Nieuwe ontwikkelingen in agitatie en agressie bij dementie: van preventie tot intensieve zorg

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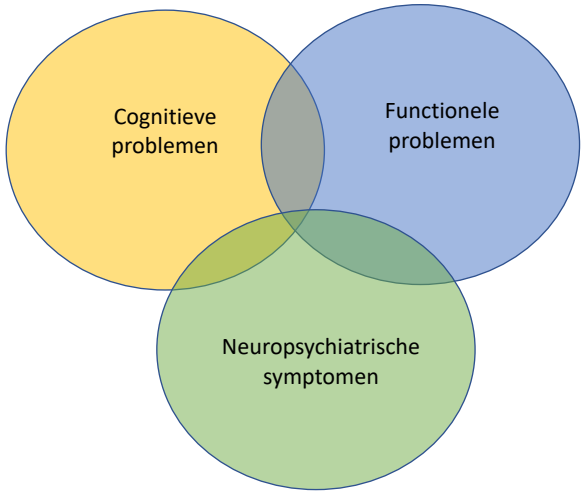
Center for Neuropsychiatry, Departement Neurowetenschappen, Leuven Brain Institute, KU Leuven

1

Neuropsychiatrische symptomen of BPSD

- Dementie is meer dan cognitieve symptomen alleen
- Dementie als 'syndroom'
- Neuropsychiatrische symptomen bij quasi alle patiënten

(=BPSD: behavioral and psychological symptoms of dementia)



2

BPSD: behavioral and psychological symptoms of dementia

- 90-100% van alle patiënten
- Vaak al in vroeg stadium: 35-85 % van alle patiënten met MCI
- Alle types dementie: Alz, Vasc, LBD, FTD

3

Neuropsychiatrische symptomen of BPSD

- Agitatie
- Agressie
- Slaapproblemen
- Apathie
- Dolen
- Hallucinaties
- Wanen
- Etc.

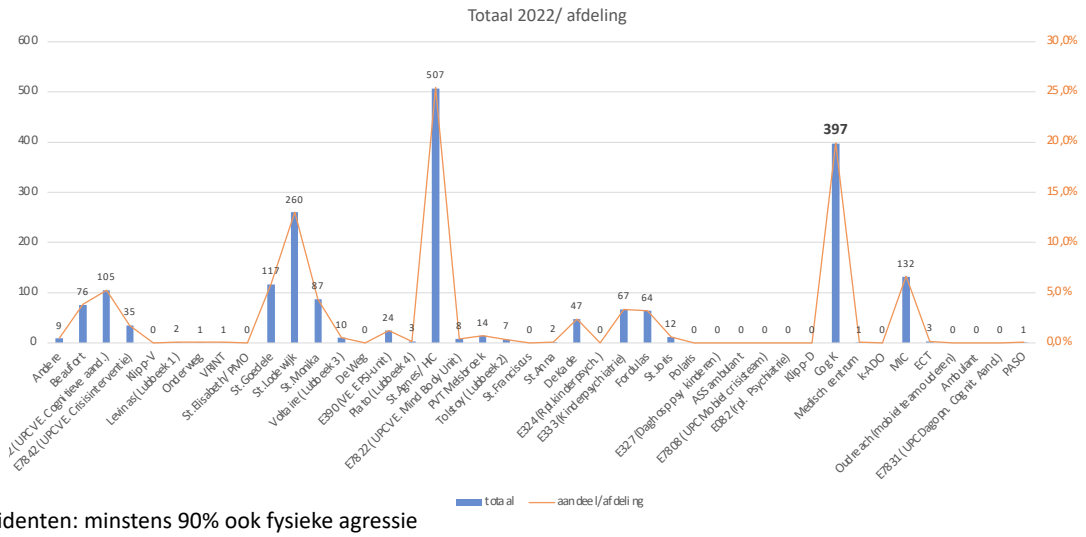
4

Agitatie

- Onaangepaste verbale, vocale of motorische activiteit
- Omvat gedrag als: verbale en fysieke agressie, roepen, schreeuwen, rusteloosheid, dolen, aanhoudend vragen om aandacht of geruststelling
- 50% mensen met dementie in de thuiscontext
- 80% mensen met dementie in residentiële zorg

5

Agressie frequent probleem



Van de incidenten: minstens 90% ook fysieke agressie

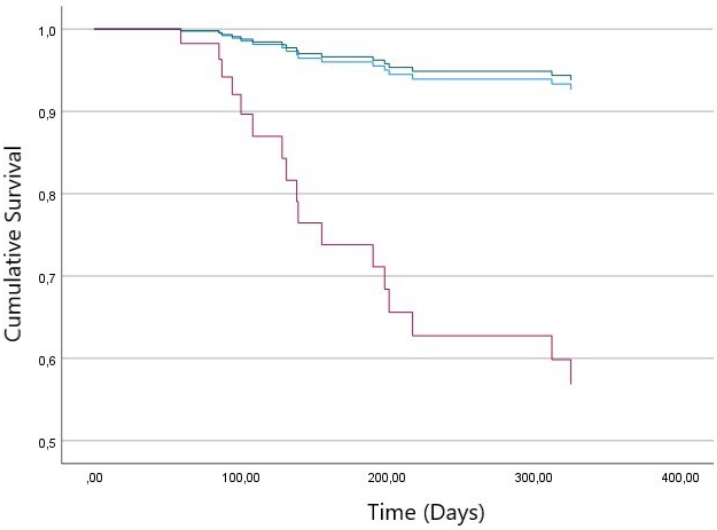
6

Waarom is agitatie belangrijk?

- Belangrijkste oorzaak opname in WZC
- Meer hospitalisaties in ziekenhuis
- Meest stress-inducerende symptoom bij verzorgenden
- Leidt tot burn-out bij verzorgenden

7

Maar ook: mortaliteit



dr. Laura Van den Bulcke

Ernstige agressie in eerste 48u na opname op COG K
=> 7x hogere kans op overlijden binnen het jaar!

(gecorrigeerd voor leeftijd, geslacht, type dementie MMSE, medicatiegebruik, somatische morbiditeit)

Van den Bulcke L et al. JAMDA 2023. Accepted.

8

En: kosten

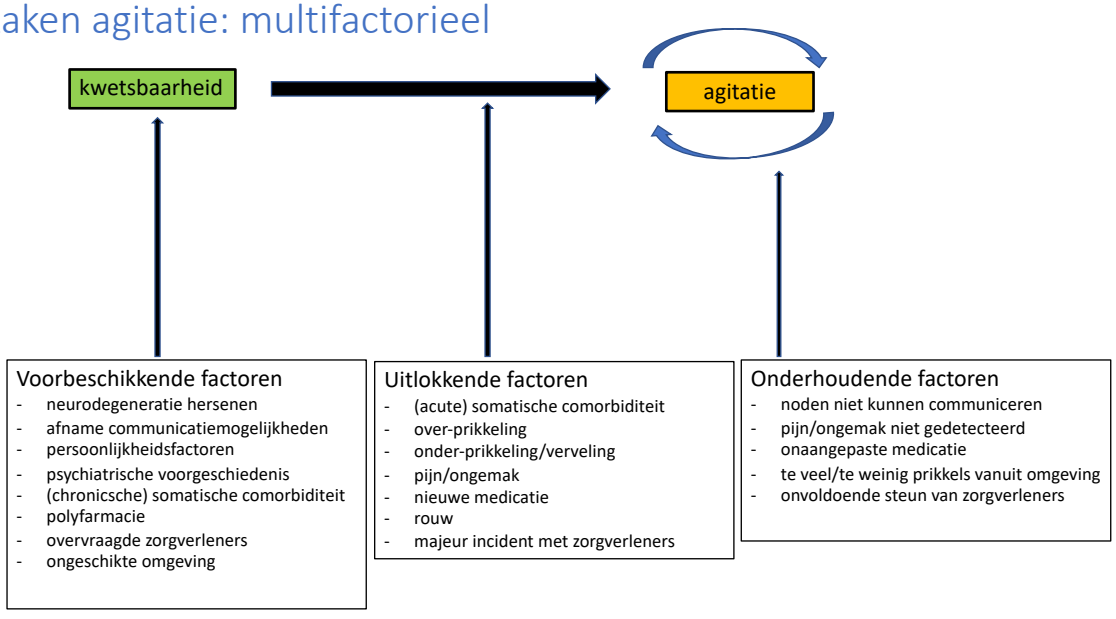
- O.a. door snellere opname WZC en meer hospitalisaties
- Geen versus ernstige agitatie: kosten x2
- Eigen berekening op basis van Europese cijfers:

Jaarlijkse kost van agitatie bij dementie in Vlaanderen alleen:

500 miljoen euro directe zorgkosten

9

Oorzaken agitatie: multifactorieel



Van Den Bossche M & Vandenbulcke M (2021) Management Approaches for Behavioural and Psychological Symptoms of Dementia

10

Biopsychosociaal model

- Steeds breed alle factoren te bekijken
- “Bio” component zeker niet te verwaarlozen
  - Hersenpathologie
  - Dysbalans neurotransmitters
  - …
- Zeker bij ernstige agitatie

11

Biologische component

Yasmin Potts

I.s.m. University of Melbourne

- Tauopathie muismodel
- Sterke hyperarousal tijdens wakkere fase
- Onderbroken slaappatroon ‘s nachts

12

Biologische complexe interacties

dr. Astrid Devulder

- Meer veranderingen in slaap bij patiënten met de ziekte van Alzheimer die ook epileptische activiteit hebben
- Complexe relatie tussen Alzheimer pathologie, slaap, epileptiforme veranderingen en slaapgerelateerde ademhalingsstoornissen

Devulder A et al. Braind and Behavior 2023. Accepted.

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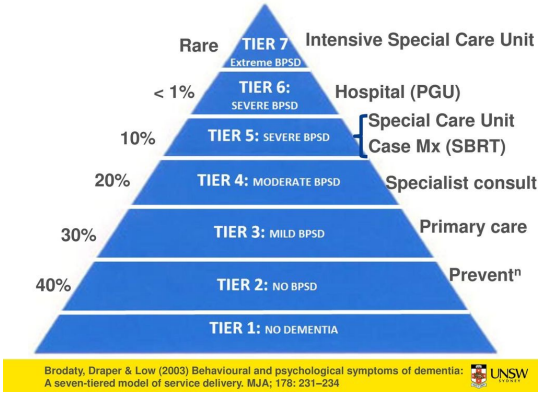
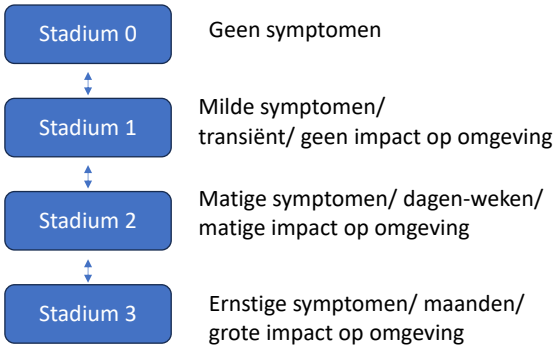
Classificatie ernst problematiek





Van Den Bossche M et al. Nature Mental Health. Accepted.

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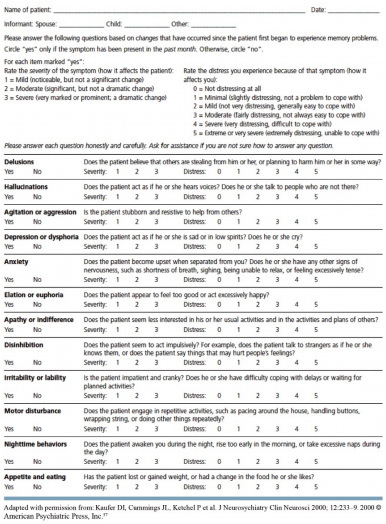
Assessment



Name of patient: _____ Date: _____

Informant: Spouse: _____ Child: _____ Other: _____

Please answer the following questions based on changes that have occurred since the patient first began to experience memory problems. Circle "yes" only if the symptom has been present in the *past month*. Otherwise, circle "no".

For each item marked "yes":
Rate the severity of the symptom (how it affects the patient):
1 = Mild (noticeable, but not a significant change)
2 = Moderate (significant, but not a dramatic change)
3 = Severe (very marked or prominent; a dramatic change)

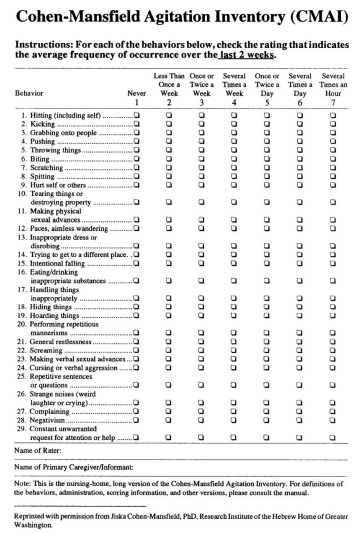
Rate the distress you experience because of that symptom (how it affects you):
0 = Not distressing at all
1 = Minimal (slightly distressing, not a problem to cope with)
2 = Mild (not very distressing, generally easy to cope with)
3 = Moderate (fairly distressing, not always easy to cope with)
4 = Severe (very distressing, difficult to cope with)
5 = Extreme or very severe (extremely distressing, unable to cope with)

Please answer each question honestly and carefully. Ask for assistance if you are not sure how to answer any question.

Delusions	Does the patient believe that others are stealing from him or her, or planning to harm him or her in some way?	Yes No Severity: 1 2 3 Distress: 0 1 2 3 4 5
Hallucinations	Does the patient act as if he or she hears voices? Does he or she talk to people who are not there?	Yes No Severity: 1 2 3 Distress: 0 1 2 3 4 5
Agitation or aggression	Is the patient stubborn and resistive to help from others?	Yes No Severity: 1 2 3 Distress: 0 1 2 3 4 5
Depression or dysphoria	Does the patient act as if he or she is sad or in low spirits? Does he or she cry?	Yes No Severity: 1 2 3 Distress: 0 1 2 3 4 5
Anxiety	Does the patient become upset when separated from you? Does he or she have any other signs of nervousness, such as shortness of breath, sighing, being unable to relax, or feeling excessively tense?	Yes No Severity: 1 2 3 Distress: 0 1 2 3 4 5
Elation or euphoria	Does the patient appear to feel too good or act excessively happy?	Yes No Severity: 1 2 3 Distress: 0 1 2 3 4 5
Apathy or indifference	Does the patient seem less interested in his or her usual activities and in the activities and plans of others?	Yes No Severity: 1 2 3 Distress: 0 1 2 3 4 5
Disinhibition	Does the patient seem to act impulsively? For example, does the patient talk to strangers as if he or she knows them, or does the patient say things that may hurt people's feelings?	Yes No Severity: 1 2 3 Distress: 0 1 2 3 4 5
Irritability or lability	Is the patient impatient and cranky? Does he or she have difficulty coping with delays or waiting for planned activities?	Yes No Severity: 1 2 3 Distress: 0 1 2 3 4 5
Motor disturbance	Does the patient engage in repetitive activities, such as pacing around the house, handling buttons, wrapping string, or doing other things repeatedly?	Yes No Severity: 1 2 3 Distress: 0 1 2 3 4 5
Nighttime behaviors	Does the patient awaken you during the night, rise too early in the morning, or take excessive naps during the day?	Yes No Severity: 1 2 3 Distress: 0 1 2 3 4 5
Appetite and eating	Has the patient lost or gained weight, or had a change in the food he or she likes?	Yes No Severity: 1 2 3 Distress: 0 1 2 3 4 5

Adapted with permission from: Kaufer DI, Cummings JL, Ketchel P et al. J Neuropsychiatry Clin Neurosci 2000; 12:233–9. 2000 © American Psychiatric Press, Inc.[37]

Neuropsychiatric Inventory



Cohen-Mansfield Agitation Inventory (CMAI)

Instructions: For each of the behaviors below, check the rating that indicates the average frequency of occurrence over the last 2 weeks.

Behavior	Never 1	Less Than Once a Week 2	Once or Twice a Week 3	Several Times a Week 4	Once or Twice a Day 5	Several Times a Day 6	Several Times an Hour 7
1. Hitting (including self)	❑	❑	❑	❑	❑	❑	❑
2. Kicking	❑	❑	❑	❑	❑	❑	❑
3. Grabbing onto people	❑	❑	❑	❑	❑	❑	❑
4. Pushing	❑	❑	❑	❑	❑	❑	❑
5. Throwing things	❑	❑	❑	❑	❑	❑	❑
6. Biting	❑	❑	❑	❑	❑	❑	❑
7. Scratching	❑	❑	❑	❑	❑	❑	❑
8. Spitting	❑	❑	❑	❑	❑	❑	❑
9. Hurt self or others	❑	❑	❑	❑	❑	❑	❑
10. Tearing things or destroying property	❑	❑	❑	❑	❑	❑	❑
11. Making physical sexual advances	❑	❑	❑	❑	❑	❑	❑
12. Pacing, aimless wandering	❑	❑	❑	❑	❑	❑	❑
13. Inappropriate dress or disrobing	❑	❑	❑	❑	❑	❑	❑
14. Trying to get to a different place	❑	❑	❑	❑	❑	❑	❑
15. Intentional falling	❑	❑	❑	❑	❑	❑	❑
16. Eating/drinking inappropriate substances	❑	❑	❑	❑	❑	❑	❑
17. Handling things inappropriately	❑	❑	❑	❑	❑	❑	❑
18. Hiding things	❑	❑	❑	❑	❑	❑	❑
19. Hoarding things	❑	❑	❑	❑	❑	❑	❑
20. Performing repetitious mannerisms	❑	❑	❑	❑	❑	❑	❑
21. General restlessness	❑	❑	❑	❑	❑	❑	❑
22. Screaming	❑	❑	❑	❑	❑	❑	❑
23. Making verbal sexual advances	❑	❑	❑	❑	❑	❑	❑
24. Cursing or verbal aggression	❑	❑	❑	❑	❑	❑	❑
25. Repetitive sentences or questions	❑	❑	❑	❑	❑	❑	❑
26. Strange noises (weird laughter or crying)	❑	❑	❑	❑	❑	❑	❑
27. Complaining	❑	❑	❑	❑	❑	❑	❑
28. Negativism	❑	❑	❑	❑	❑	❑	❑
29. Constant unwarranted request for attention or help	❑	❑	❑	❑	❑	❑	❑

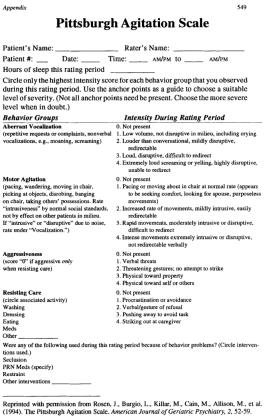
Name of Rater: _____

Name of Primary Caregiver/Informant: _____

Note: This is the nursing-home, long version of the Cohen-Mansfield Agitation Inventory. For definitions of the behaviors, administration, scoring information, and other versions, please consult the manual.

Reprinted with permission from Jiska Cohen-Mansfield, PhD, Research Institute of the Hebrew Home of Greater Washington.

Cohen-Mansfield Agitation Inventory



Appendix 549

Pittsburgh Agitation Scale

Patient's Name: _____ Rater's Name: _____

Patient #: ___ Date: _____ Time: _____ AM/PM TO _____ AM/PM

Hours of sleep this rating period _____

Circle only the highest intensity score for each behavior group that you observed during this rating period. Use the anchor points as a guide to choose a suitable level of severity. (Not all anchor points need be present. Choose the more severe level when in doubt.)

Behavior Groups	*Intensity During Rating Period*
Aberrant Vocalization (repetitive requests or complaints, nonverbal vocalizations, e.g., moaning, screaming)	0. Not present 1. Low volume, not disruptive in milieu, including crying 2. Louder than conversational, mildly disruptive, redirectable 3. Loud, disruptive, difficult to redirect 4. Extremely loud screaming or yelling, highly disruptive, unable to redirect
Motor Agitation (pacing, wandering, moving in chair, picking at objects, disrobing, banging on chair, taking others' possessions. Rate "intrusiveness" by normal social standards, not by effect on other patients in milieu. If "intrusive" or "disruptive" due to noise, rate under "Vocalization.")	0. Not present 1. Pacing or moving about in chair at normal rate (appears to be seeking comfort, looking for spouse, purposeless movements) 2. Increased rate of movements, mildly intrusive, easily redirectable 3. Rapid movements, moderately intrusive or disruptive, difficult to redirect 4. Intense movements extremely intrusive or disruptive, not redirectable verbally
Aggressiveness (score "0" if aggressive *only* when resisting care)	0. Not present 1. Verbal threats 2. Threatening gestures; no attempt to strike 3. Physical toward property 4. Physical toward self or others
Resisting Care (circle associated activity) Washing Dressing Eating Meds Other _____	0. Not present 1. Procrastination or avoidance 2. Verbal/gestures of refusal 3. Pushing away to avoid task 4. Striking out at caregiver

Were any of the following used during this rating period because of behavior problems? (Circle interventions used.)
Seclusion
PRN Meds (specify) _____
Restraint
Other interventions _____

Reprinted with permission from Rosen, J., Burgio, L., Kollar, M., Cain, M., Allison, M., et al. (1994). The Pittsburgh Agitation Scale. *American Journal of Geriatric Psychiatry, 2*, 52-59.

Pittsburgh Agitation Scale

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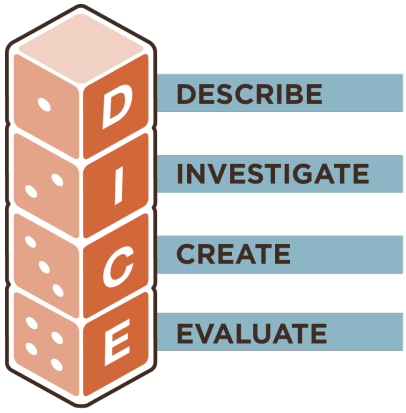
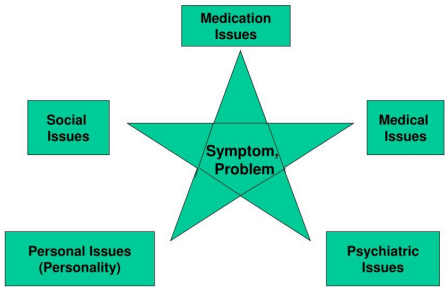
Assessment



DICE



Wisconsin Star

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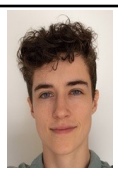
Beperkingen huidige assesment

- Metingen nu puur subjectief (by proxy)
- Niet continu
- Soms evaluatie te lange periode (recall bias, effect interventie moeilijk te beoordelen) of te momentaan (agitatie kan zeer sterk fluctueren)

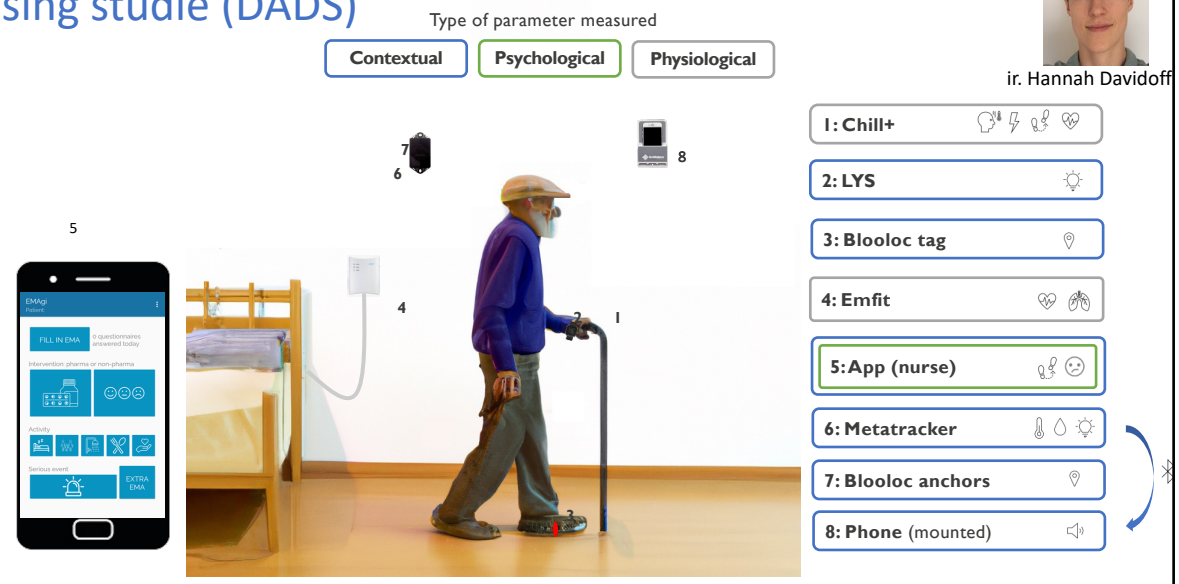
- Onduidelijk wat agitatie getriggerd heeft

17

Dissecting Agitation in Dementia by multimodal Sensing studie (DADS)



ir. Hannah Davidoff



Davidoff H et al. Innovation in Aging 2022

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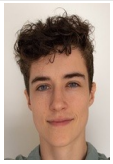

ir. Hannah Davidoff

Fysiologische “handtekening” van agitatie

Types agitatie te onderscheiden

Davidoff H et al. Submitted.

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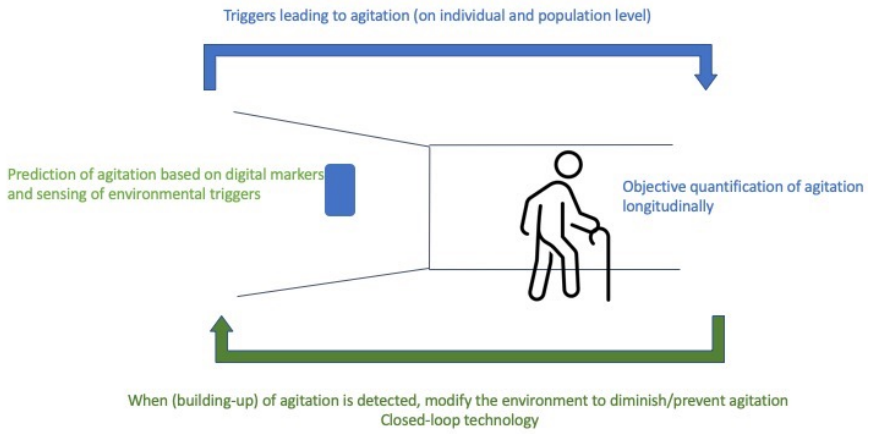
Preventie agitatie: technologie?

Aanpassing triggers via closed-loop?



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Preventie: versterken omgeving

Opleiden van staf in residentiële zorg in persoonsgerichte zorg, sociale interactie en antipsychoticagebruik

Outcome measure	Adjusted effect (SE)*	*p*-Value	Mean difference (SEM)	95% CI of mean difference	Effect size (Cohen's *D*)	Number needed to treat^Δ
DEMQOL-Proxy (*n* = 553)	*R* = 0.12 *Z* = 2.82	0.0042	2.54+ (0.88)	0.81, 4.28	0.24	9
CMAI (*n* = 553)	*R* = 0.11; *Z* = 2.68	0.0076	4.27+ (1.59)	−7.39, −1.15	0.23	6
NPI-NH (*n* = 547)	*R* = −1.5; *Z* = 3.52	<0.001	4.55+ (1.28)	−7.07, −2.02	0.30	9

Ballard C et al. Plos Med 2018.

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Behandeling agitatie

- Aandacht voor bio-psycho-sociaal model
- Multidisciplinair
- First things first

<u>In principe:</u>

1. assessment
2. behandelbare oorzaken aanpakken
3. non-farmacologische behandeling
4. farmacologische behandeling

CAVE: urgentie, ernstige dreiging

22

Behandeling: aanpakken behandelbare oorzaken

- Pijn
- Somatische problemen
  - Ook 'banalere' als obstipatie
  - Overlap delier
- Medicatie
  - Polyfarmacie
  - Anticholinerge effecten
  - Nieuwe medicatie

23

Behandeling

- Persoonsgerichte zorg
- Psychotherapie
- Ergotherapie
- Psychomotorische therapie
- Muziektherapie
- Aromatherapie
- Massage
- Snoezelen
- Lichttherapie
- Dementie-clowns
- Virtual reality

=> workshop deze namiddag

Cave: toename agitatie ook beschreven met heel wat therapieën

24

Behandeling: Medicatie?

1 op de 3 ouderen in woonzorgcentra krijgt een antipsychoticum: "Nuttig voor sommige mensen, maar wordt ook te vaak fout gebruikt"

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Medicamenteuze behandeling

Symptoom	Overweeg	Wanneer therapie-resistent, overweeg ook	Specifieke omstandigheden
Agitatie	Serotonine-heropnameremmers (SSRI), atypisch antipsychoticum, AChI	Trazodon	Overweeg bij FTD ook trazodon als farmacologische eerstekeuzebehandeling
Agressie	Atypisch antipsychoticum	AChI, benzodiazepines, trazodon	Wanneer snelle, kortdurende sedatie noodzakelijk is, overweeg benzodiazepines

Van Den Bossche M et al. Medi-sfeer 2023

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Medicamenteuze behandeling

WARNING: INCREASED MORTALITY IN ELDERLY PATIENTS WITH DEMENTIA-RELATED PSYCHOSIS

See full prescribing information for complete boxed warning.

Elderly patients with dementia-related psychosis treated with antipsychotic drugs are at an increased risk of death. RISPERDAL® is not approved for use in patients with dementia-related psychosis. (5.1)

- Antipsychotica bij dementie niet lichtvaardig (enkel bij ernstige agitatie/agressie/psychose en falen niet-medicamenteuze behandeling of urgentie
- In principe proberen stoppen na 8-12 weken
- Twee studies suggereren indien bij baseline zeer ernstige BPSD (NPI>14): beter continueren?

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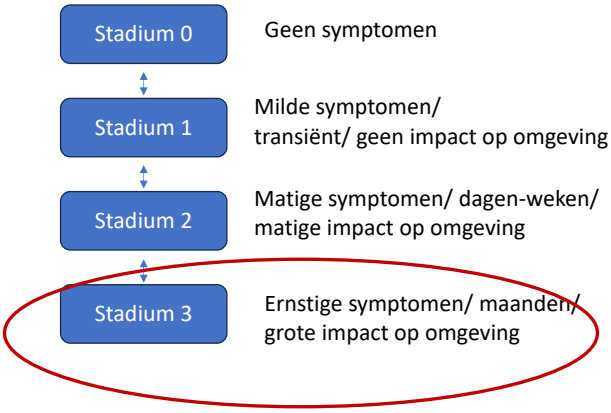
Medicatie soms nuttig/nodig



Van Den Bossche M et al. Nature Mental Health. Accepted.

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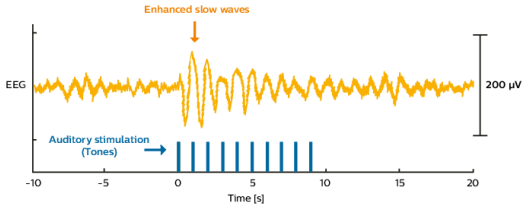
Nieuwe technologie in behandeling?

dr. Laura Van den Bulcke

Akoestische stimulatie van diepe slaap bij zv Alzheimer



Koning Boudewijnstichting

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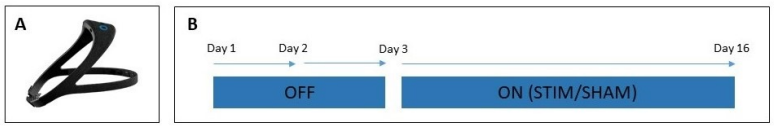
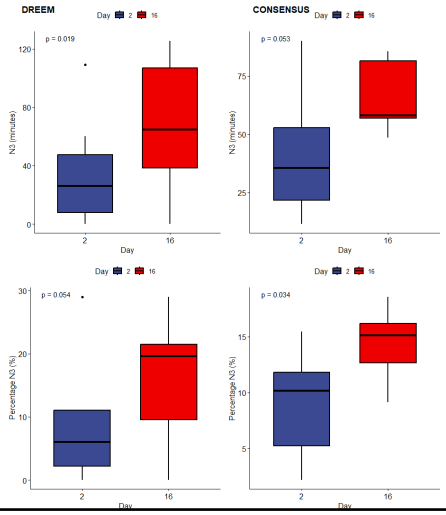
dr. Laura Van den Bulcke



- Effect op (diepe) slaap
- Effect op stemming/gedrag overdag?



Van den Bulcke L. et al. Journal of Clinical Sleep Medicine 2023

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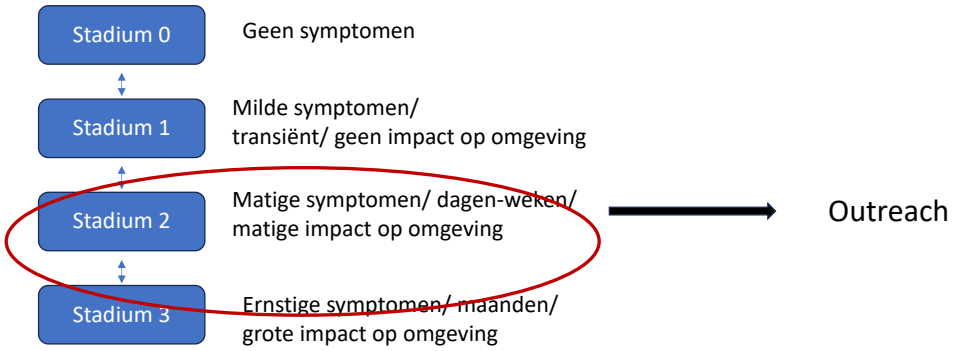
Organisatie van zorg



Van Den Bossche M et al. Nature Mental Health. Accepted (pending minor revisions).

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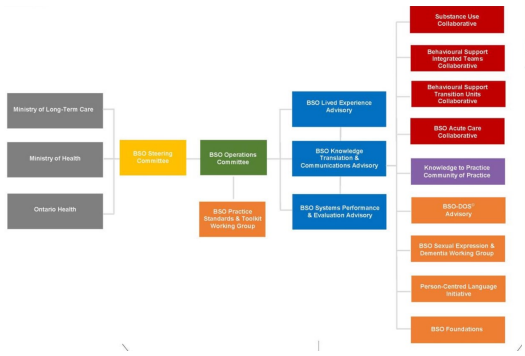
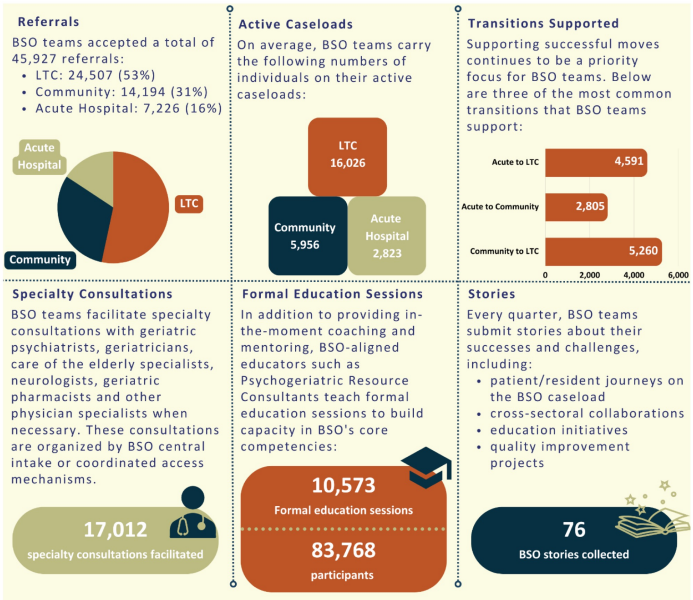
Voorbeeld: programma Ontario, Canada

Behavioural Supports Ontario
Soutien en cas de troubles du comportement en Ontario

40 miljoen euro/jaar





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Ook in UPC KU Leuven

- Oud-reach
- Sinds 2020
- 2A + 2B werking

- Herstelgericht
- Shared decision
- Zo kort als kan, zo lang als moet

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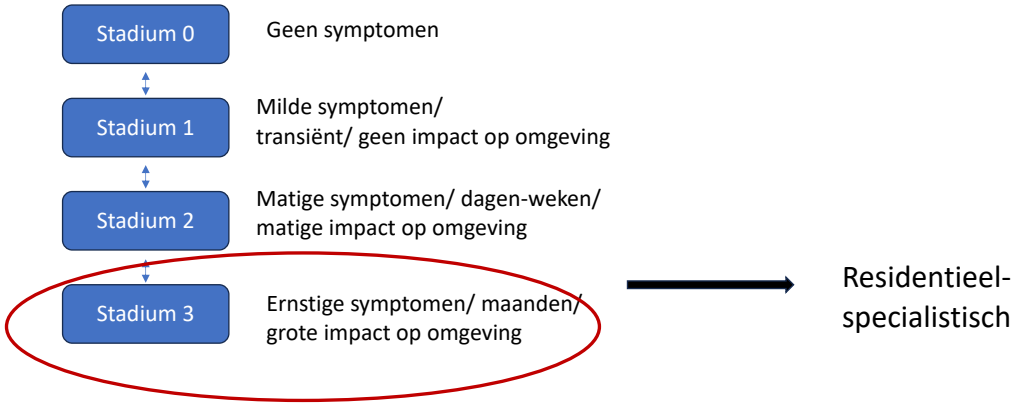
Organisatie van zorg



Van Den Bossche M et al. Nature Mental Health. Accepted.

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COG K: High intensive care voor BPSD

- 20 bedden
- 4 HIC kamers
- Multidisciplinair
- Ervaren en uitgebreid verpleegkundig team
- Medische expertise
- Breed therapeutisch aanbod: psycho-, ergo-, muziek-, PMT, sociaal

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COG K

- (Zeer) ernstige gedragsproblemen (voornamelijk agressie, ernstige agitatie, ernstig verstoorde nachten, roepen, …)
- Gemiddelde verblijfsduur: 7,5 weken
- Heropname-percentage: 7%

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Dank aan

UPC KU Leuven

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