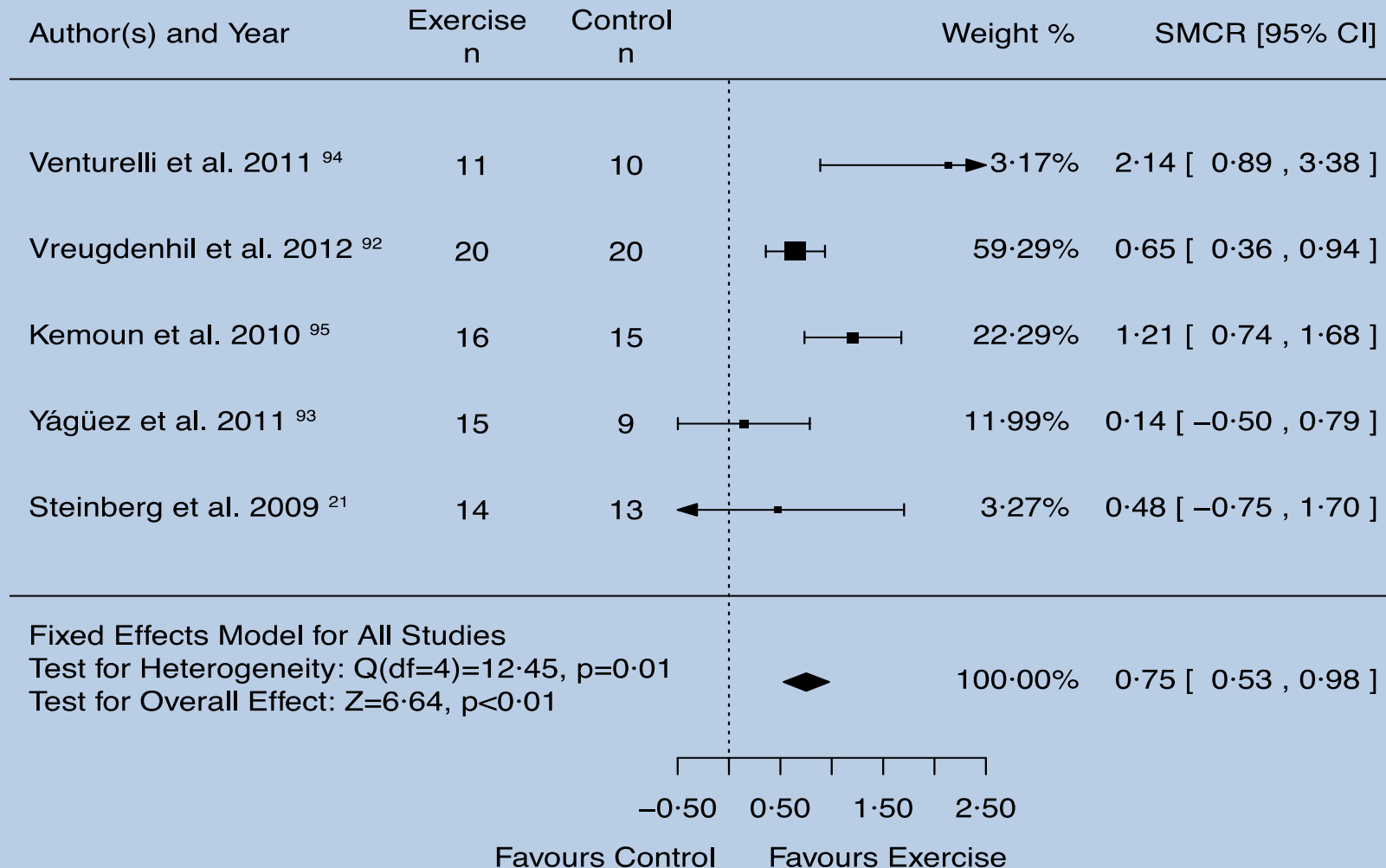
Finnish Alzheimer Disease Exercise Trial (FINALEX): A Randomized Controlled Trial



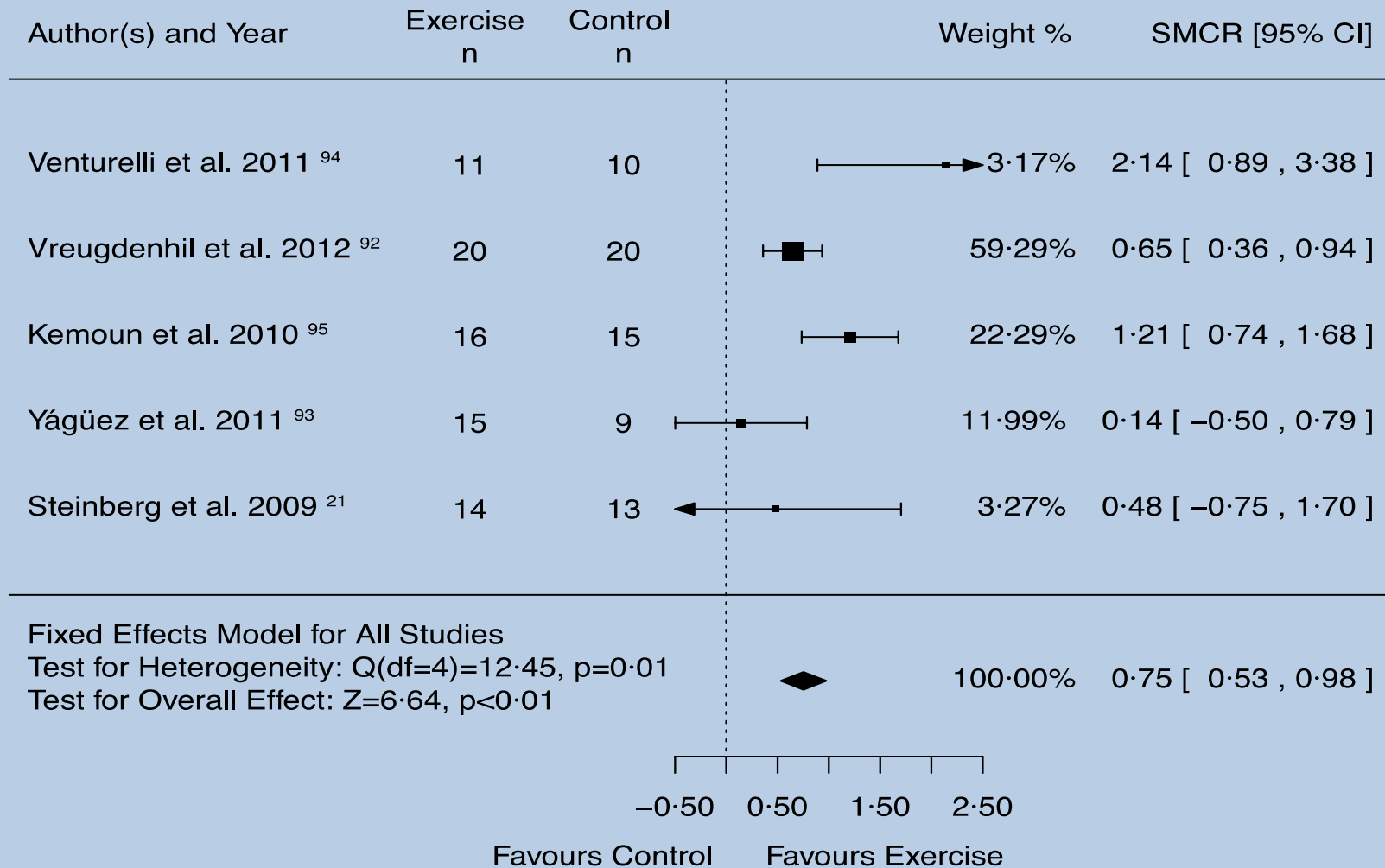
Metaanalyse: Körperliche Aktivität bei Alzheimer-Demenz



Metaanalyse: Körperliche Aktivität bei Alzheimer-Demenz



Dosis bei Alzheimer-Demenz: kein klares Muster



Körperliche Aktivität und erfolgreiches Altern

- Grosser Anteil modifizierbarer Risiken bei Demenz und Depression
- Teilweise (kardiovaskulär, Diabetes, körperliche Aktivität) überlappende Zielrisiken

- Bei Depression im Alter beginnende Hinweise auf Evidenz
- Die Dosis-Wirkungsbeziehung ist im Alter offen



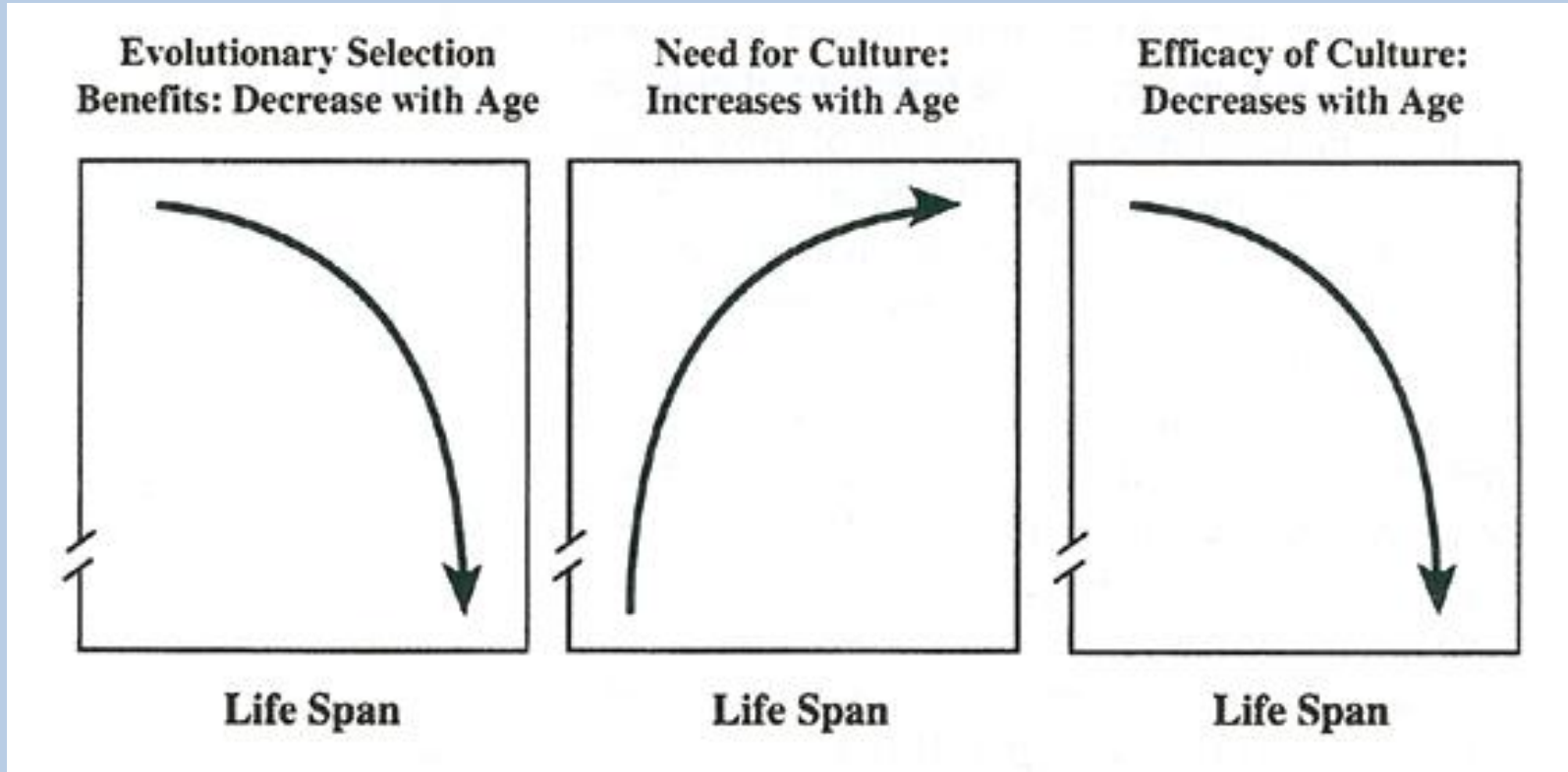
Dosis-Wirkungs- und Interventionsstudien sind zunächst erforderlich

- MCI und AD: deutliche Hinweise auf Evidenz für körperliche Aktivität
- Bei MCI dosisabhängig



Interventions- (definitive trials) und Versorgungsstudien sind erforderlich

Erfolgreich Altern: Soziokulturelle Plastizität



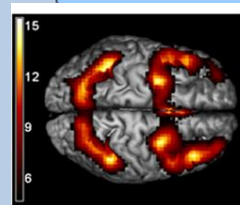
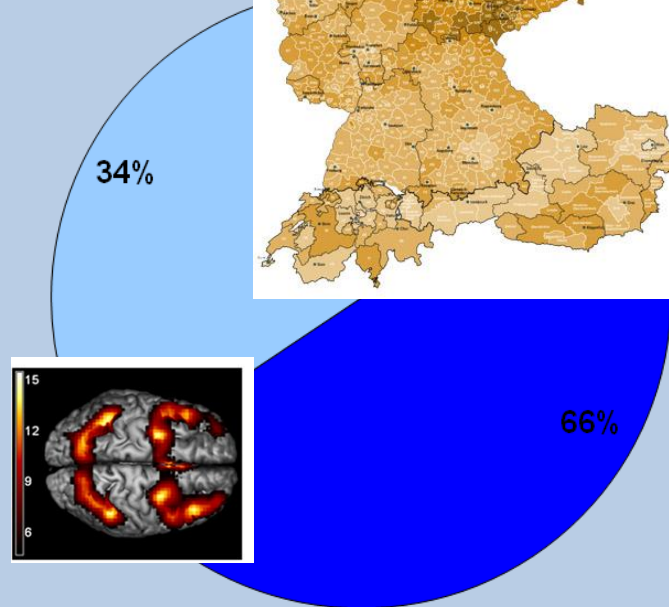


Unterwegs zu demenzfreundlichen Kommunen

Eine Initiative der Aktion Demenz e. V.



Soziokulturelle Plastizität: Erfolgreich Versorgen

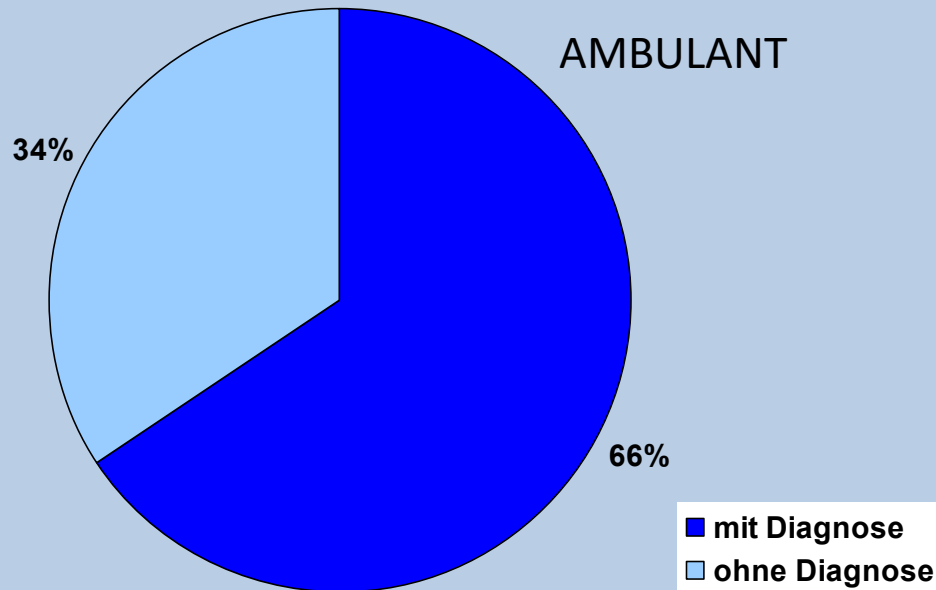


In Deutschland leben etwa 1.300.000 Menschen mit Demenz, davon 700.000 in Pflegeheimen (Schäufele et al., 2013)

BASICS der leitliniengerechten Versorgung Demenzkranker

1. Diagnostik
2. Angehörigenberatung
3. Nichtmedikamentöse Verfahren
4. Risikoabschätzung bei der Pharmakotherapie
5. Vermeidung von freiheitsbeschränkenden Maßnahmen

Diagnostik



Gutzmann et al., 2008.

34 – 46% nicht spezifisch
diagnostizierte Demenzen!

IM PFLEGEHEIM

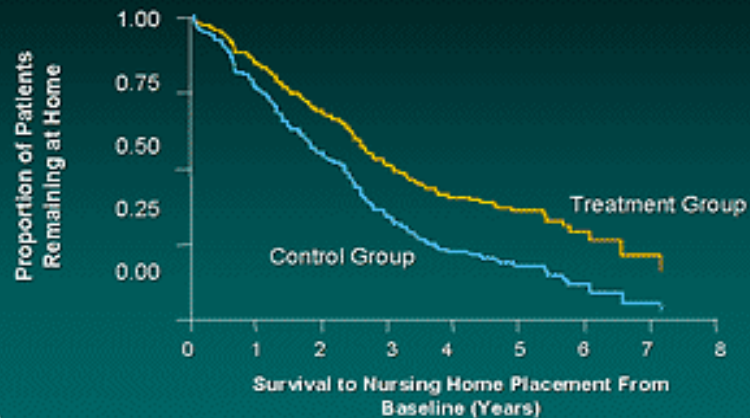
12.000+ Pflegeheimbewohner

Diagnosis of dementia subtype according to ICD 10		Number of NHR (%)
F03:	Unspecified dementia	6,045 (46.4)
F01:	Vascular dementia	2,191 (16.8)
G30:	Alzheimer's disease	2,157 (16.5)
F00:	Dementia in Alzheimer's disease	1,831 (14.0)
F02:	Dementia in diseases classified elsewhere	195 (1.5)
G31.82 :	Lewy body(ies)(dementia)(disease)	3

Huber et al., 2012.

Angehörigenberatung

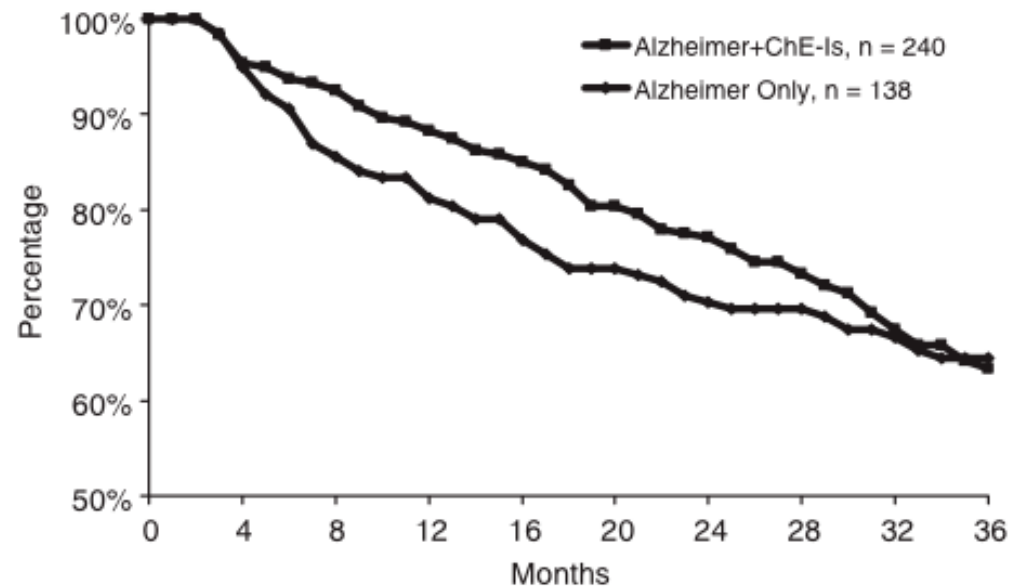
Nursing Home Placement Impact of Support Programs



$P = .02$

Source: Adapted with permission from Mittelman MS et al. *JAMA*. 1996;276:1725-1731. Copyright American Medical Association.

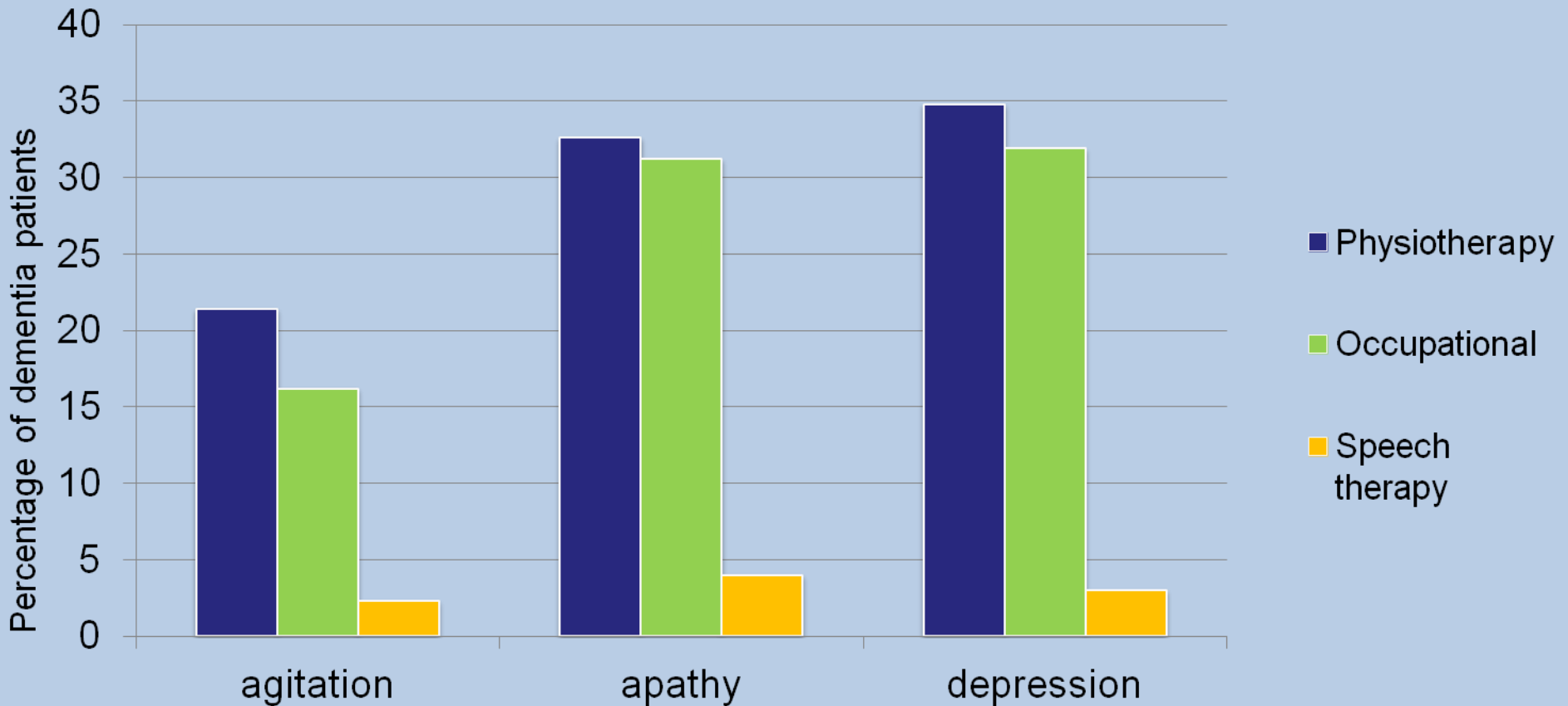
Cholinesterasehemmer
Becker et al. (2006)



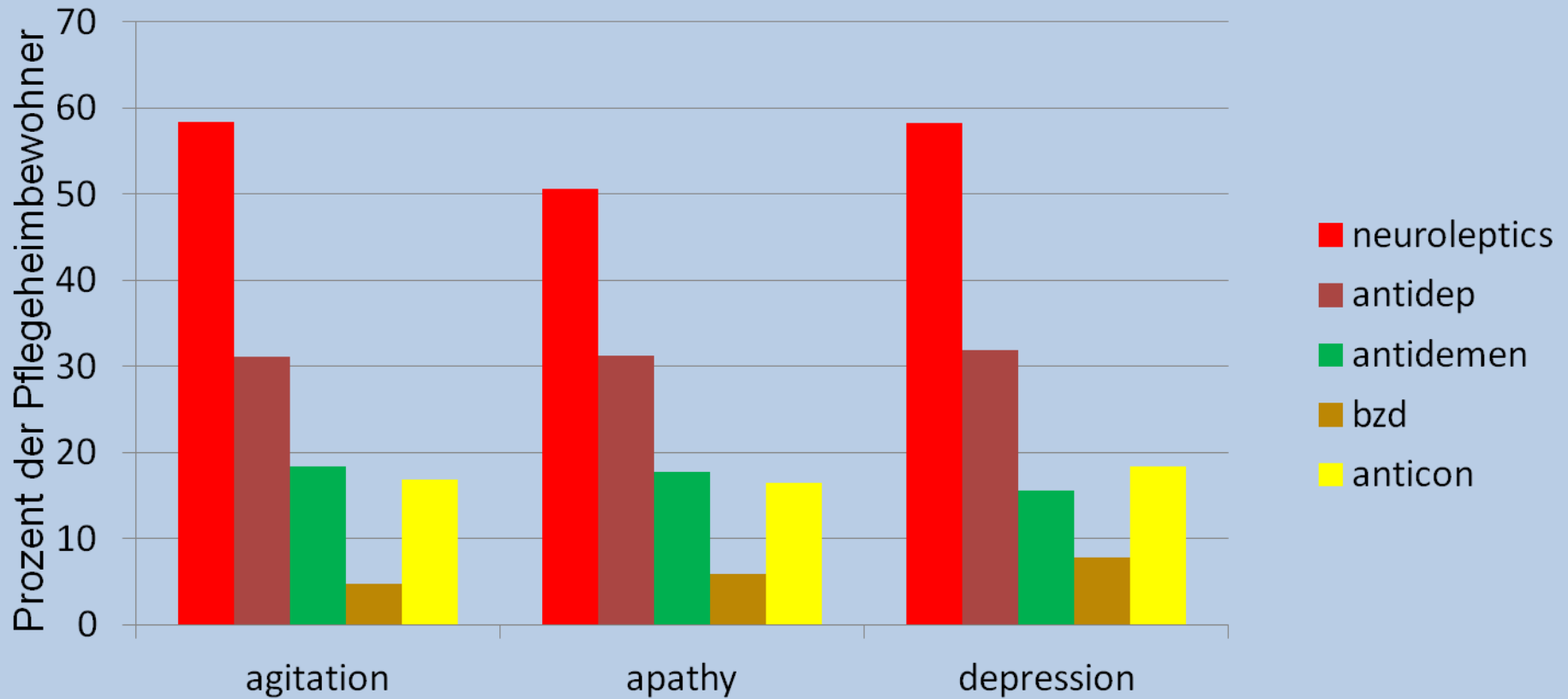
Angehörigentraining
Mittelman et al. (1996)

Aber nur 25% der Demenzpatienten in Deutschland erhalten Antidementiva,
und nur 2% der Angehörigen ein Training

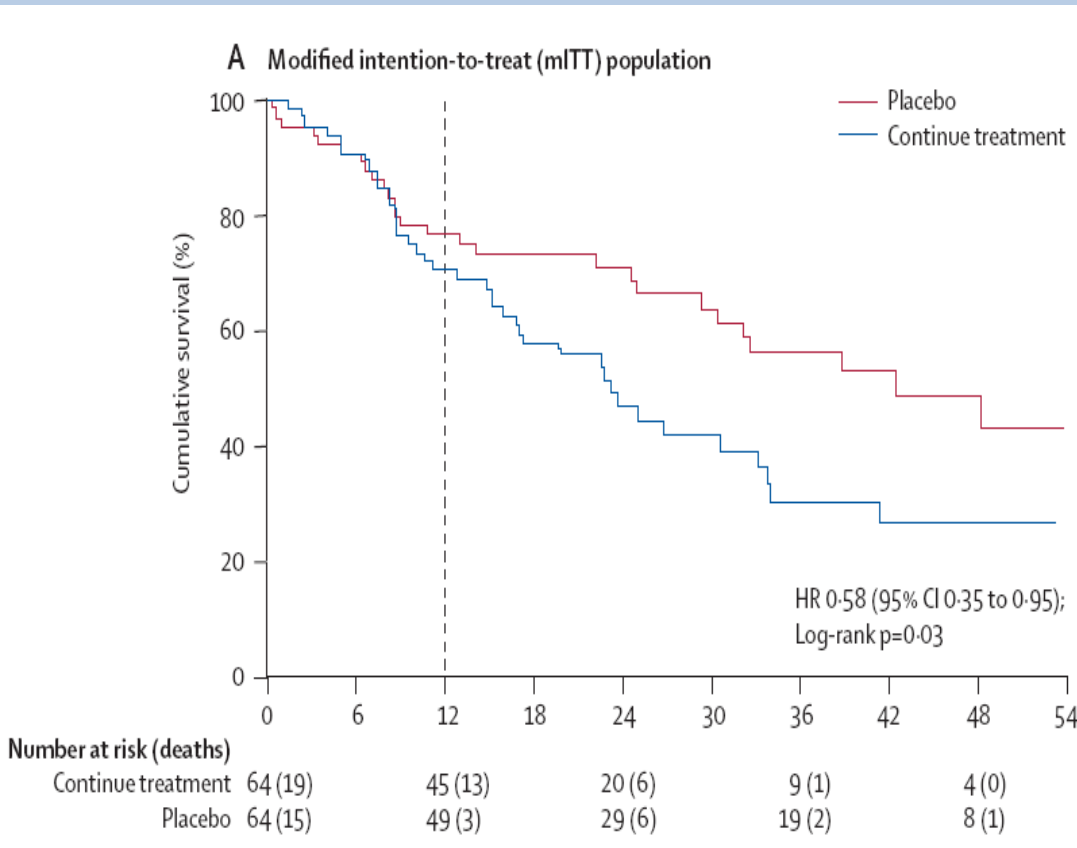
NICHTPHARMAKOLOGISCHE INTERVENTIONEN: VIDEANT



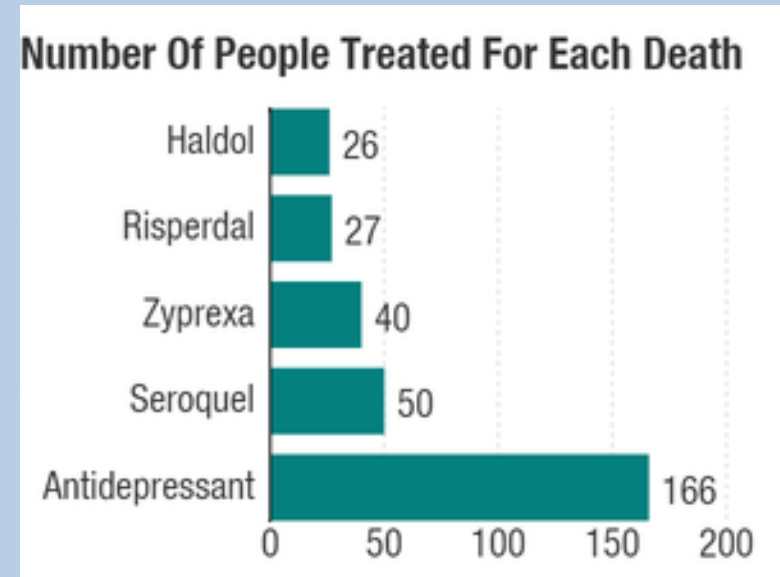
UNDIFFERENZIERTE PHARMAKOTHERAPIE STATT RISIKOABSCHÄTZUNG: VIDEANT



Mortalität unter Neuroleptika



Ballard *et al.* (2009)



Maust *et al.* (2015)

FREIHEITSBESCHRÄNKENDE MASSNAHMEN

Table 2. Prevalence of Physical Restraint Use

	Baseline		3-Month Follow-up		6-Month Follow-up	
	Intervention Group (n = 1917)	Control Group (n = 1784)	Intervention Group (n = 1872)	Control Group (n = 1792)	Intervention Group (n = 1868)	Control Group (n = 1802)
Any physical restraint, No.	604	545	447	546	423 ^a	525 ^a
% (95% CI) ^b	31.5 (26.1-37)	30.6 (25.6-35.5)	23.9 (19.3-28.5)	30.5 (26.6-34.4)	22.6 (18.5-26.8)	29.1 (25.0-33.3)
Restrictive bed rails, No.	559	505	406	490	379	472
% (95% CI) ^b	29.2 (22.7-35.6)	28.3 (23.1-33.5)	21.7 (16.9-26.5)	27.3 (22.7-32)	20.3 (16-24.6)	26.2 (21.7-30.7)
Any waist belt, No.	53	51	42	56	31	54
% (95% CI) ^b	2.8 (1-4.5)	2.9 (1.2-4.5)	2.2 (0.6-3.9)	3.1 (1.7-4.5)	1.7 (0.7-2.6)	3.0 (1.9-4.1)
Waist belt in bed, No.	12	17	13	16	17	19
% (95% CI) ^b	0.6 (0.2-1.1)	0.9 (0.06-1.9)	0.7 (0.3-1.1)	0.9 (0.2-1.6)	0.9 (0.4-1.4)	1.1 (0.07-2)
Waist belt in chair, No.	47	40	35	42	20	41
% (95% CI) ^b	2.5 (0.8-4.1)	2.2 (0.9-3.6)	1.9 (0.4-3.3)	2.3 (1.2-3.5)	1.1 (0.2-1.9)	2.3 (1.3-3.2)
Fixed table, No.	40	29	31	33	8	30
% (95% CI) ^b	2.1 (0.7-3.5)	1.6 (0.6-2.6)	1.7 (0.7-2.6)	1.8 (0.9-2.8)	0.4 (0.1-0.7)	1.7 (0.6-2.8)
Other physical restraint, No.	71	70	49	82	67	78
% (95% CI) ^b	3.7 (1.9-5.5)	3.9 (1.7-6.2)	2.6 (1.5-3.8)	4.6 (2.1-7.1)	3.6 (1.5-5.7)	4.3 (1.6-7.1)

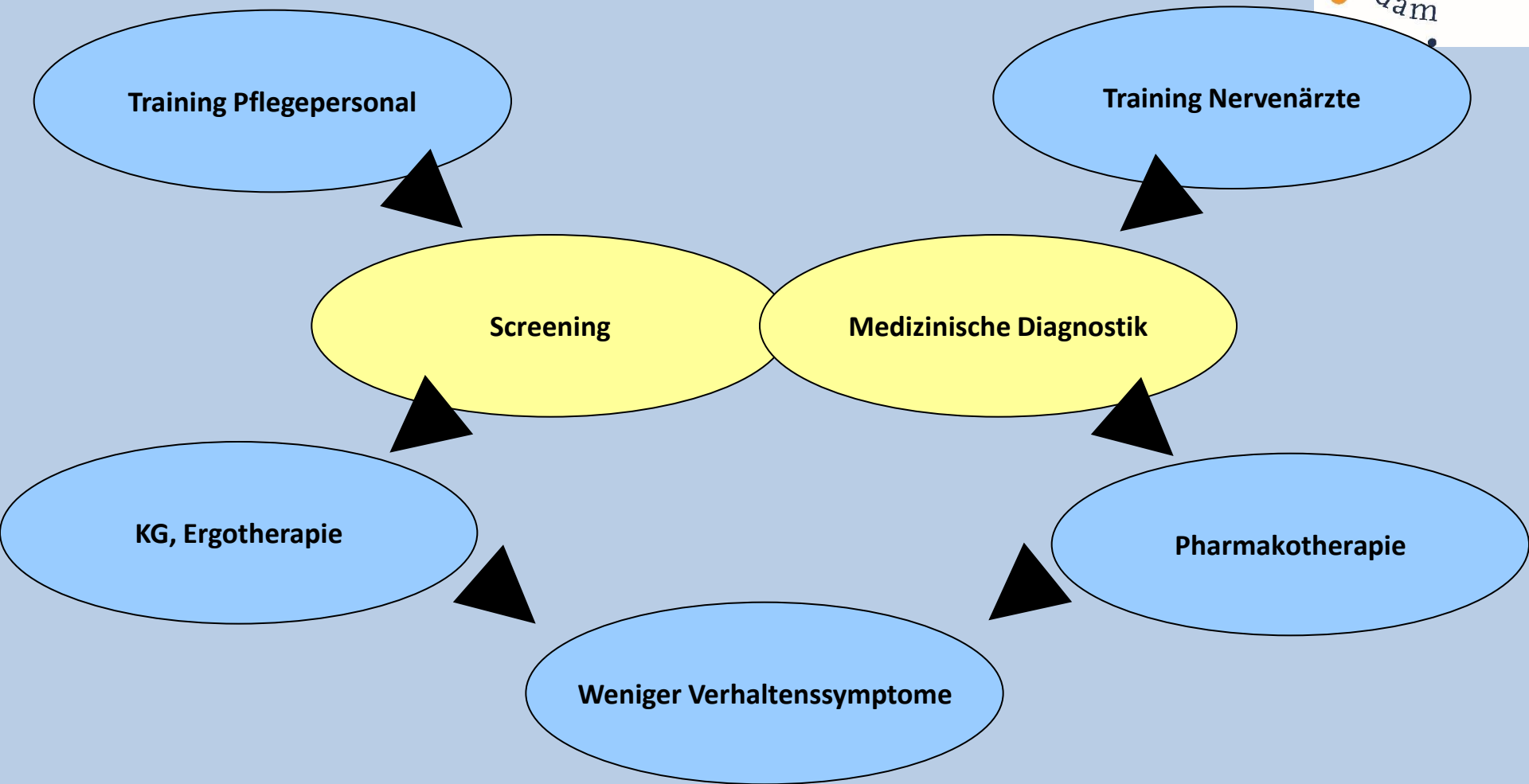
^aPrimary end point.

^bAll percentages and CIs are adjusted for cluster.

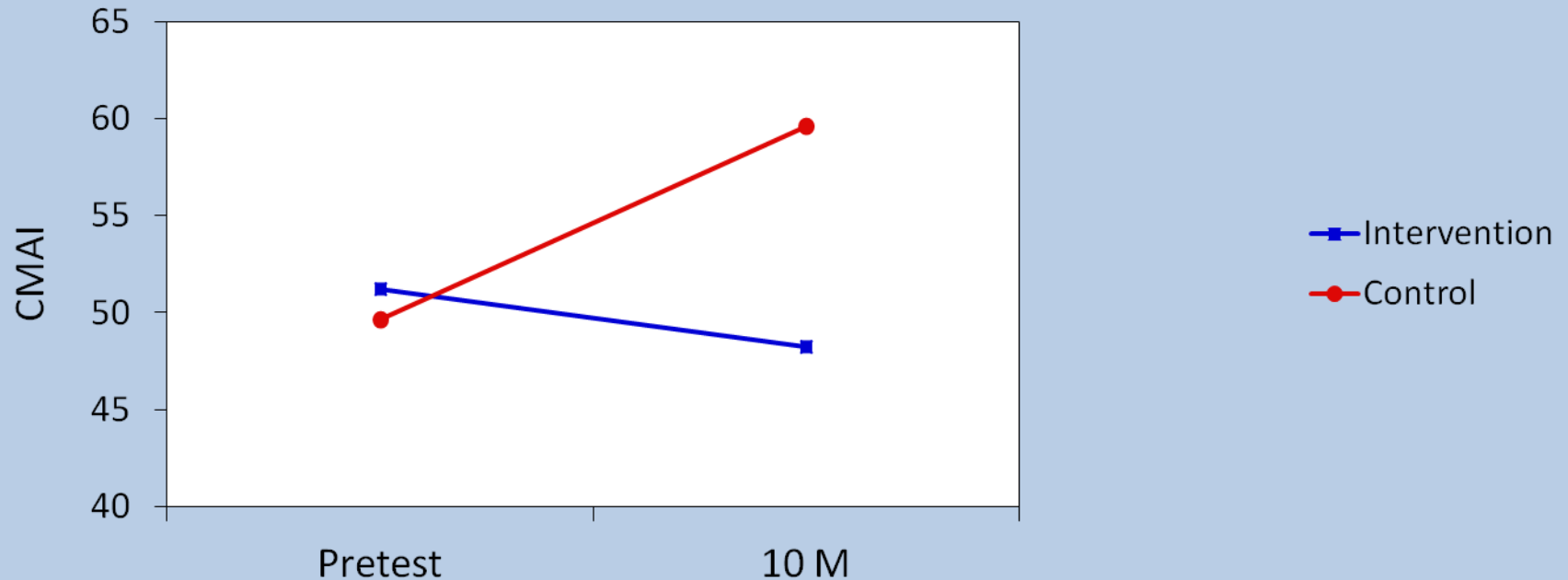
Wie können wir es besser machen?

Leitlinienimplementierungsstudien

LEITLININEN IMPLEMENTATION

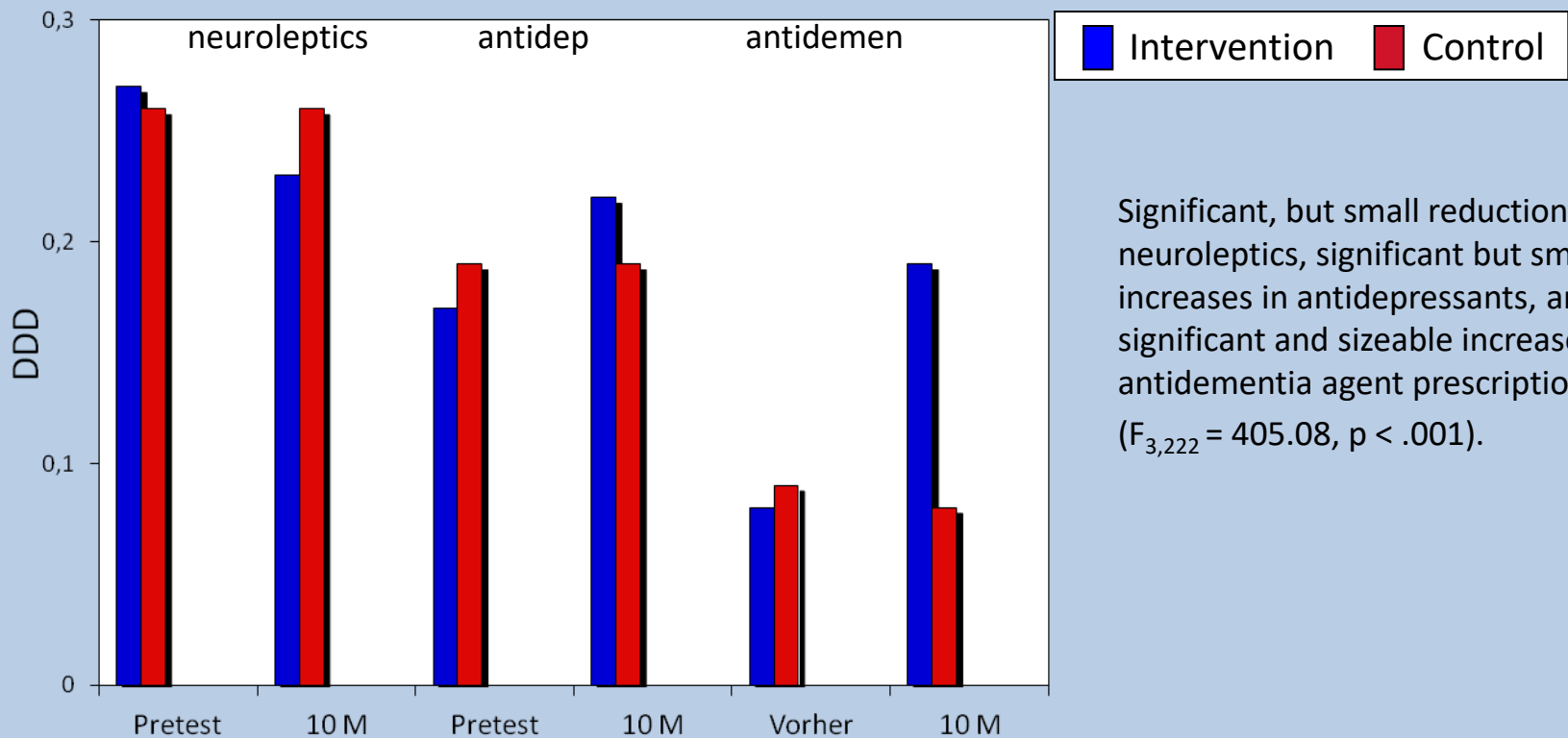


INTERVENTIONSEFFEKT



Cluster randomized regression, controlling for age, gender, and dementia severity:
Adjusted mean difference 6,24; 95% CI, 2,03-14,14; $p = .009$; Cohen's $d = 0.43$.

EFFEKT FÜR PSYCHOPHARMAKAGABE



Significant, but small reduction in neuroleptics, significant but small increases in antidepressants, and significant and sizeable increases in antipsychotic agent prescriptions ($F_{3,222} = 405.08, p < .001$).

FREIHEITSBESCHRÄNKENDE MASSNAHMEN

Table 2. Prevalence of Physical Restraint Use

	Baseline		3-Month Follow-up		6-Month Follow-up	
	Intervention Group (n = 1917)	Control Group (n = 1784)	Intervention Group (n = 1872)	Control Group (n = 1792)	Intervention Group (n = 1868)	Control Group (n = 1802)
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Restrictive bed rails, No.	559	505	406	490	379	472
% (95% CI) ^b	29.2 (22.7-35.6)	28.3 (23.1-33.5)	21.7 (16.9-26.5)	27.3 (22.7-32)	20.3 (16-24.6)	26.2 (21.7-30.7)
Any waist belt, No.	53	51	42	56	31	54
% (95% CI) ^b	2.8 (1-4.5)	2.9 (1.2-4.5)	2.2 (0.6-3.9)	3.1 (1.7-4.5)	1.7 (0.7-2.6)	3.0 (1.9-4.1)
Waist belt in bed, No.	12	17	13	16	17	19
% (95% CI) ^b	0.6 (0.2-1.1)	0.9 (0.06-1.9)	0.7 (0.3-1.1)	0.9 (0.2-1.6)	0.9 (0.4-1.4)	1.1 (0.07-2)
Waist belt in chair, No.	47	40	35	42	20	41
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Fixed table, No.	40	29	31	33	8	30
% (95% CI) ^b	2.1 (0.7-3.5)	1.6 (0.6-2.6)	1.7 (0.7-2.6)	1.8 (0.9-2.8)	0.4 (0.1-0.7)	1.7 (0.6-2.8)
Other physical restraint, No.	71	70	49	82	67	78
% (95% CI) ^b	3.7 (1.9-5.5)	3.9 (1.7-6.2)	2.6 (1.5-3.8)	4.6 (2.1-7.1)	3.6 (1.5-5.7)	4.3 (1.6-7.1)

^aPrimary end point.

^bAll percentages and CIs are adjusted for cluster.

MAKS: Nichtmedikamentöse Intervention



MAKS: Ergebnisse

Table 2 Multiple regression analysis with ADAS-Cog and E-ADL test as dependant variable (PP analysis, n = 61)

Independent variable ^a	ADAS-Cog (12-month follow-up)			E-ADL test (12-month follow-up)		
	Unstandardized β (95% CI)	<i>t</i>	<i>P</i> value	Unstandardized β (95% CI)	<i>t</i>	<i>P</i> value
Score ^b at baseline	0.82 (0.59-1.05)	7.14	< 0.001	0.80 (0.54-1.06)	6.23	< 0.001
Group (control = 0 vs. MAKS = 1)	-7.67 (-13.97-1.37)	-2.44	0.018	3.57 (0.72-6.42)	2.52	0.015
Age	0.13 (-0.47-0.73)	0.43	0.67	0.08 (-0.19-0.35)	0.58	0.57
Gender	1.02 (-6.90-8.94)	0.26	0.80	0.91 (-2.64-4.46)	0.51	0.61
Medication score ^c	-0.38 (-2.14-1.39)	-0.43	0.67	-0.02 (-0.81-0.77)	-0.05	0.96
NOSGER, mood ^d	0.80 (-0.23-1.82)	1.56	0.13	-0.14 (-0.59-0.31)	-0.63	0.53
Participation score ^e	-0.07 (-0.14-0.01)	-2.22	0.03	0.01 (-0.02-0.04)	0.82	0.42
Use of anti-dementia medication ^f	-5.96 (-16.42-4.51)	-1.14	0.26	0.76 (-3.91-5.43)	0.33	0.74

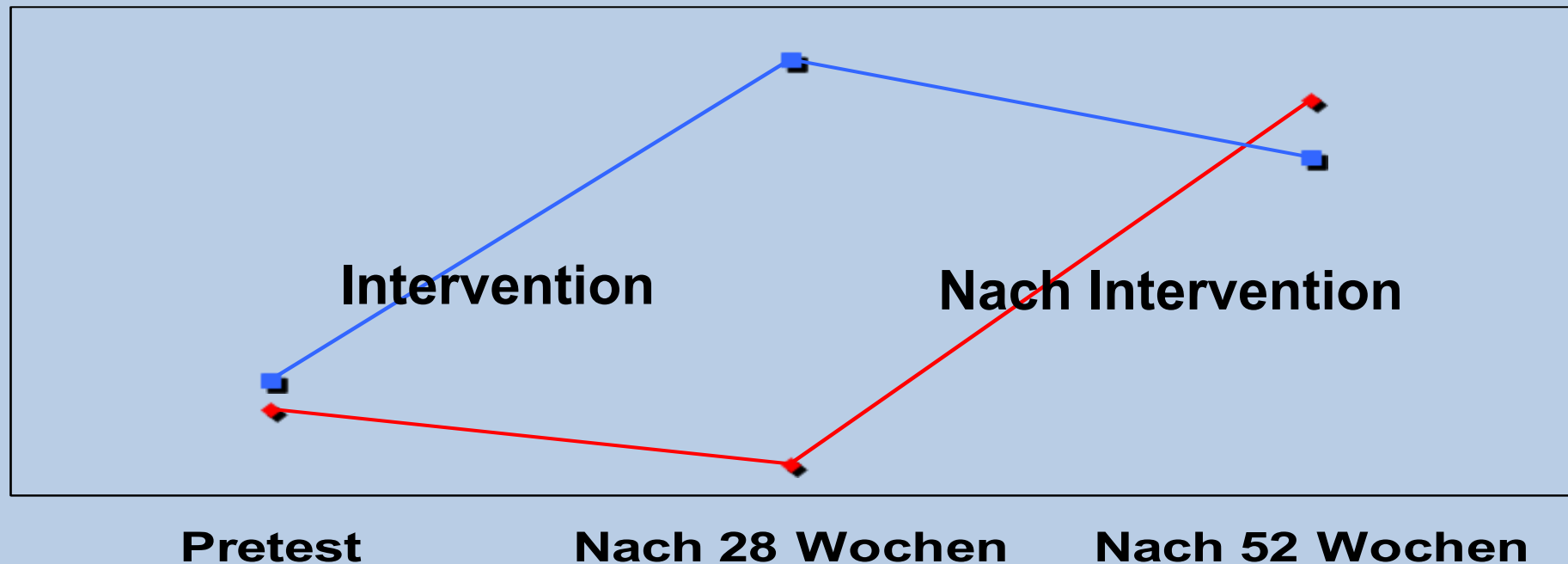
P-values < 0.05 are in bold

Ergotherapie bei Apathie bei schwerer Demenz

Ergotherapie 2x/Woche (N = 48)
vs. Aktivierungsgruppe (N=56)

MMST < 10

—◆— **Ergotherapie** —■— **Kontrollgruppe**



Signifikanter Gruppenunterschied
unter Kontrolle von Alter, Geschlecht,
Demenzschweregrad ($F_{2,69}=12.4$, $p < .05$)

Treusch et al., Eur Psychiatry, 2015

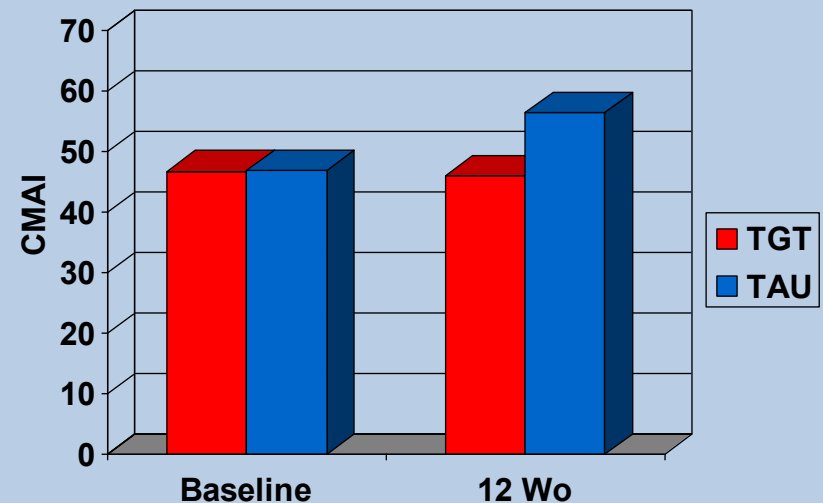
DGPPN Gesundheitsfachberufepreis, 2013

Tiergestützte Therapie bei Demenz

	Gesamt (N=65)	Gematched (N=54)	Intervention (N=27)	Kontrolle (N=27)	Analysis		
	Mean / SD	Mean / SD	Mean / $\pm$ SD	Mean / $\pm$ SD	T	Df	p
Alter (Jahre)	81.82 / $\pm$ 9.22	81.7 / $\pm$ 9.37	81.33 / $\pm$ 10.20	82.07 / $\pm$ 8.65	-0,29	52	0.78
Mini Mental Status Test (MMST)	7.13 / $\pm$ 5.74	7.0 / $\pm$ 5.66	6.37 / $\pm$ 5.41	7.63 / $\pm$ 5.94	-0.82	52	0.42
Cohen-Mansfield Agitationsinventar (CMAI)	47.6 / $\pm$ 16.41	46.83 / $\pm$ 16.41	46.78 / $\pm$ 16.89	46.89 / $\pm$ 16.23	-0.03	52	0.98
Dementia Mood Assessment Scale (DMAS)	21.71 / $\pm$ 15.32	22.02 / $\pm$ 15.33	26.85 / $\pm$ 16.91	17.19 / $\pm$ 12.21	2.42	52	0.02



Intervention	TAU	45 min. TGT 1x/Woche
Kontrollgruppe	TAU	



Majic et al., Am J Geriatr Psychiatry, 2013

ZUSAMMENFASSUNG

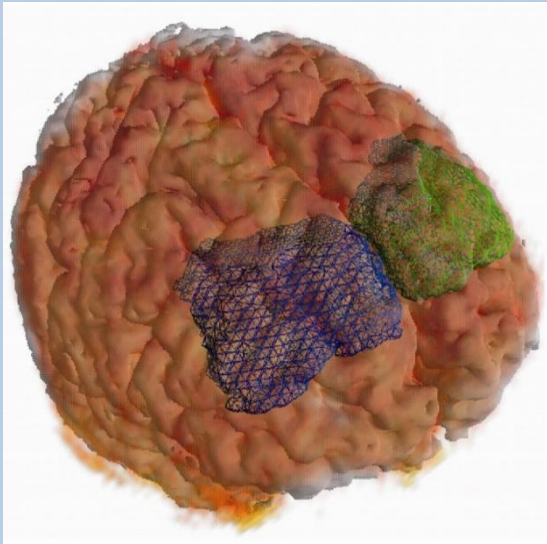
- Über 50% der Pflegeheimbewohner mit Demenz haben keine spezifische Demenzdiagnose, über 50% der Pflegeheimbewohner mit Demenz erhalten Neuroleptika
- Über 30% der Pflegeheimbewohner unterliegen freiheitsbeschränkten Maßnahmen, unter 30% der Pflegeheimbewohner sind in nichtmedikamentösen Therapieverfahren
- Leitliniengerechte Behandlung ist in Pflegeheimen bundesweit nicht etabliert

Aber:

- Starker Zuwachs nichtmedikamentöser Versorgungsstudien und Projekte
- Zunehmende Resonanz in Politik und Gesellschaft
- Hohe Akzeptanz von Verhaltensprävention bei älteren Erwachsenen

Fazit

- Wir bleiben auf dem Weg:



Mechanisms of healthy aging

Innovative Prevention

