Parkinson Revalidatie

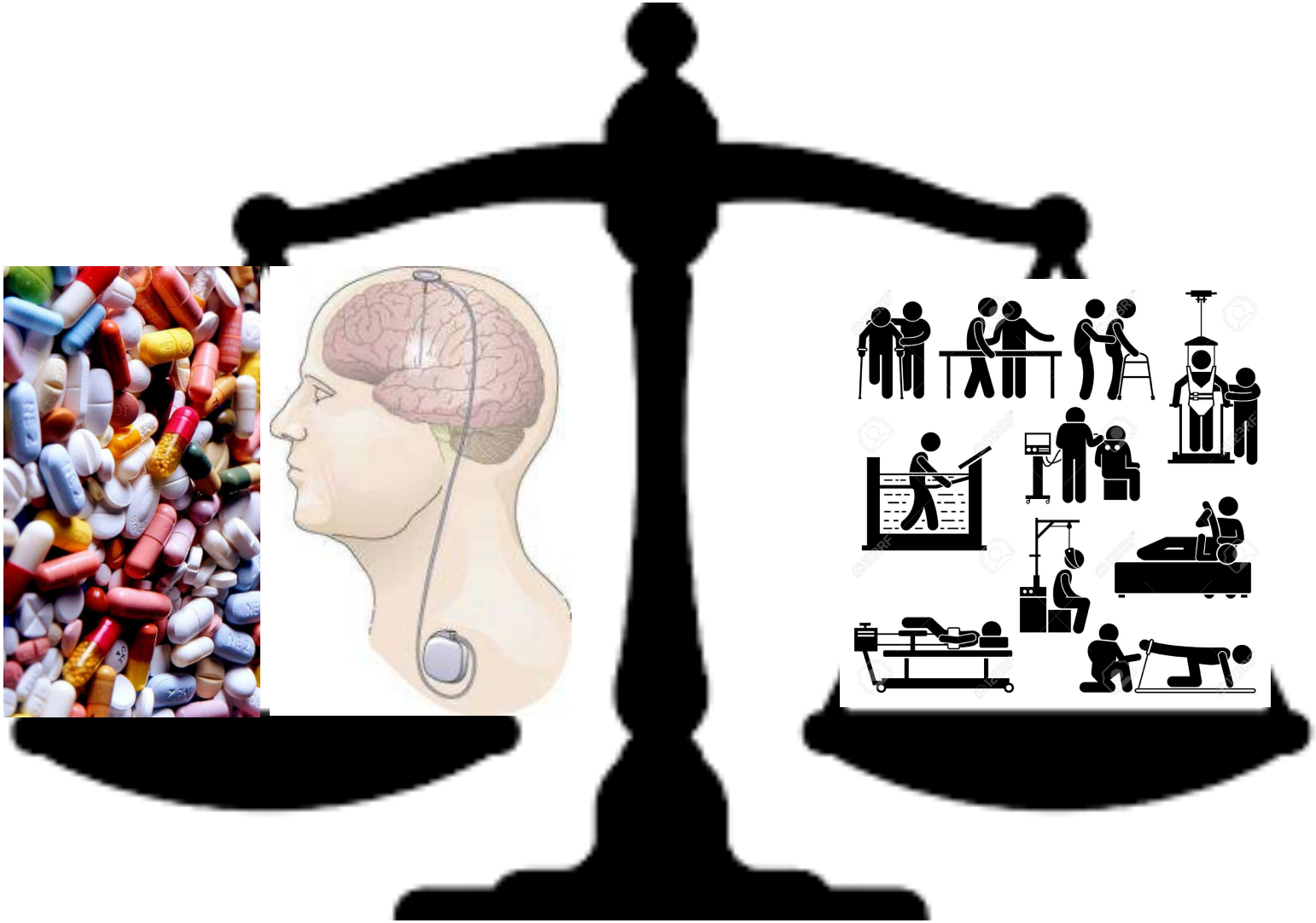
Medische Kring 22-03-2022

Dr. Koen Matthys
Fysische Geneeskunde en Revalidatie-arts
Neurologische Revalidatie

AZ Maria Middelares

GezondheidsZorg met een Ziel

Behandeling Parkinson



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GezondheidsZorg met een Ziel

Overzicht

- Enkele concepten
- Parkinson revalidatie
  - Motorisch
  - Niet-motorisch
- Parkinson revalidatie te Maria Middelares
- Besluit - handvaten

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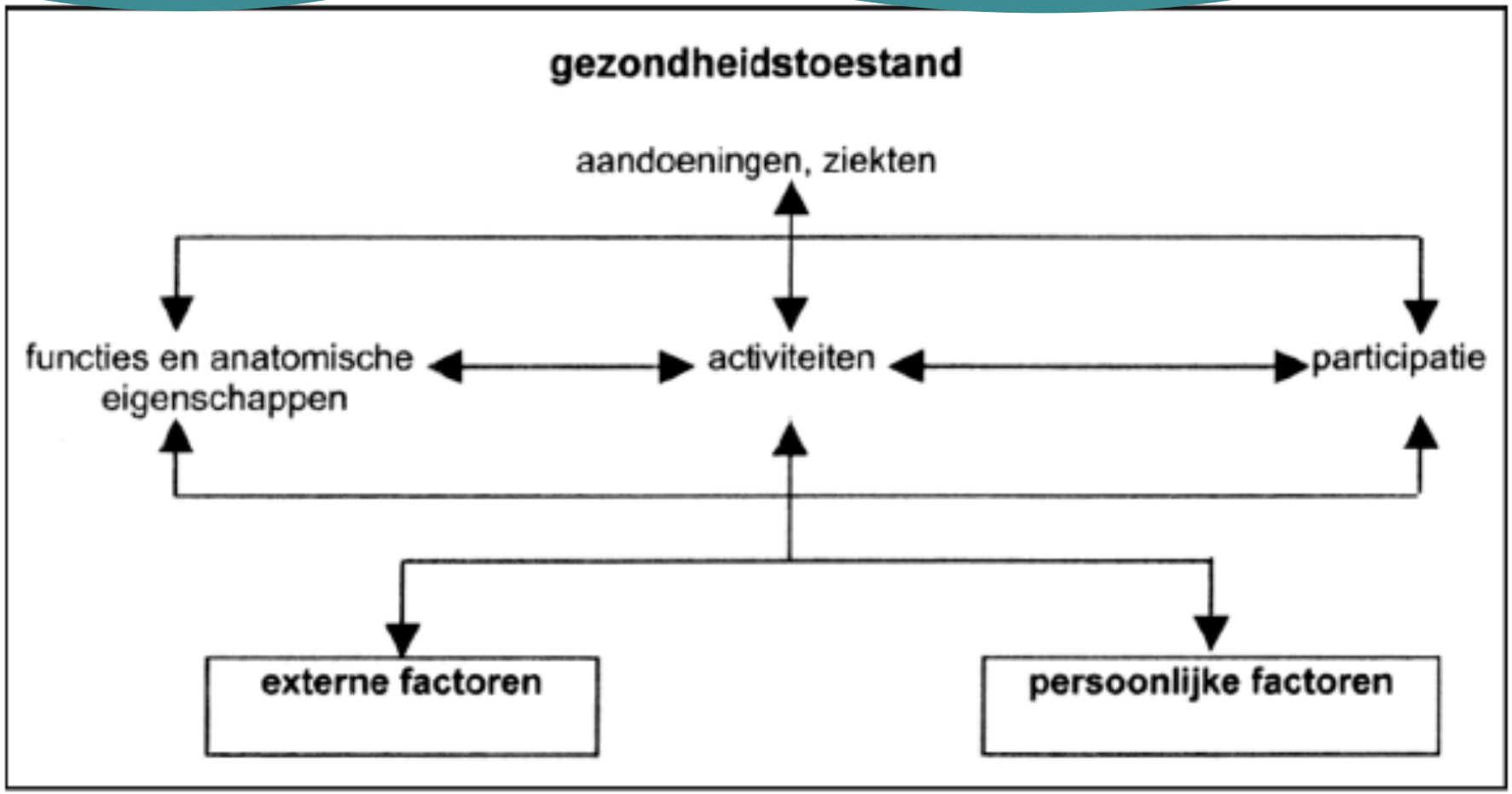
Functietraining

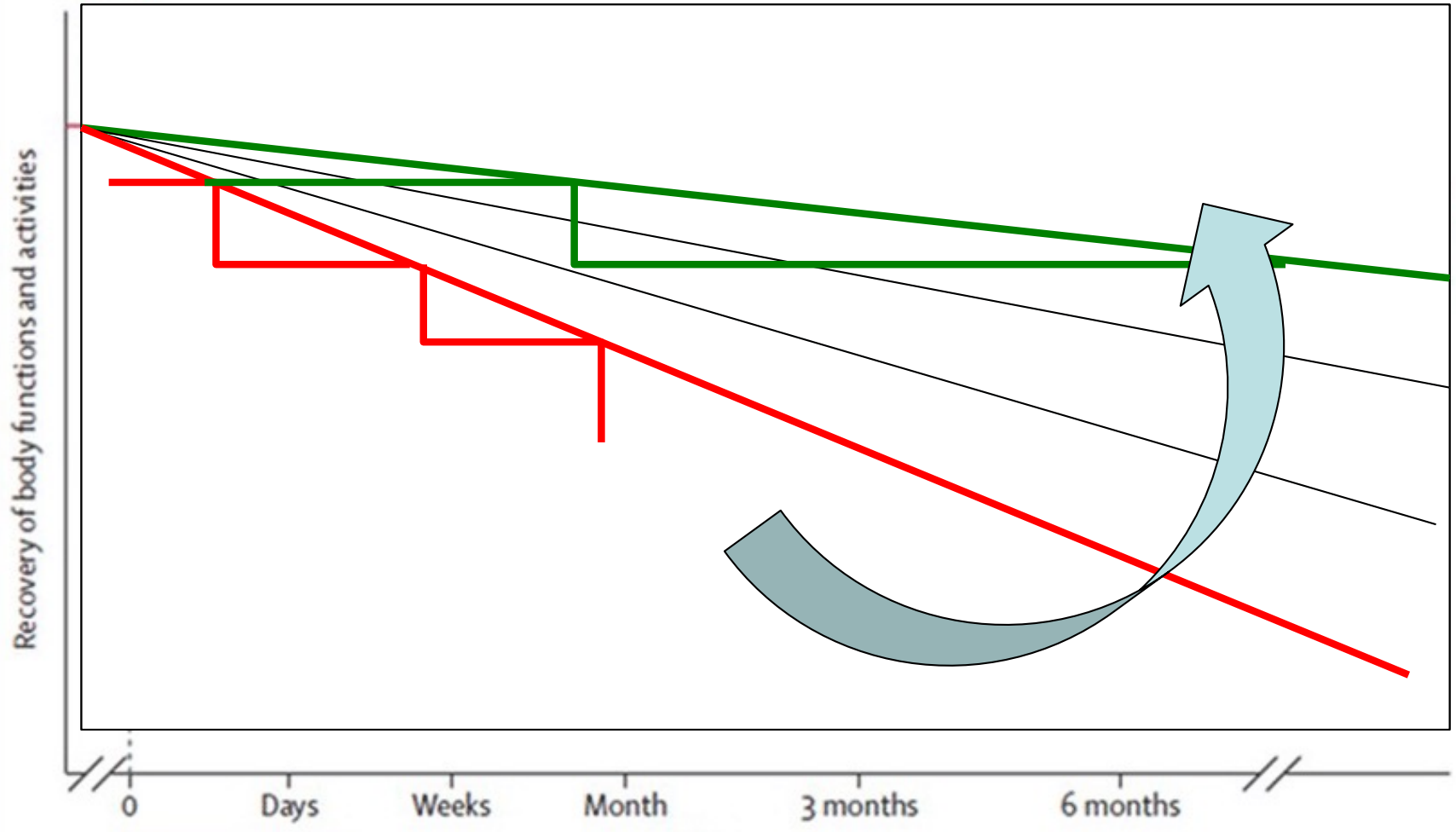
Strategie- en compensatietraining



ICF-model

Gezondheids**Zorg** met een Ziel

Neurologische revalidatie



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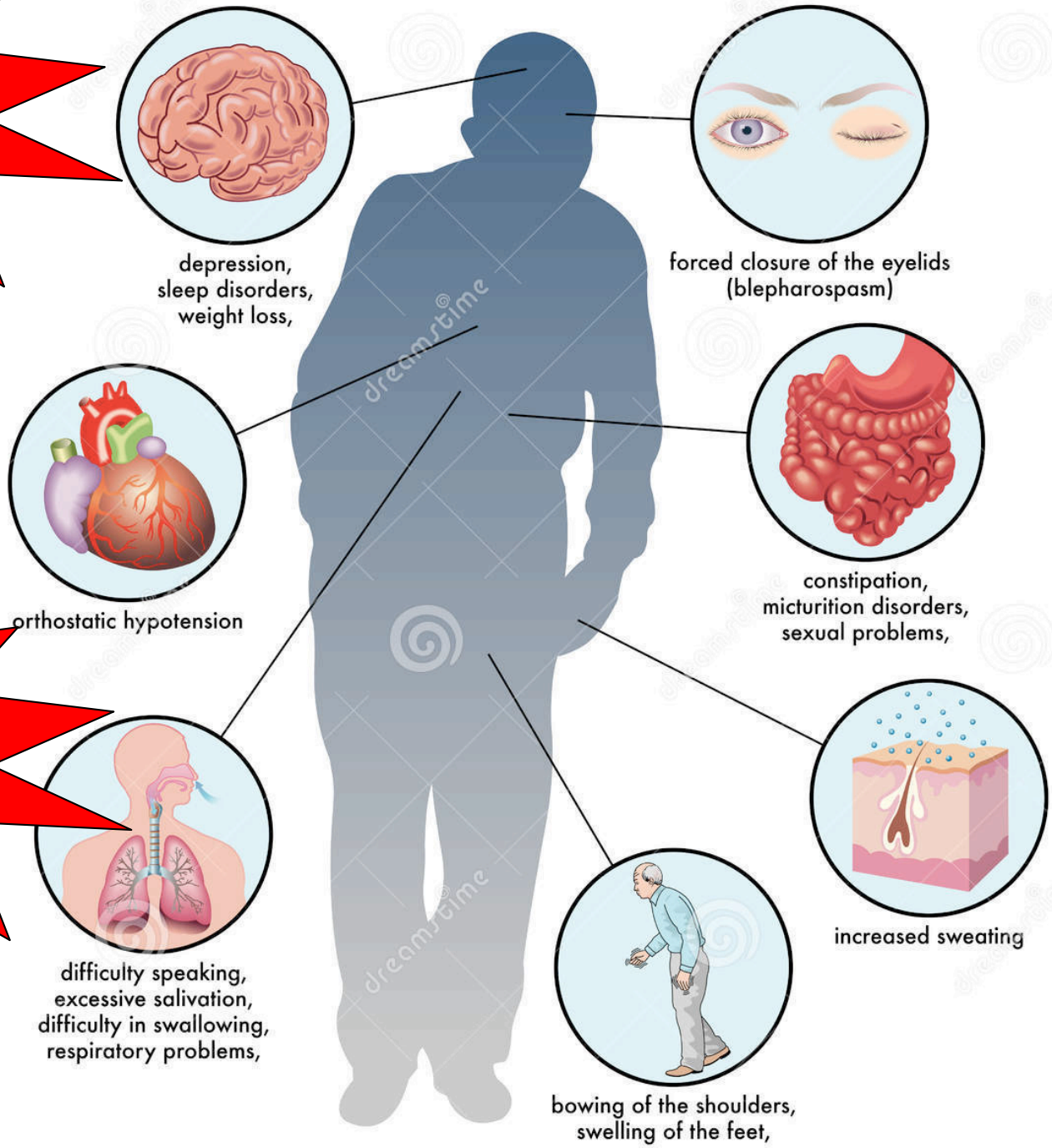
Gezondheidszorg

Motorisch

Niet - Motorisch

Parkinson's disease

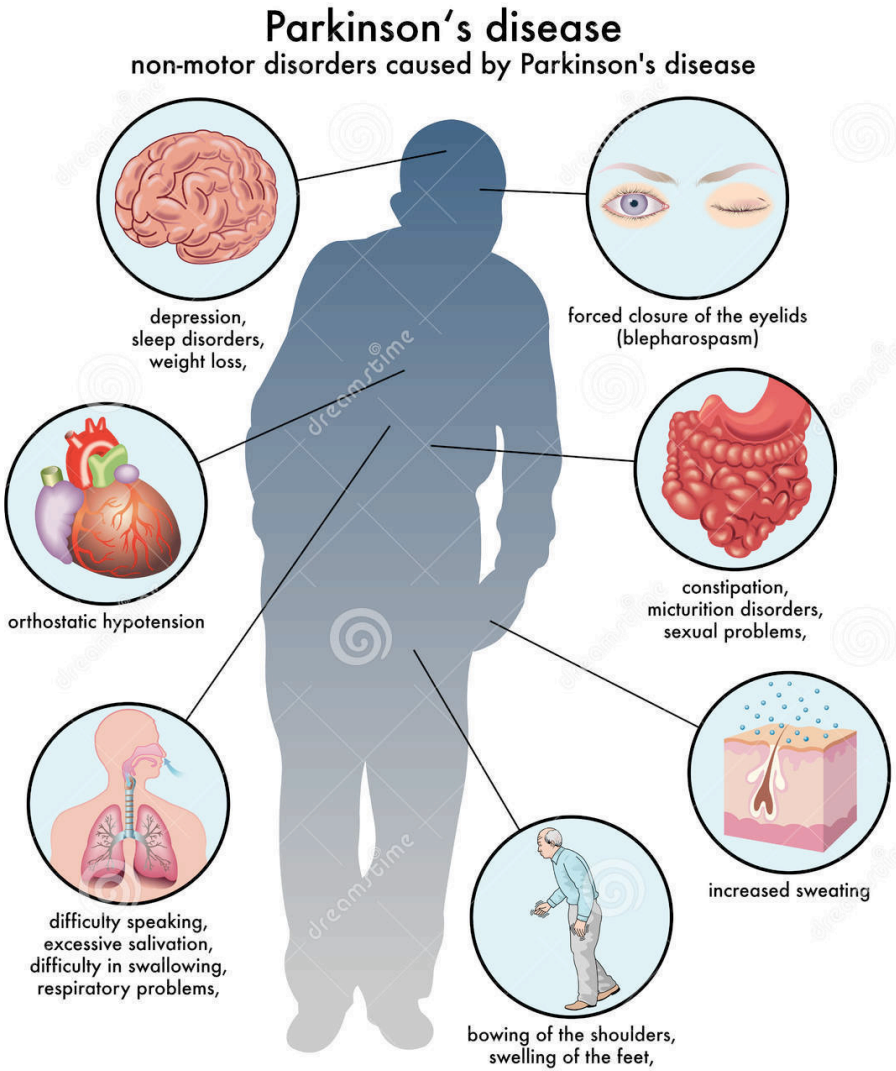
non-motor disorders caused by Parkinson's disease



GezondheidsZorg met een Ziel

Motorisch

- Tremor
- Rigiditeit
- Posturaal
- Evenwichtsproblemen
- Gangmoeilijkheden
  - Freezing of Gait
  - Festinaties
  - ...
- Valrisico!



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Motore Parkinson revalidatie

Motorisch

- Tremor
- Rigiditeit
- Posturaal
- Evenwichtsproblemen
- Gangmoeilijkheden
  - Freezing
  - Festinaties
  - ...
- Valrisico!

- Evidence based?
- Welke therapie?
- Aanbevelingen

Gezondheids**Zorg** met een Ziel

BMJ

BMJ 2012;345:e5004 doi: 10.1136/bmj.e5004 (Published 6 August 2012)

RESEARCH

Physiotherapy intervention in Parkinson's disease: systematic review and meta-analysis

OPEN ACCESS

Claire L Tomlinson *systematic reviewer*[1], Smitaa Patel *statistician*[1], Charmaine Meek *research assistant*[1], Clare P Herd *research associate*[2], Carl E Clarke *professor*[2 3], Rebecca Stowe *senior systematic reviewer*[1], Laila Shah *research administrator*[1], Catherine Sackley *professor of physiotherapy research*[4], Katherine H O Deane *senior lecturer in research*[4], Keith Wheatley *professor*[5], Natalie Ives *senior statistician*[1]

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Conclusions Physiotherapy has short term benefits in Parkinson's disease. A wide range of physiotherapy techniques are currently used to treat Parkinson's disease, with little difference in treatment effects. Large, well designed, randomised controlled trials with improved methodology and reporting are needed to assess the efficacy and cost effectiveness of physiotherapy for treating Parkinson's disease in the longer term.

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In summary, this review provides evidence of the short-term (< three months) benefit of physiotherapy intervention for the treatment of PD. It is important to note that although most of the observed differences between the two treatments were small, the improvements observed for speed, Berg Balance Scale, and UPDRS scores were at levels considered to be of clinical importance. To clarify the long-term (if any) benefit of physiotherapy, additional large, well-designed randomised trials with a follow-up of at least 12 months, alongside a health economics assessment, are needed to assess the impact of this treatment on all aspects of a patient's PD.

AUTHORS' CONCLUSIONS

Implications for practice

Phy
dise

Toml
Whea

Physiotherapy provides short-term benefit in the treatment of PD. Significant benefits with physiotherapy intervention were observed for the following outcomes: two- or six-minute walk test, speed, Freezing of Gait questionnaire, Timed Up & Go test, Functional Reach Test, Berg Balance Scale, and UPDRS total, ADL, and motor scores. Although most of the observed differences between the two treatment arms were small, the improvements seen for speed, Berg Balance Scale, and UPDRS scores occurred at levels that may be considered to be of clinical importance. These benefits should be interpreted with caution, however, because the quality of most of the included trials was not high.

The long-term, if any, benefit of physiotherapy remains unidentified, as does which type of physiotherapy intervention should be delivered. Therefore, although this review has provided evidence that physiotherapy intervention may be of benefit to PD patients, it has also highlighted that further evidence is needed before firm conclusions can be made on the long-term benefit and on which physiotherapy intervention should be used.

Gezondheids**Zorg** met een Ziel

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DOI: 10.1111/ane.13579

Acta Neurologica Scandinavica WILEY

REVIEW ARTICLE

Parkinson's disease and intensive exercise therapy — An updated systematic review and meta-analysis

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[2]The Danish MS Hospitals, Ry and Haslev, Denmark

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Funding information
No funding was received for this review

In 2015, Uhrbrand et al. published the first review on Parkinson´s disease (PD) and exercise entirely based on randomized controlled trials (RCT) applying strict exercise definitions. The present review aimed to update the PD literature by assessing the effects of different intensive exercise modalities: resistance training (RT), endurance training (ET), and other intensive exercise modalities (OITM). An updated systematic literature search identified 33 new RCTs. Qualitative and quantitative analyses were performed. A total of 18 RT, 14 ET, and 1 OITM studies were identified (adding to the 8 RT, 6 ET, and 4 OITM studies identified by Uhrbrand et al. in 2015). RT, ET, and OITM were feasible, safe, and did not worsen PD symptoms. Furthermore, RT, ET, and OITM may positively affect functional outcomes (e.g., balance) and depressive symptoms in PD but inconsistencies across these findings warrant cautious conclusions. Meta-analyses showed that RT had a positive impact on muscle strength (standardized mean difference (SMD) = 0.83 [95% CI;0.54, 1.12]), functional capacity (Timed Up and Go Test (TUG): SMD = −0.62 [−1.01, −0.24]), and quality of life (SMD = −0.41 [−0.72, −0.09]), while ET had a positive impact on cardiorespiratory fitness (SMD = 0.27 [0.07, 0.47]) and functional capacity (TUG: SMD = −0.21 [−0.46, 0.04], 6-Min Walk Test: SMD = 0.89 [0.17, 1.62]), and a potentially positive impact on "on-medication" UPDRS-III (SMD = −0.15 [−0.38, 0.09]) and "off-medication" UPDRS-III (SMD = −0.19 [−0.41, 0.04]). In conclusion, RT, ET, and OITM all represent safe, feasible, and beneficial adjunct rehabilitation strategies in PD, with particularly RT and ET showing solid effects.

KEYWORDS
aerobic training, neurological, parkinsonism, physical therapy, strength training

Motore Parkinson revalidatie

Motorisch

- Tremor
- Rigiditeit
- Posturaal
- Evenwichtsproblemen
- Gangmoeilijkheden
  - Freezing
  - Festinaties
  - ...
- Valrisico!

- Evidence based?
- Welke therapie?
- Aanbevelingen

Gezondheids**Zorg** met een Ziel

Table 7 GRADE-based recommendations for physiotherapy interventions with a positive effect for pwp

Level	Meaning
Strong for	Positive effect and 0 outside confidence interval of effect; Evidence quality moderate/high
Weak for	Positive effect and 0 outside effect confidence interval; Quality of evidence low or moderate/ high but only small effect or very large confidence interval
Weak against	Positive effect, but 0 inside confidence interval of effect

Core area	ICF level	Outcome	Conventional physiotherapy	Treadmill	Massage	Cueing	Strategies for CMS	Dance: tango	Tai Chi
Balance	Balance capacity	No of falls							
		BBS							
		FR							
		DGI							
		Mini-BESTest							
	Balance performance	FES / ABC							
Balance & Gait	Capacity of functional mobility	Timed turn							
		Timed stairs							
Gait	Walking capacity	Speed							
		Stride length							
		Step length							
		Cadence							
		Distance							
	Walking performance	FOG-Q							
Gait, Balance & Transfers	Capacity of functional mobility	TUG							
		PAS							
Transfers	Capacity of functional mobility	Sit-to-stand							
		PAS – Chair							
Physical Capacity	Muscle functions	Strength							
	Walking capacity	Walk distance							
Other	Movement functions	UPDRS III							
		P&G Score*							
	Quality of life	PDQ-39							
		EQ-5D							
		PDQL	**						
	Patient-based treatment effect	CGI							
		PSI-PD							

European Physiotherapy Guideline for Parkinson's Disease

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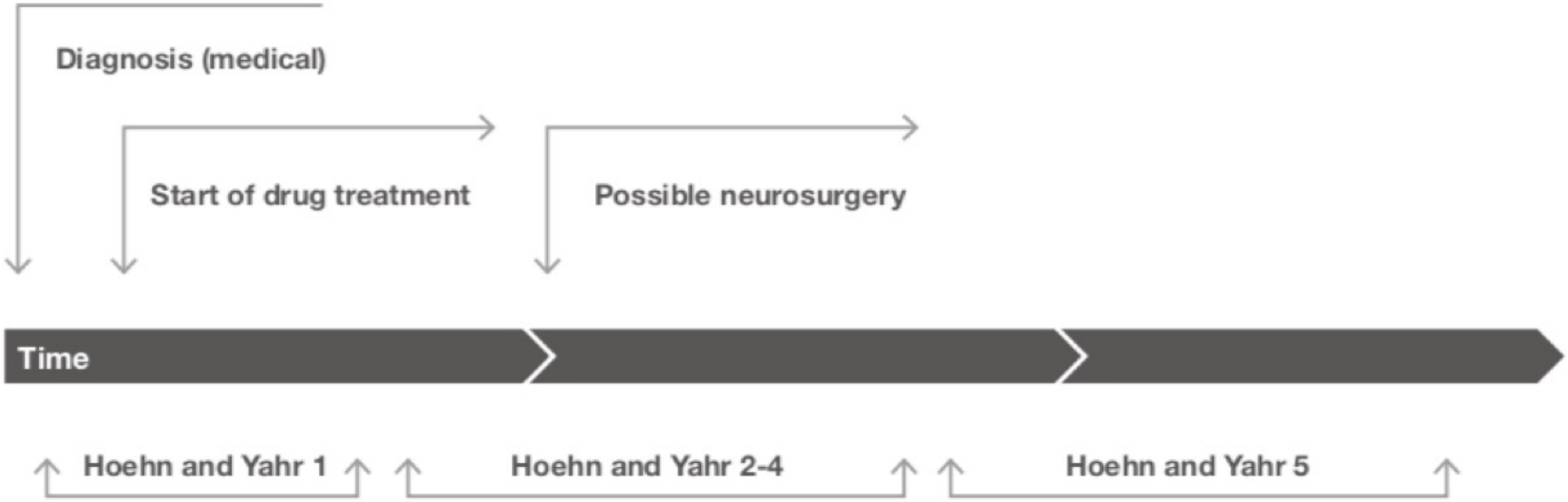
GezondheidsZorg met een Ziel

Welke therapie ?



Physiotherapy goals

- Self-management support
- Prevent inactivity
- Prevent fear to move or fall
- Improve physical capacity
- Reduce pain
- Delay onset activity limitations (motor learning, up to HY3)

Additional goals

- Maintain or improve activities, especially:

- Transfers
- Balance
- Manual activities
- Gait

Additional goals

- Maintain vital functions
- Prevent pressure sores
- Prevent contractures
- Support carers/nurses

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Motore Parkinson revalidatie

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Gezondheids**Zorg** met een Ziel

Aanbevelingen motore revalidatie

World Health Organization

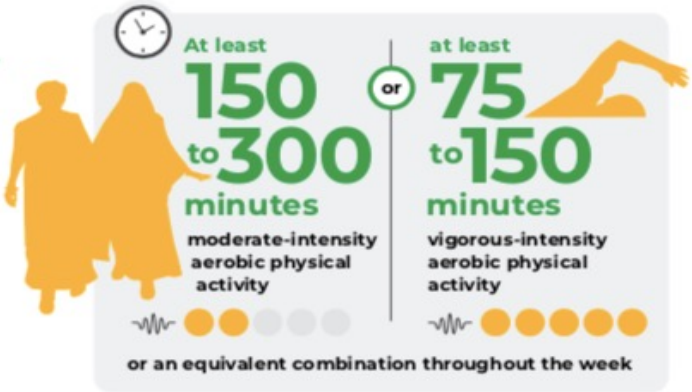
It is recommended that:

› All older adults should undertake regular physical activity.

Strong recommendation, moderate certainty evidence

› Older adults should do at least 150–300 minutes of moderate-intensity aerobic physical activity; or at least 75–150 minutes of vigorous-intensity aerobic physical activity; or an equivalent combination of moderate- and vigorous-intensity activity throughout the week, for substantial health benefits.

Strong recommendation, moderate certainty evidence



› Older adults should also do muscle-strengthening activities at moderate or greater intensity that involve all major muscle groups on 2 or more days a week, as these provide additional health benefits.

Strong recommendation, moderate certainty evidence

› As part of their weekly physical activity, older adults should do varied multicomponent physical activity that emphasizes functional balance and strength training at moderate or greater intensity, on 3 or more days a week, to enhance functional capacity and to prevent falls.

Strong recommendation, moderate certainty evidence

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Aanbevelingen motore revalidatie

- Basis oefenprogramma
  - ACTIEVE OEFENTHERAPIE: Aerobe conditietraining, tonificaties, evenwicht, (mobilisaties)
- Parkinson-specifiek oefenprogramma
  - Oa. bij freezing, festinaties,...
  - Cueing, cognitieve bewegingsstrategieën, dubbeltaken,...
  - Grote amplitudo's
  - Tijdig beginnen (CAVE: leervermogen!)
- Kinesitherapie? (E-pathologie)
  - Ifv patiënt en klachten
  - http://www.parkinsonzorgwijzervlaanderen.be

Valrisico bij PD

- 45-68% (35-90%) minstens 1 x /jaar
  - 2/3 valt recurrent
  - 65% van vallers => letsel (1 op 3 #)

- Valpreventie!
  - Aanpassingen/hulpmiddelen
    - Ergotherapie aan huis
  - Orthostatisme (bloeddrukval)
  - Osteoporose: botdensitometrie

Gezondheids**Zorg** met een Ziel

Name:
Medical record number:
Date:

Assessing the probability of falling in people with Parkinson's disease	**Score**
Step 1 Ask your patient: Have you fallen in the past 12 months? Yes = 6 No = 0	
Step 2 Ask your patient: Have you experienced freezing of gait in the past month? Yes = 3 No = 0	
Step 3 Time your patient walking over the middle 4 m of a 6 m walkway at a comfortable pace: >3.6 s to walk 4 m = 'yes' Yes = 2 No = 0	
Total score	

Total score	0	2–6	8–11
Probability of falling in next 6 months	Low (17%)	Moderate (51%)	High (85%)
Tick appropriate box	☐	☐	☐

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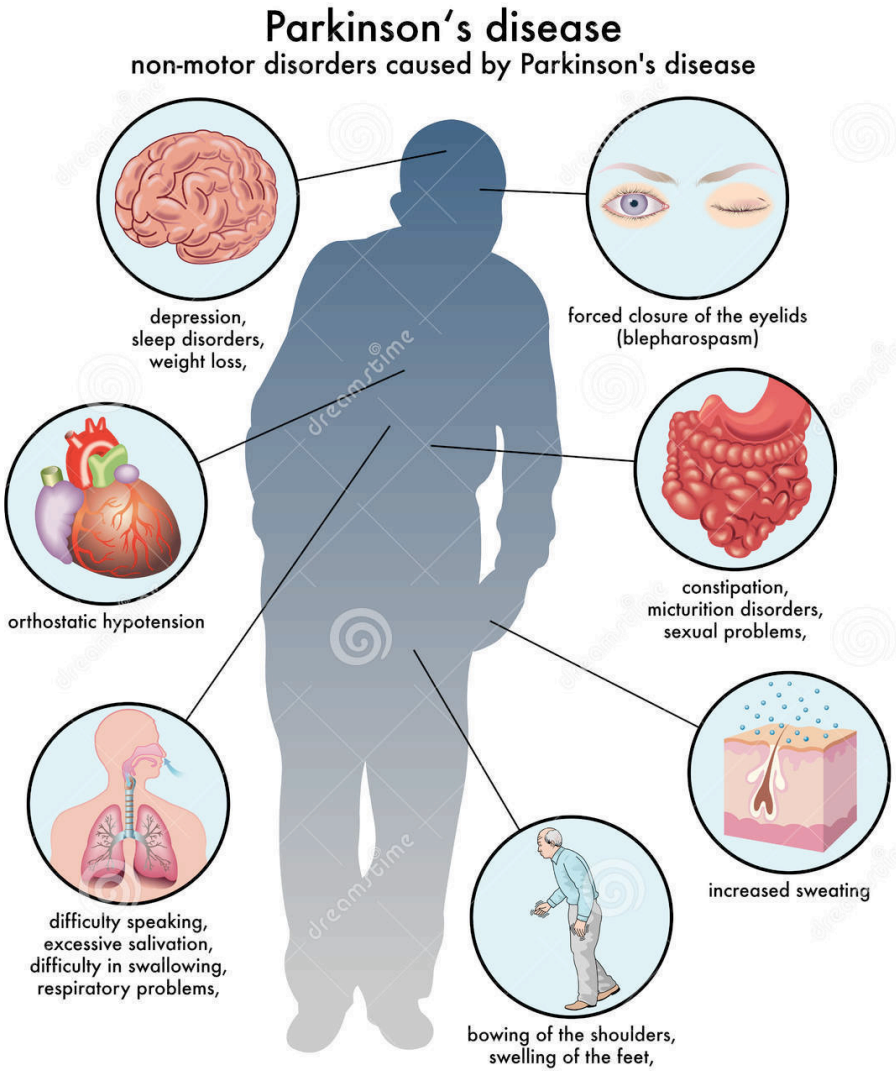
Gezondheids**Zorg** met een Ziel

Niet - Motorisch

- Dysarthrie (hypokinetisch)
- Gastro-intestinaal
  - Slikken/speeksel
  - Constipatie
  - …
- Mictiestoornissen
- Orthostatische hypotensie
- Cognitief
- Emotioneel/psychologisch
- …



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Dysfagie

- Logopedie 1
  - Slikmoeilijkheden (speekselverlies)
    - Functietraining
      - Krachttraining slikspieren, Sliktraining (techniek)
    - Strategie/compensatietraining
      - Houdingsadviezen, aanpassen consistentie
    - VOLDOENDE voedsel- en vochtinname!!
      - Samenwerking met zo nodig diëtist
    - Pletten medicatie?
      - https://vza.be/bibliotheek-pletmedicatie/pletfiches

Dysarthrie en afasie

- Logopedie 2
  - Spraakmoeilijkheden (hypokinetische dysarthrie)
    - Stiller, intonatieverlies, verminderde articulatie, verminderde mondmotoriek, gestoorde ademhaling
  - Gouden standaard: PLVT
    - LAAG en LUID
    - Voldoende intensief
    - Integreren in dagdagelijkse communicatie
  - Taalproblemen
    - Woordproductie en –vinding, grammaticale fouten
  - Communicatie (coaching patiënt en omgeving)
    - Tijd en ruimte geven aan patiënten
      Vertraagde informatieverwerking
    - Non-verbale communicatie...

Neurocognitieve dysfuncties

- Cognitieve moeilijkheden: brede waaier
  - Vertraagde informatieverwerking
  - Aandacht, executieve functies (probleemoplossend vermogen), werkgeheugen, visueel-ruimtelijk
  - Impact op leerbaarheid binnen revalidatie
- Screening (MOCA), NPO
- Impact op
  - Dagelijks functioneren
  - Rijgeschiktheid!
    - CARA
- Voldoende bewegen en neurocognitieve training (+ psycho-educatie)

Gezondheids**Zorg** met een Ziel

NeuroRehabilitation 48 (2021) 385–387
DOI:10.3233/NRE-218001
IOS Press

Cochrane Corner

Cochrane Rehabilitation

rehabilitation.cochrane.org

Cognitive training interventions for dementia and mild cognitive impairment in Parkinson's disease - A cochrane review summary with commentary

Tobias Loetscher
Cognitive Ageing and Impairment Neurosciences Laboratory, School of Psychology, Social Work and Social Policy, University of South Australia, Adelaide, Australia
E-mail: tobias.loetscher@unisa.edu.au.

Abstract.
BACKGROUND: The majority of people living with Parkinson's disease will develop impairments in cognition. These impairments are associated with a reduced quality of life.
OBJECTIVE: The Cochrane Review aimed to investigate whether cognitive training improves cognition in people with Parkinson's disease and mild cognitive impairments or dementia.
METHODS: A Cochrane Review by Orgeta et al. was summarized with comments.
RESULTS: The review included seven studies with a total of 225 participants. There was no evidence for improvements in global cognition when cognitive training was compared to control conditions. Observed improvements in attention and verbal memory measures after cognitive training could not be confirmed in a subsequent sensitivity analysis. There was no evidence for benefits in other cognitive domains or quality of life measures. The certainty of the evidence was low for all comparisons.
CONCLUSIONS: The effectiveness of cognitive training for people with Parkinson's disease and cognitive impairments remains inconclusive. There is a pressing need for adequately powered trials with higher methodological quality.

Gezondheids**Zorg** met een Ziel

Neurological Sciences
https://doi.org/10.1007/s10072-021-05772-4

REVIEW ARTICLE

Effects of cognitive rehabilitation in Parkinson disease: a meta-analysis

Giustiniani Andreina[1] · Maistrello Lorenza[1] · Danesin Laura[1] · Rigon Elena[1] · Burgio Francesca[1]

Received: 18 October 2021 / Accepted: 19 November 2021
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Abstract

Background and objectives Cognitive symptoms are common in Parkinson's disease (PD) and affect patients' quality of life. Pharmacological interventions often do not improve such deficits that might benefit of cognitive rehabilitation. However, previous meta-analysis on this topic reported inconsistent results. Clarifying the efficacy of cognitive rehabilitation would be pivotal to optimize treatment and reduce care's costs. This meta-analysis aims at determining whether current literature lays in favor of the effectiveness of cognitive rehabilitation in PD and at understanding whether its effect might change depending on the trained cognitive domain.

Methods We searched online databases for studies concerning cognitive rehabilitation in PD. Fourteen studies encompassing 767 participants were included. Analyses were conducted for each cognitive domain separately, examining several neuropsychological measures for each function.

Results We found that rehabilitation improves global cognition, executive functions, and long- and short-term memory.

Conclusion The current body of research indicates that cognitive rehabilitation improves specific cognitive deficits in PD and that it should be tailored on patients' specific impairments. These interventions should be employed considering that not all the cognitive domains might benefit of a cognitive training. Finally, the high heterogeneity among studies suggests the need for more controlled clinical trials.

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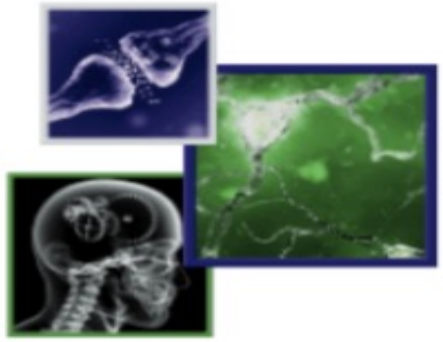
Gezondheids**Zorg** met een Ziel

Future Medicine Ltd
Neurodegenerative Disease Management
Volume 10, Issue 1, February 2020, Pages 41-55
https://doi.org/10.2217/nmt-2019-0025

Open Access

Perspective

Neurodegenerative Disease Management



Motor-cognitive approach and aerobic training: a synergism for rehabilitative intervention in Parkinson's disease

Davide Ferrazzoli [1,*,‡], Paola Ortelli [1,‡], Alberto Cucca [2,3], Leila Bakdounes [2], Margherita Canesi [1,§] & Daniele Volpe [2]

AZ Maria Middelares

Neuropsychologische stoornissen

- Gedrag- en stemmingswisselingen
  - Stress en coping rond diagnose
  - Apathie, **depressie**, angst
  - Hallucinaties en wanen
  - Impulscontrole
  - Libido en seksualiteit
  - Sociaal isolement
- Vermoeidheidsklachten
- Slaapmoeilijkheden
  - Inslapen, doorslapen

- => Medicatie & Psychologische begeleiding

Gezondheids**Zorg** met een Ziel

Neurorevalidatie

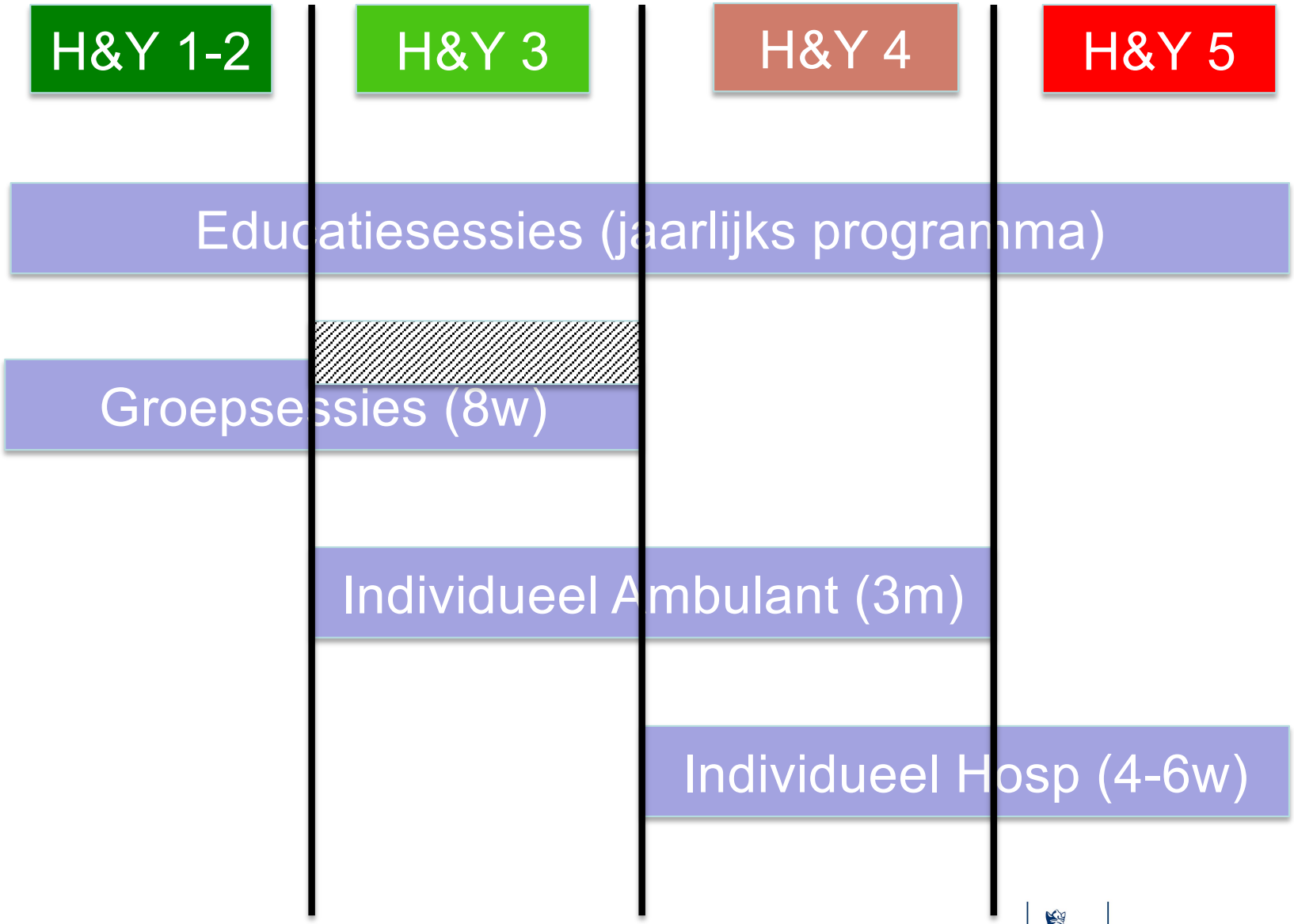
MARIA MIDDELARES

PARKINSON REVALIDATIE MARIA MIDDELARES?

AZ Maria Middelares

GezondheidsZorg met een Ziel

Parkinson Revalidatie Maria Middelares



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Gezondheids**Zorg** met een Ziel

Educatiesessies

LEVEN MET PARKINSON
PROGRAMMA 2021 - 2022

29.10.2021 **Ziekte van Parkinson: medisch belicht**
Dr. Olivier Stevens, *neuroloog*
Dr. Koen Matthys, *revalidatiearts*

21.01.2022 **Cognitie en communicatie**
Riet De Paermentier, *logopedist*

11.02.2022 **Bewegen en verpleegkundige tips**
Silke Cocquyt, *kinesitherapeut*
Lore Sucaet of Ria Flieberg, *verpleegkundige neurologie*

04.03.2022 **Voeding en slikproblemen**
Riet De Paermentier, *logopedist*
Josephine Taquet, *diëtist*

22.04.2022 **Psychologische en seksuele verandering**
Ulrike De Taeye, *psycholoog*

20.05.2022 **(Dagelijks) leven: infomoment over hulpmiddelen, diensten, tegemoetkomingen, tips & tricks**
Dévine Sys, *ergotherapeut*
Maaike Verplancke, *sociaal werker*

TIJDSTIP
van 14 tot 16 uur
onthaal vanaf 13.30 uur

INSCHRIJVEN
www.mariamiddelares.be
(zoek: educatiesessies Parkinson)

VRAGEN
communicatie@azmmsj.be
09 246 28 60

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Multidisciplinaire groepslessen

Groepstherapie

Doelstelling		**Parkinsoneducatie, + actieve levenstijl promoten => persoonlijk oefenprogramma opstellen ifv individuele behoefte**
	Doelstelling	
Wie?	wanneer	H&Y 1,2,(3)
Aantal?	Wie?	max 6/groep
Wat?	Aantal?	8 weken programma, 1x/w
Wanneer?	Wat?	Vanaf een groep van 4 pt kunnen gemaakt worden (start)
	voorwaarde opstarten	

	week 0	Week 1	week 2	week 3	Week 4	Week 5	Week	7
		teamoverleg: op woe						
60'	Ergo/kine	kine	kine					
	ind. doelst	45' M	45' T					
	60'	15' AH	15' AH					
30' Pauze	enotencontact (koffie en ontspanni							
60'	introductie	logo	erg	logo	e		eet	
	nursing(30	ADL	60' C/C	60' HM		60'	0' T	60T

ACTIEVE LEVENSSTIJL

Kine? Sportclub? Andere?

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Individueel ambulant

- Neurologische revalidatie Maria Middelares
  - Bij toenemende functionele moeilijkheden
  - 3tal maanden, 2-3x per week
    - 2-3 uur per sessie
  - Intake: multidisciplinair bilan
  - Individueel programma
    - Multidisciplinair: kinesitherapie, ergotherapie, logopedie, psychologie, sociale dienst, dieet,...
      - Bewegingstherapie: verbeteren motoriek,...
      - Spraak en cognitie? Slikken?
      - Hulpmiddelen?
      - Hulp aan huis? Aanpassingen woning?
      - ...

GezondheidsZorg met een Ziel

Individueel hospitalisatie

- Revalidatieziekenhuis Lemberge
  - In opname, bij hogere zorgnood
  - Intensieve (dagelijks) oefentherapie
    - Multidisciplinair
    - Nauwe samenwerking dienst Geriatrie
  - 4-6 weken...

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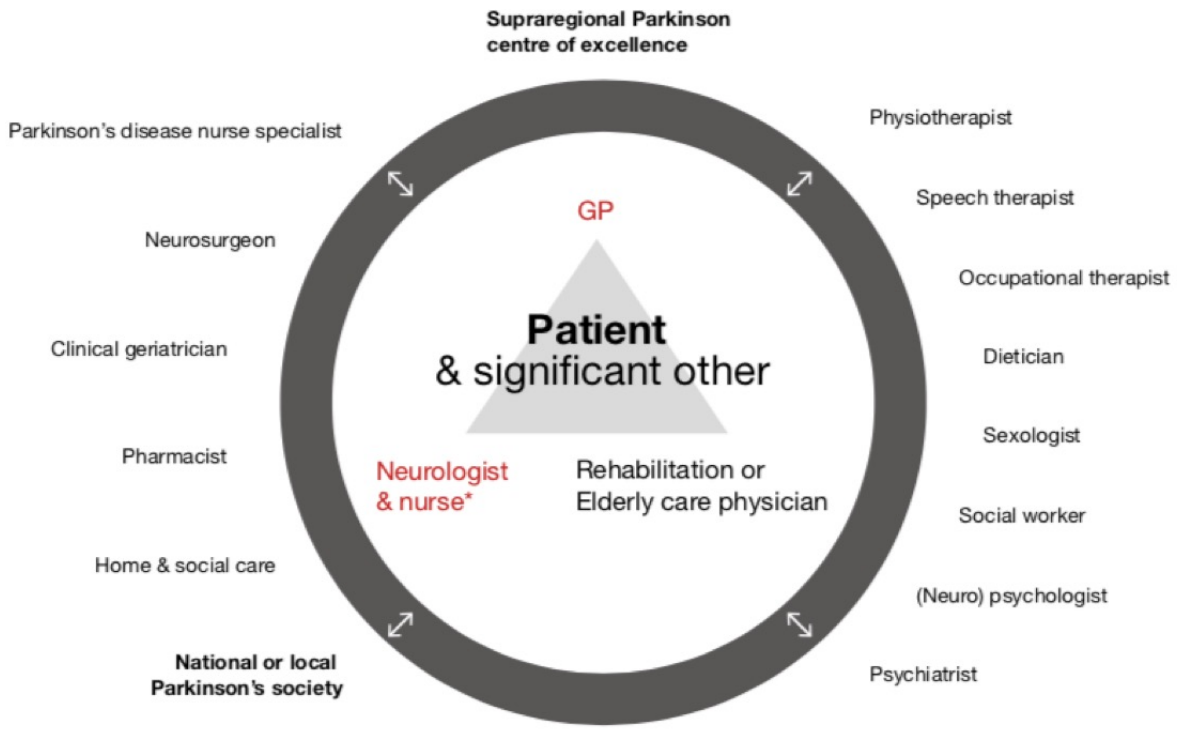
Besluit

- Parkinson-Revalidatie
  - Multi-disciplinaire aanpak



Gezondheids**Zorg** met een Ziel

Besluit

- Parkinson-Revalidatie
  - Motorisch
    - Evidence Based
    - Algemeen conditioneel – Kracht – Evenwicht – ROM
    - Focus ifv evolutie
      - Fysiek activeren => specifieke neuromotore training (tijdig!)
      - Eerstelijns onderhoud => doorgedreven revalidatie
    - Valpreventie!
      - Wanneer? Bij + valgeschiedenis & FOG
      - Ergo aan huis
  - Niet-motorisch
    - Ergotherapie, logopedie, dieet, (neuro-)psychologie,...
- Gespecialiseerde therapeuten
  - http://www.parkinsonzorgwijzervlaanderen.be

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