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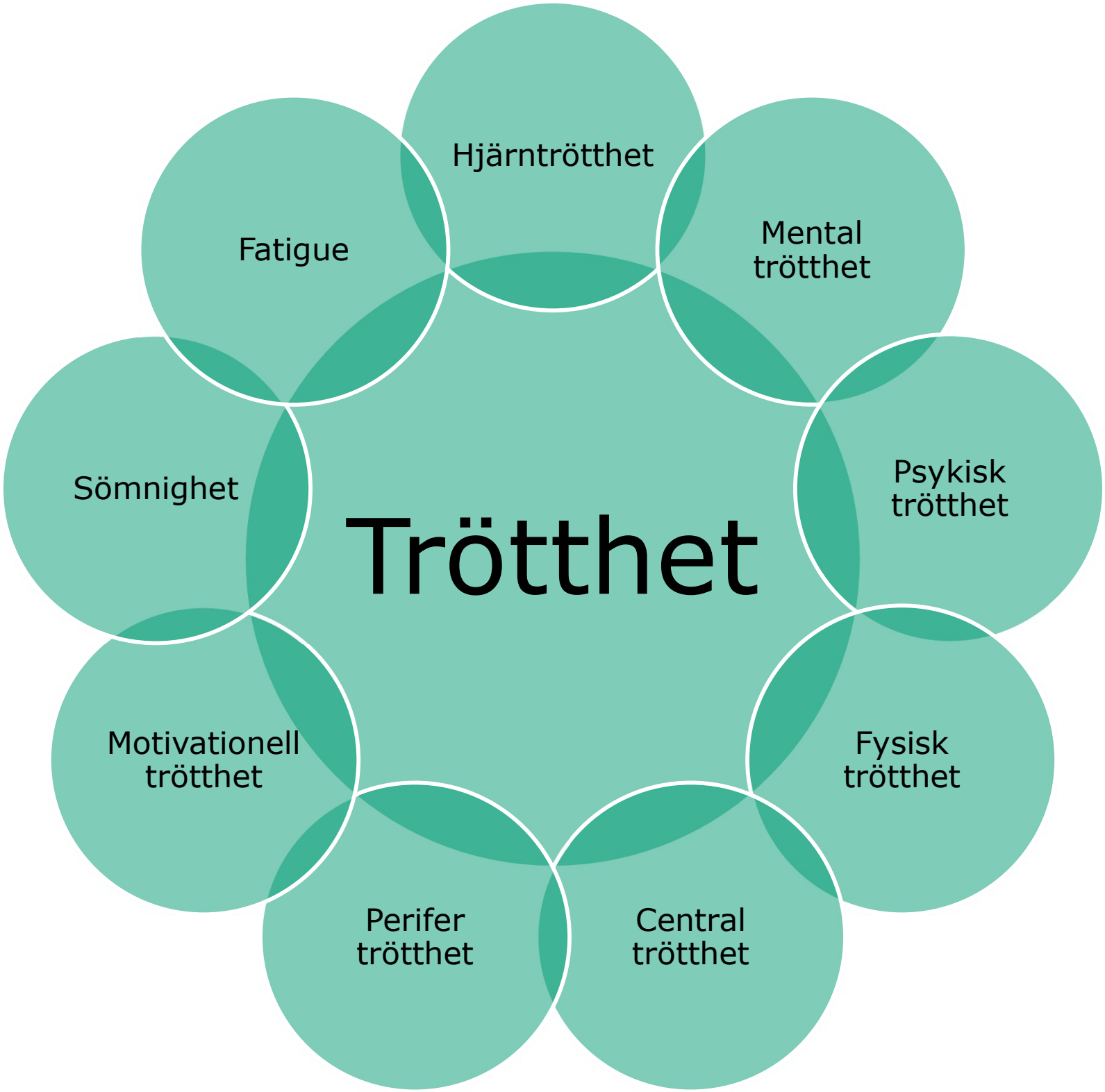
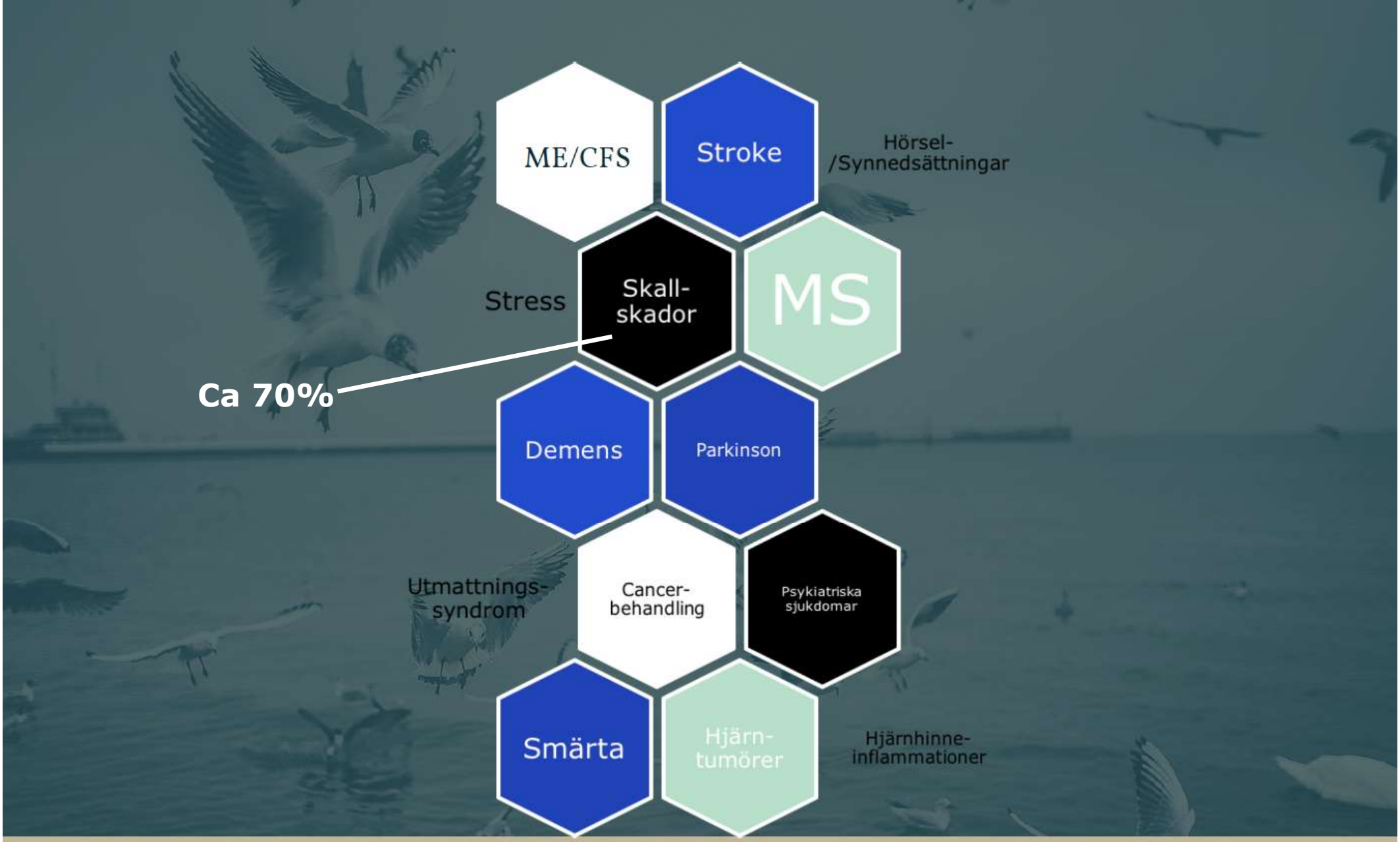
HJÄRNTRÖTTHET

ELLER VAD VI NU SKA KALLA DET...

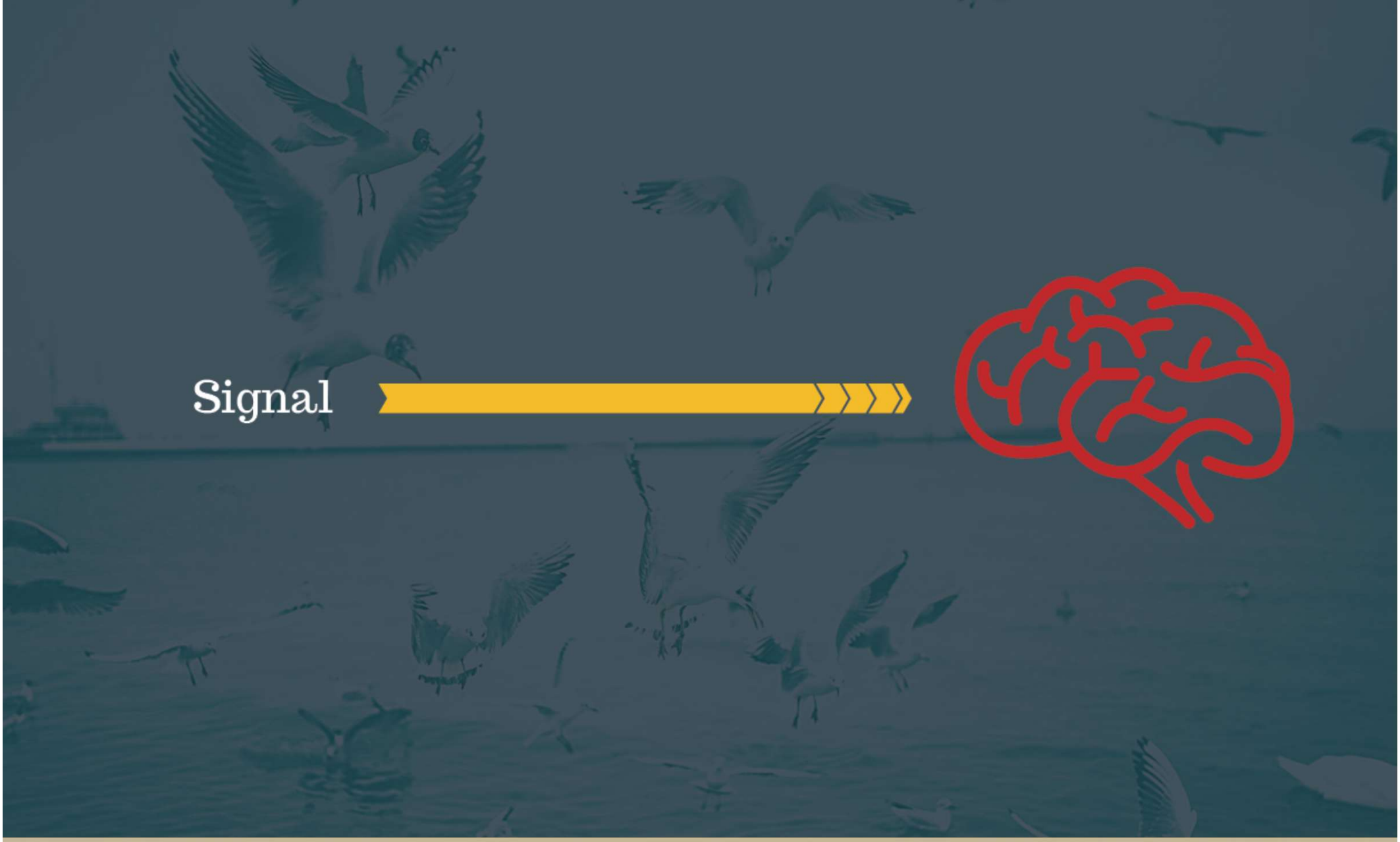
Nils Berginström, leg psykolog och Universitetslektor
Hjärn- och ryggmärgsskaderehab Nus,
Institutionen för Psykologi/Institutionen för Samhällsmedicin och Rehabilitering, Umeå Universitet


Tröttthet
Hjärntrötthet
Mental trötthet
Psykisk trötthet
Fysisk trötthet
Central trötthet
Perifer trötthet
Motivationell trötthet
Sömnighet
Fatigue

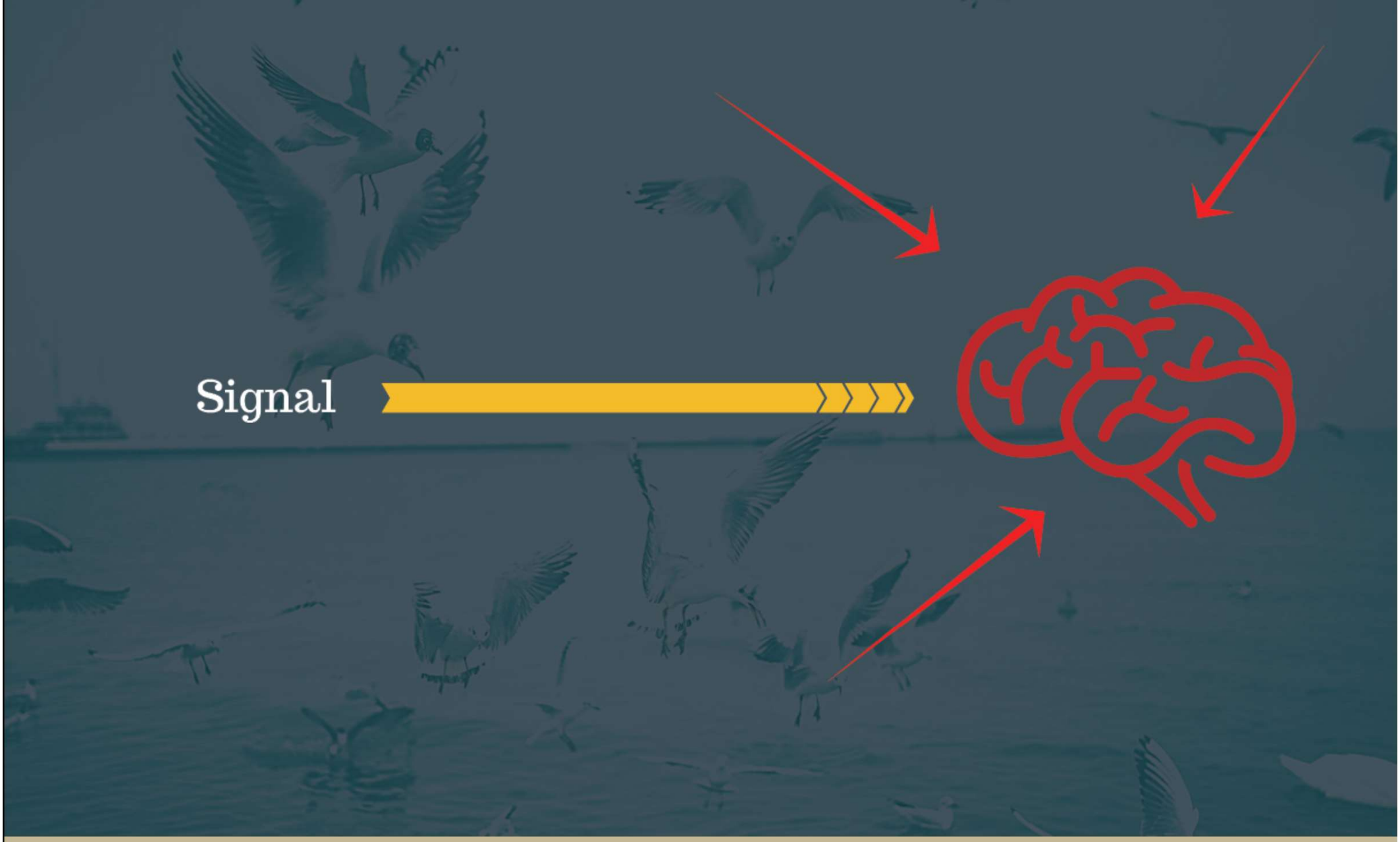


VAD ORSAKAR HJÄRNTRÖTTHET?


Hjärntrötthet
Mental ansträngning
Många intryck
Känslopåfrestning
Tankar
Avsaknad av vila

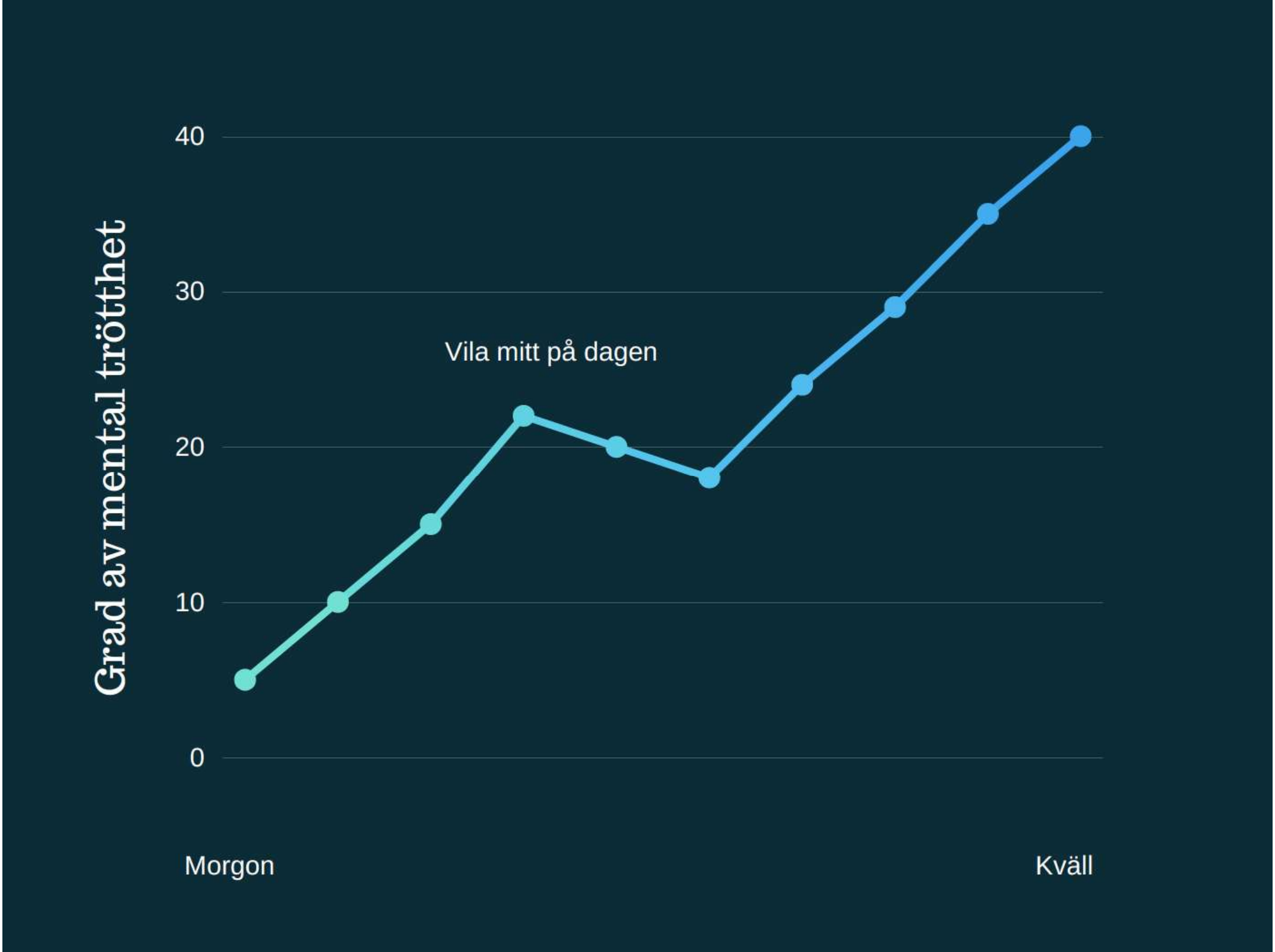


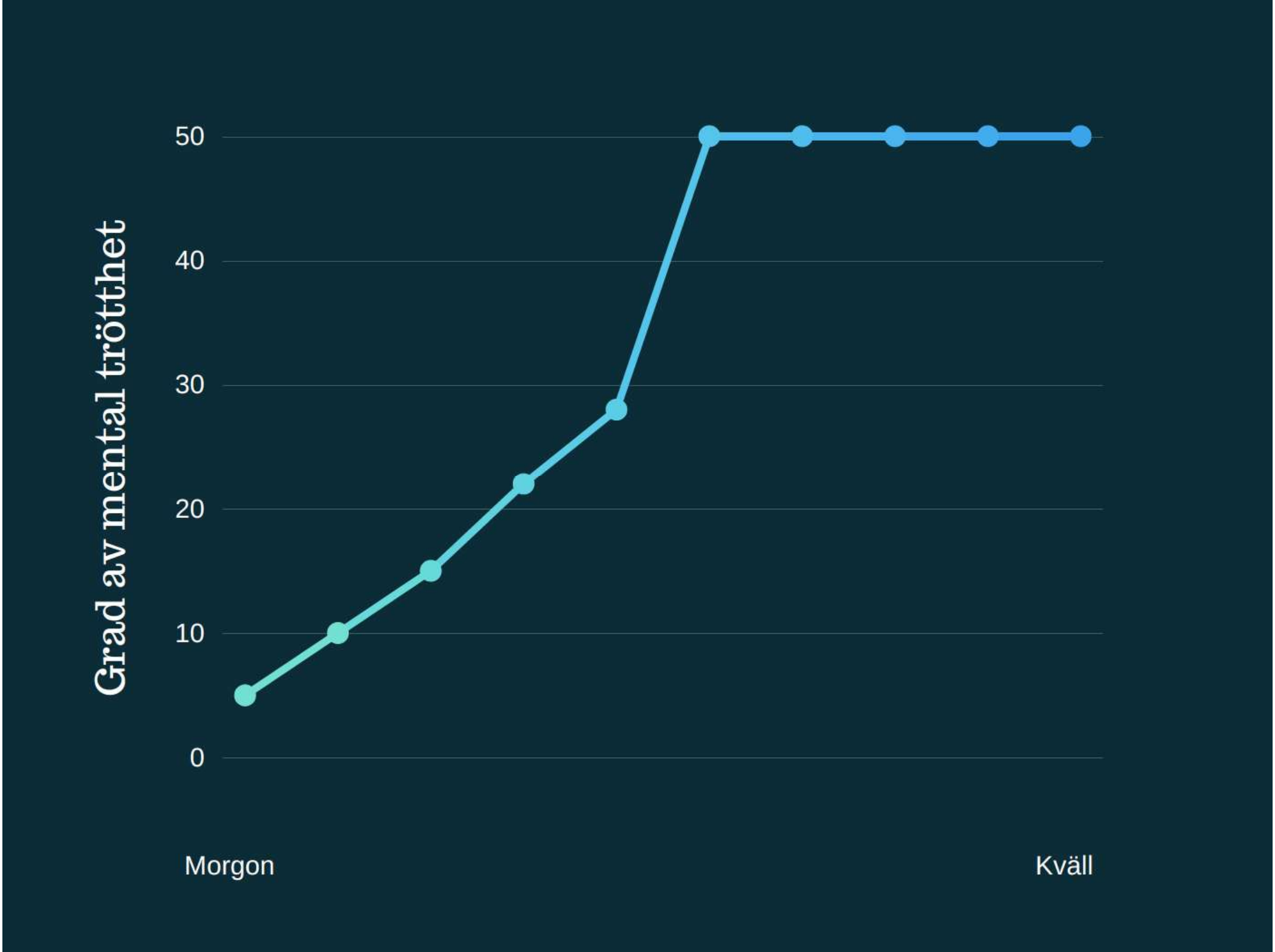
HJÄRNTRÖTTHET OCH INTRYCK

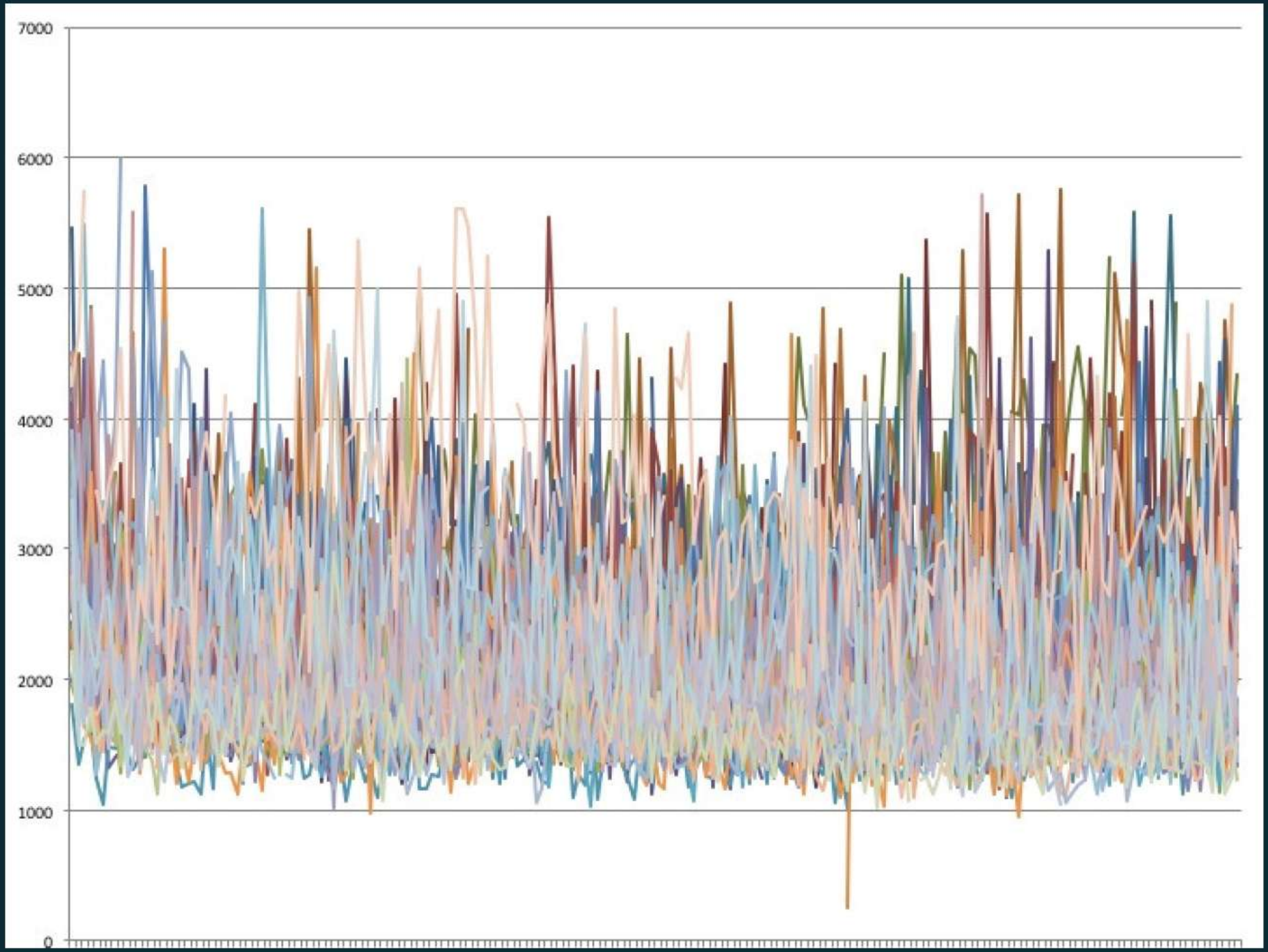


HJÄRNTRÖTTHET OCH INTRYCK


Hjärntrötthet
Mental ansträngning
Många intryck
Känslopåfrestning
Tankar
Avsaknad av vila


Grad av mental trötthet
40
30
20
10
0
Vila mitt på dagen
Morgon
Kväll


Grad av mental trötthet
50
40
30
20
10
0
Morgon
Kväll


7000
6000
5000
4000
3000
2000
1000
0


Sämre koncentration
Huvud-värk
Långsamhet i tanke-bearbetning
Dygns-variation
Minnes-problem
Förmåga att komma igång
Hjärn-trötthet
Stress-känslighet
Ljus-känslighet
Ökad Känslo-samhet
Ljud-känslighet
Irritabilitet
Sömn-problem

VAD ORSAKAR TRÖTTHET VID SKALLSKADA?

- Det lätta (och mest korrekta?) svaret – Vi vet inte…

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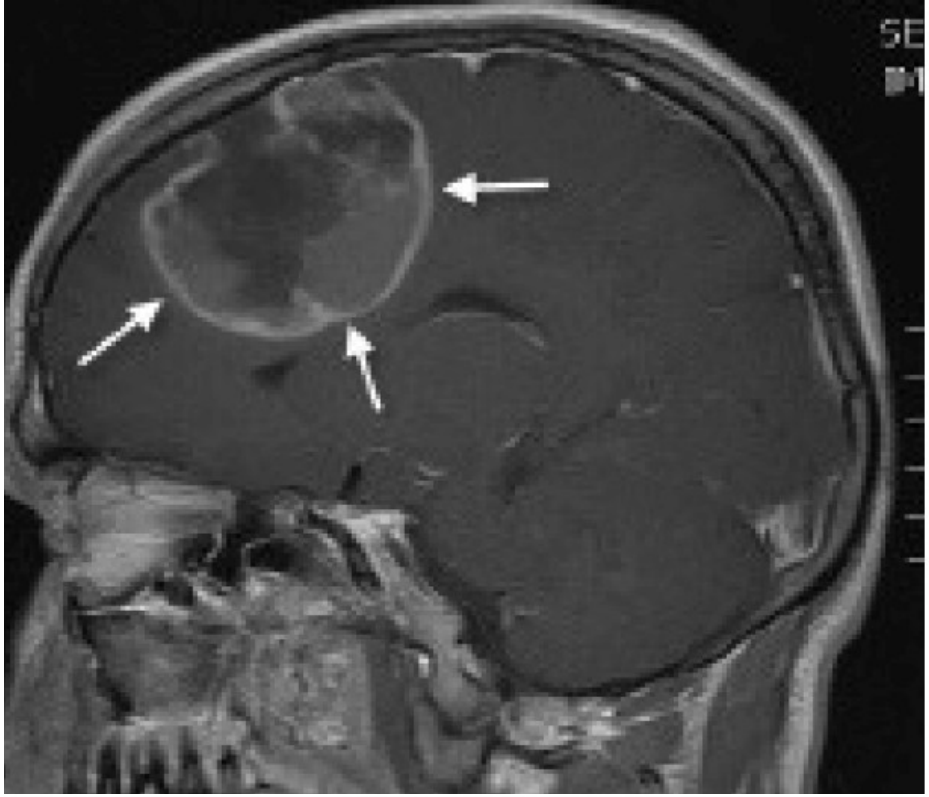
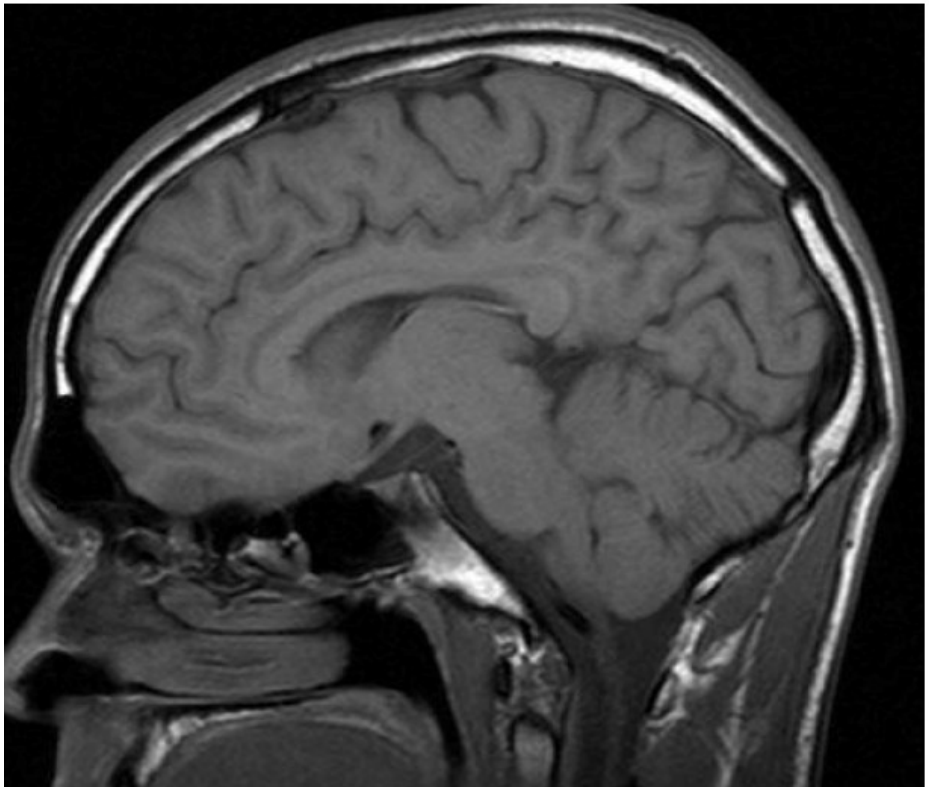
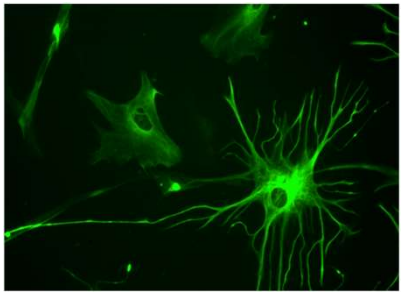
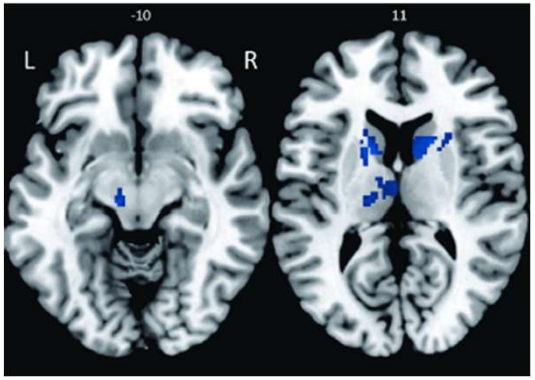


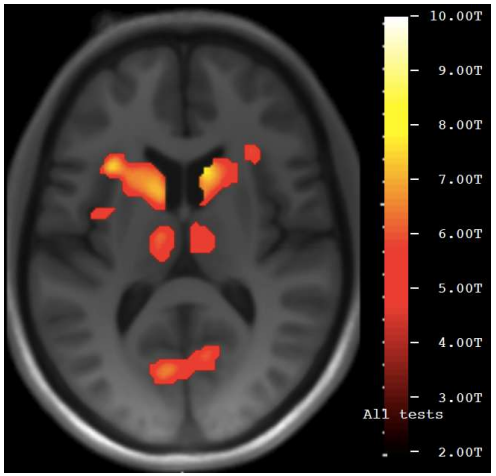


VAD SER MAN INUTI?





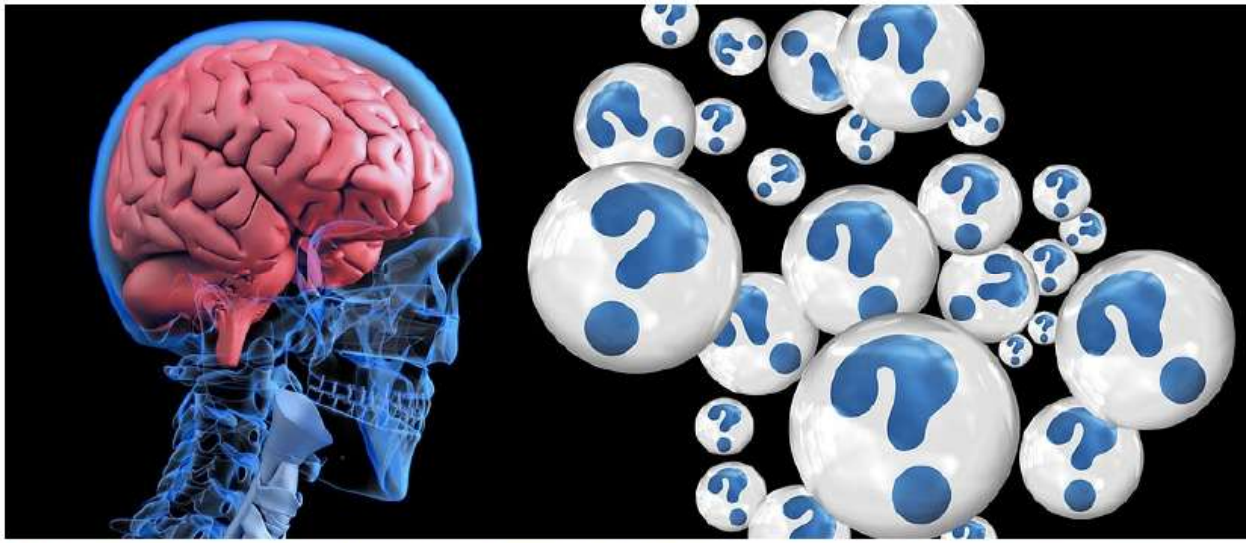
Engstrom M, Flensner G, Landtblom AM, Ek AC, Karlsson T. Thalamo-striato-cortical determinants to fatigue in multiple sclerosis. Brain Behav. 2013;3(6):715-728.



Berginström N, Nordström P, Ekman U, Eriksson J, Andersson M, Nyberg L, Nordström A. Using Functional Magnetic Resonance Imaging to Detect Chronic Fatigue in Patients With Previous Traumatic Brain Injury: Changes Linked to Altered Striato-Thalamic-Cortical Functioning. J Head Trauma Rehabil. 2018 Jul/Aug;33(4):266-274.

VAD SER MAN UTANPÅ?

ATT HANTERA SIN TRÖTTHET



ATT BEHANDLA TRÖTTHET EFTER SKALLSKADA

Men kom ihåg att behandla det som kan behandlas!

J Head Trauma Rehabil

OPEN

Fatigue After Traumatic Brain Injury: A Systematic Review

Arshad Ali, MHA; Jussely Morfin, BS; Judith Mills, AHIP, MLIS, NCMA; Elizabeth C. Pasipanodya, PhD; Yvonne J. Maas, MSc; Emily Huang, MD; Benjamin Dirlikov, MA; Jeffrey Englander, MD; Aglaia Zedlitz, PhD

Objective: To provide a systematic review of published interventions for post[illegible] fatigue ([illegible]). **Methods:** PubMed and OneSearch were systematically searched for PTB[illegible] interv[illegible] between January 1, 1989, and March 31, 2019. Search results were evaluated for inclusion [illegible] abs[illegible] and full-text review. Inclusion criteria were (1) an investigation of an intervention, (2) partic[illegible] including individuals with traumatic brain injury (TBI), (3) report of fatigue outcome data among [illegible] with TBI, and (4) artic[illegible] available in English, Spanish, French, German, Afrikaans, or D[illegible]. A risk o[illegible] assessment was conducted on all included publications. **Results:** The search resulted in [illegible] p[illegible], with 37 meeting inclusion [illegible] for this review. Categories of PTBIF interventions were [illegible] (n = 13), psycho[illegible] based (n = 4), complementary alternative medici[illegible] [illegible] otherapeutic (n = [illegible] ultim[illegible] 3). Only methylphenidate, modafinil, and co[illegible] therapy interventions incl[illegible] multiple cohorts. Pharmacological and psychological interve[illegible] the groups with the lowest risk [illegible] **Conclusions:** This review includes 37 stu[illegible] with [illegible] lished after 2014. Methylph[illegible] idate and [illegible] onin were the only pharmacological agents [illegible] red[illegible] fatigue in randomized controlle[illegible] Creatine given to children prospectively at onset of injury [illegible] fatigue at follow-up. Walking a[illegible] were effective exercise interventions in isolated rando[illegible] olled studies. One mu[illegible] children after concussion was more effective [illegible] ducing fat[illegible] and postconcussion symptoms [illegible] co[illegible] unity standard of care. Other interventions had [illegible] results. Overall, more work rem[illegible] and develop treatments for PTBIF.
Key words: *bra[illegible], intervention, mental fatigue, T[illegible] trau[illegible] traumatic brain injury*

TR[illegible] ATI[illegible] BRA[illegible] INJURY (TBI) [illegible] caused by ex[illegible] al force to the cranium and i[illegible] ranial [illegible] an[illegible] result in profound [illegible] Approximately 2.5 million individuals sustain TBIs in the United States each year, resulting in approximately 50 000 deaths, over 80 000 permanent disabilities, and an estimated $60 billion in direct and indirect costs.[2]

Effectiven[illegible] biomedic[illegible] inte[illegible] on th[illegible] stage [illegible] traumatic [illegible] injury: a s[illegible] tematic rev[illegible] randomized controlled [illegible]

Keisuke [illegible][1,2], Devin J. Rettke[1], Christopher Thompson[1], Rebe[illegible] Ma[illegible] ix[4,5], Jeffrey J. Bazarian[6] and Dibyadyuti Datta[2]

[1]Dep[illegible] Kinesiology, Indiana University School of Public Health-Bloomington, Bloomington, [illegible] United States, [2]Department of Pediatrics, Indiana University School of Medicine, Indianapolis, IN, [illegible] States, [3]Program in Neuroscience, The College of Arts and Sciences, Indiana University, Bloomington, IN, United States, [4]Division of Emergency Medicine, Boston Children's Hospital, Boston, MA, United States, [5]Department of Pediatrics, Harvard Medical School, Boston, MA, United States, [6]Department of Emergency Medicine, University of Rochester School of Medicine and Dentistry, Rochester, NY, United States

BRAIN INJURY
2024, VOL. 38, NO. 6, 403–416
https://doi.org/10.1080/02699052.2024.2318599

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Non–pharmacological interventions for sleep disruptions and fatigue after traumatic brain injury: a scoping review

Charles Gervais[a], Danny Hjeij[b], Laura Fernández-Puerta[c], and Caroline Arbour[b]

[a]Department of Psychology, Université de Montréal, Montreal, Canada; [b]Faculty of Nursing, Université de Montréal, Montreal, Canada; [c]School of Health Sciences, Department of Nursing, University of Granada, Granada, Spain

ABSTRACT
Objective: The aim of this study was to conduct a scoping review to determine the nature, variety, and volume of empirical evidence on nonpharmacological interventions for sleep disturbances with potential implications for fatigue in adults sustaining a traumatic brain injury (TBI).
Methods: A systematic literature search was conducted across four databases to identify primary studies testing a single non-pharmacological intervention or a combination of non-pharmacological interventions for sleep disturbances and fatigue in community-dwelling adults with TBI.
Results: Sixteen studies were reviewed addressing six non-pharmacological interventions for sleep disruptions and fatigue after TBI including light therapy, cognitive-behavioral therapy, warm footbath application, shiatsu, and sleep hygiene protocol. Non-pharmacological interventions involving light or cognitive-behavioral therapy were reported in 75% of the studies. Actigraphy-based estimation of total sleep time and subjective level of fatigue were frequent outcomes.
Conclusion: While this scoping review has utility in describing existing non-pharmacological approaches to manage sleep and fatigue after TBI, the findings suggest that interventions are often developed without considering TBI individuals' source of motivation and the need for support in self-administration. Future studies may achieve greater sustainability by considering the evolving needs of TBI patients and their families and the drivers and barriers that might influence non-pharmacological intervention use at home.

ARTICLE HISTORY
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KEYWORDS
Brain injury; sleep; fatigue; insomnia; non-pharmacological; scoping review

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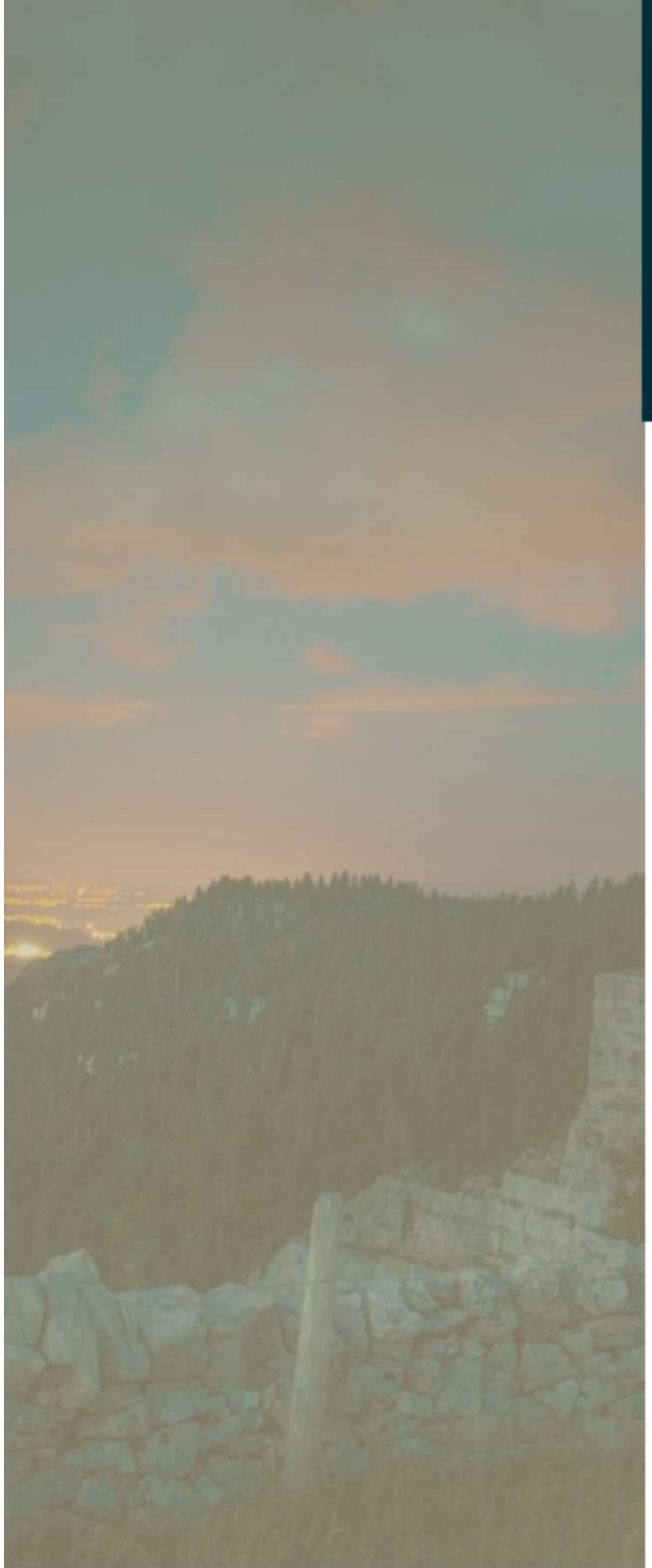
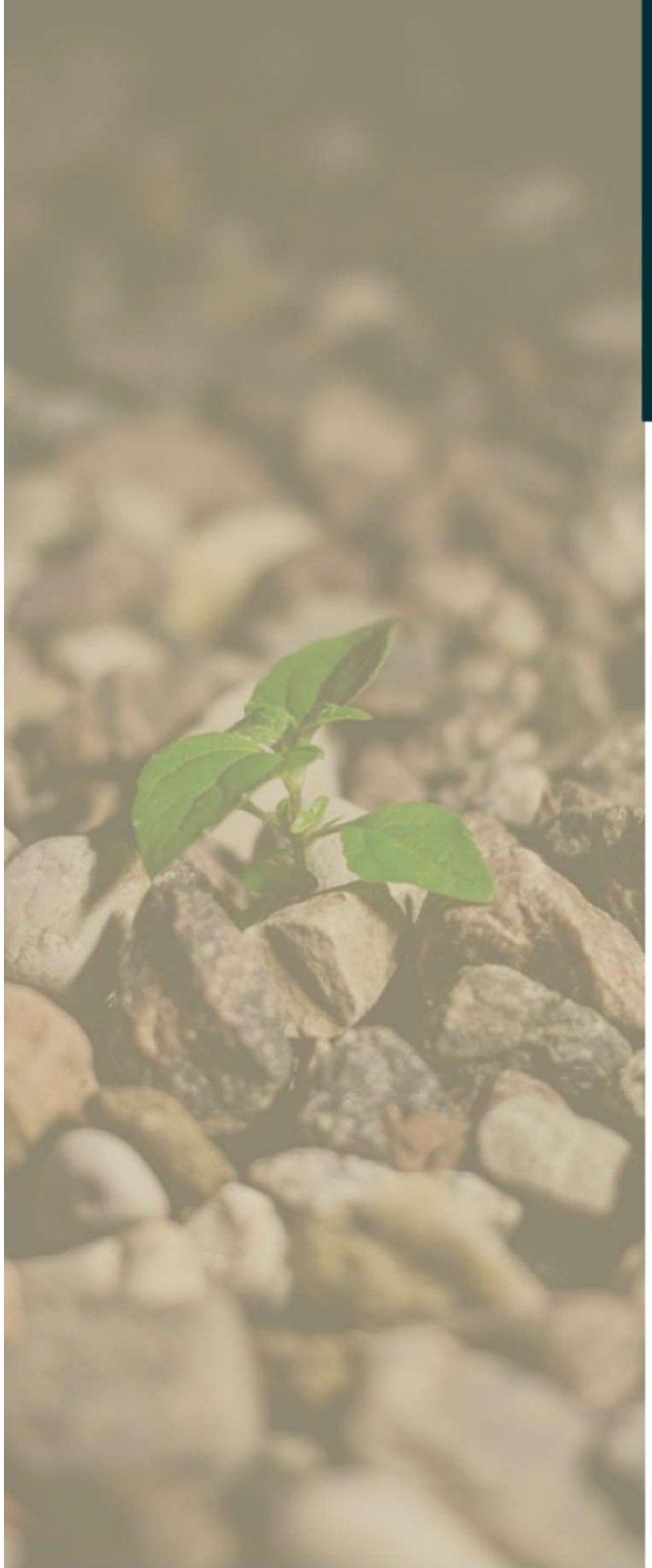


VAD KAN JAG *INTE* PÅVERKA?

1. Skadegrad och utbredning
2. Ålder
3. Kön
4. Tidigare funktionsnivå
5. Medicinsk historia



VAD KAN JAG PÅVERKA?

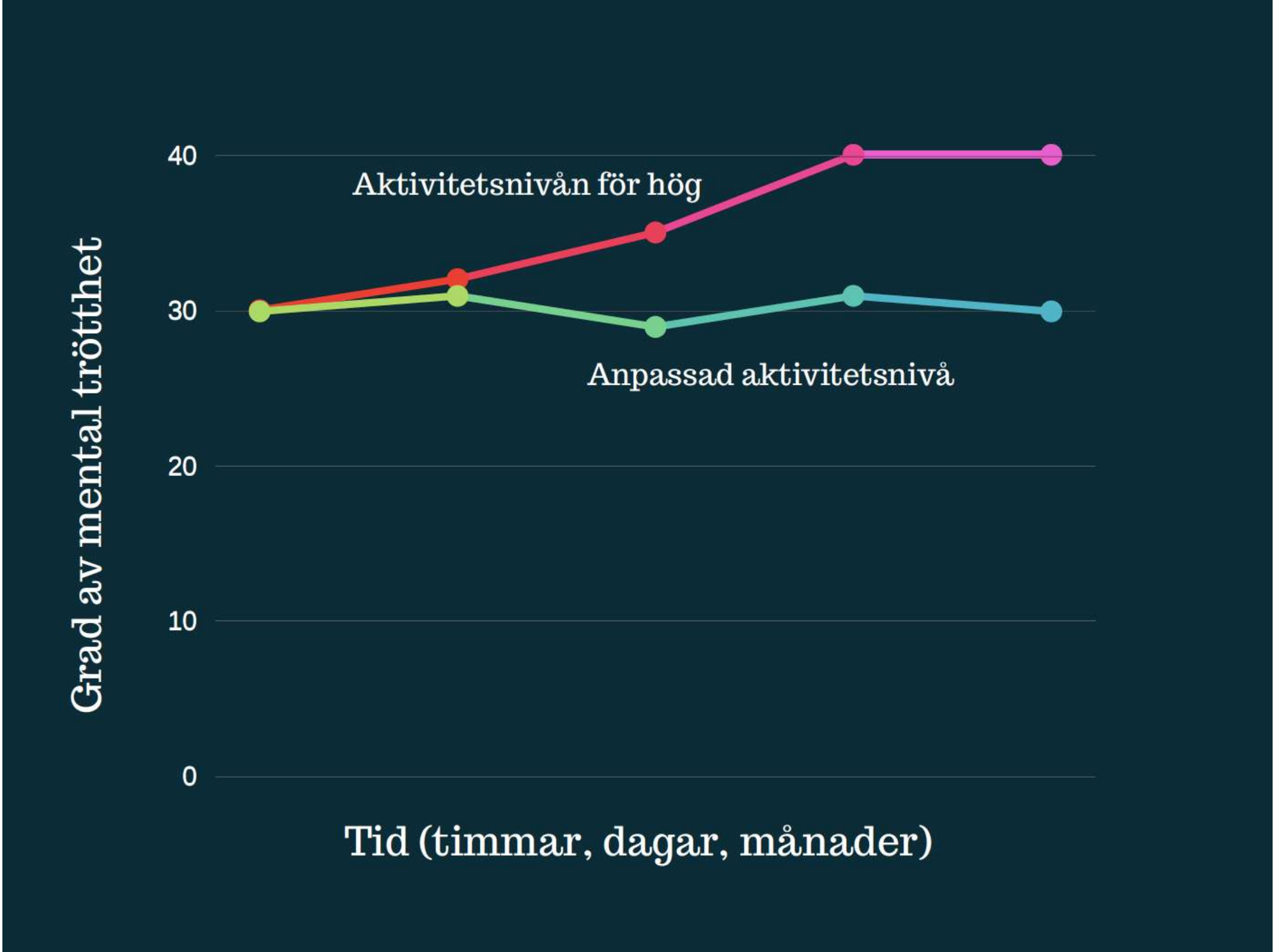
1. Andra sjukdomar och psykologiska tillstånd
2. Sömnrubbningar
3. Smärta
4. Mediciner
5. Kondition

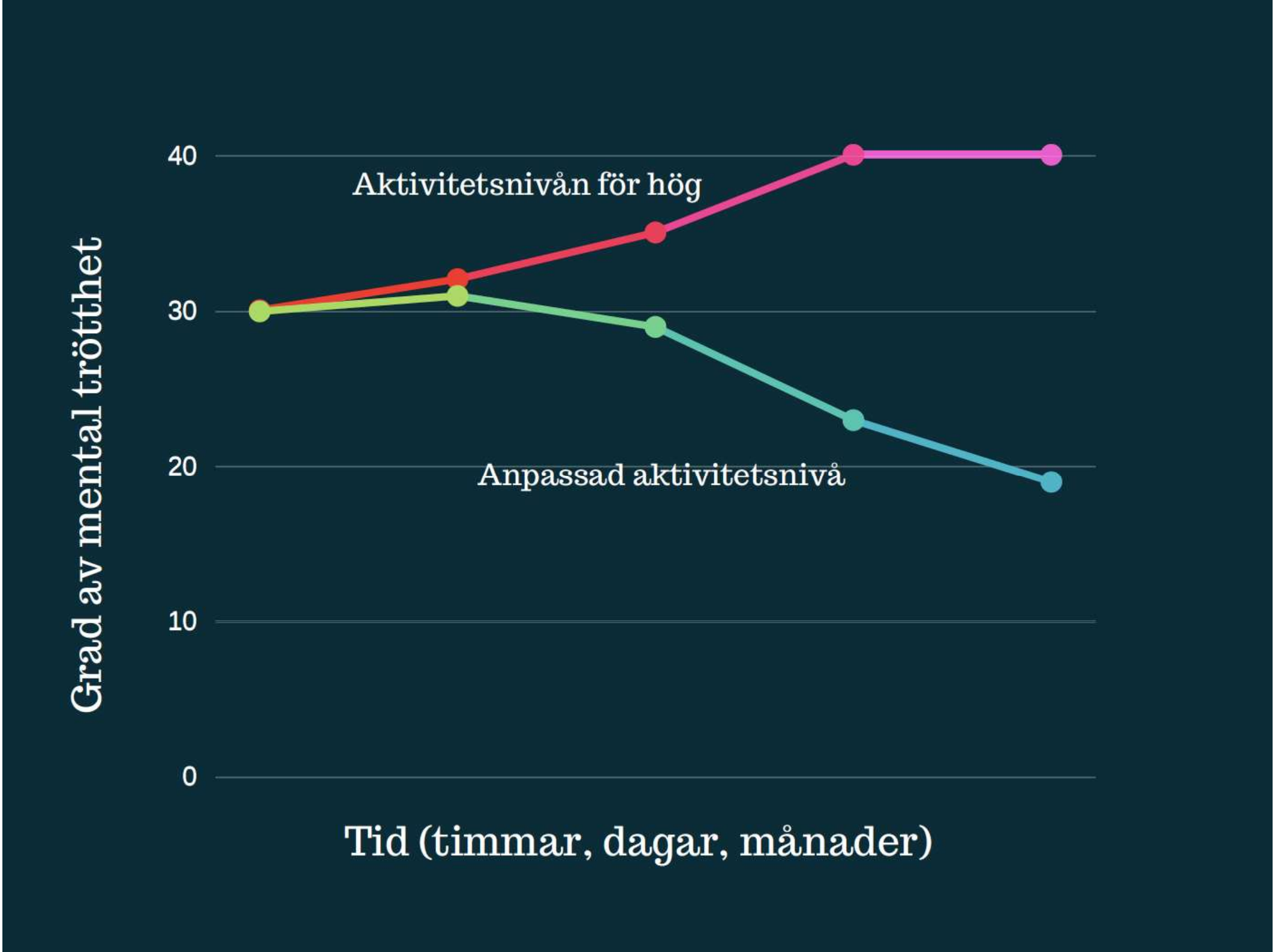
DU SJÄLV

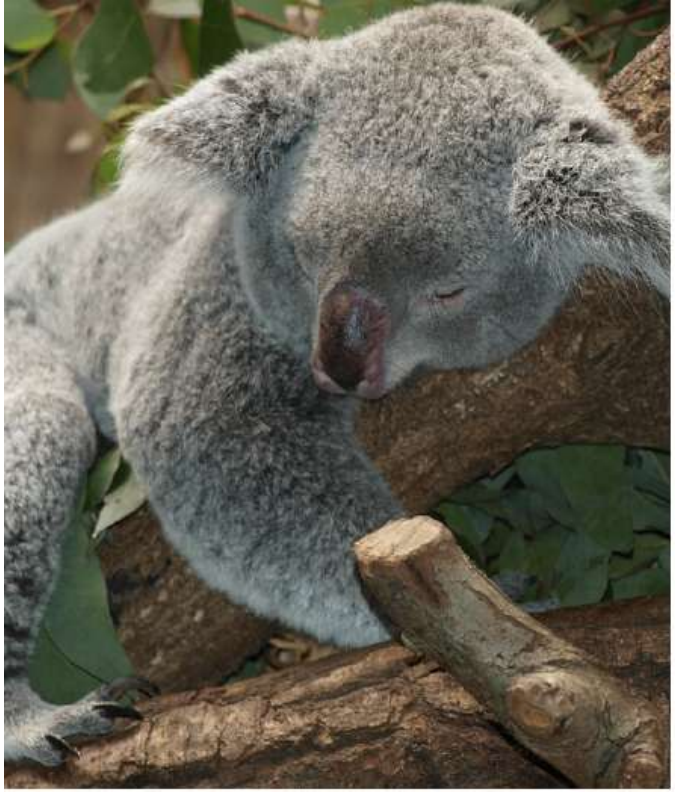
DET ABSOLUT VIKTIGASTE!


VILKA GORILLOR FINNS I DIN VARDAG?

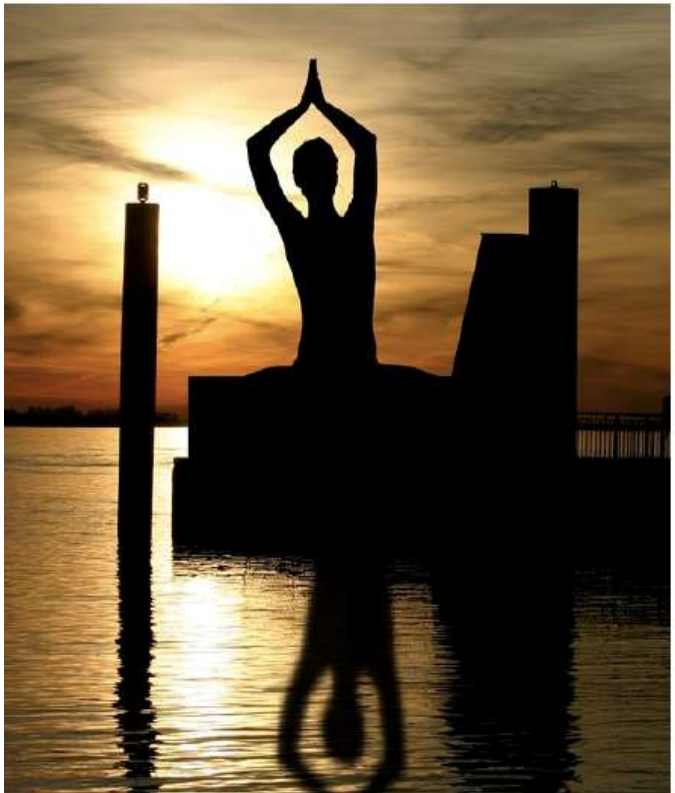
BALANS I AKTIVITET OCH VILA


40
30
20
10
0
Aktivitetsnivån för hög
Anpassad aktivitetsnivå
Grad av mental trötthet
Tid (timmar, dagar, månader)


40
30
20
10
0
Aktivitetsnivån för hög
Anpassad aktivitetsnivå
Grad av mental trötthet
Tid (timmar, dagar, månader)



VILA?

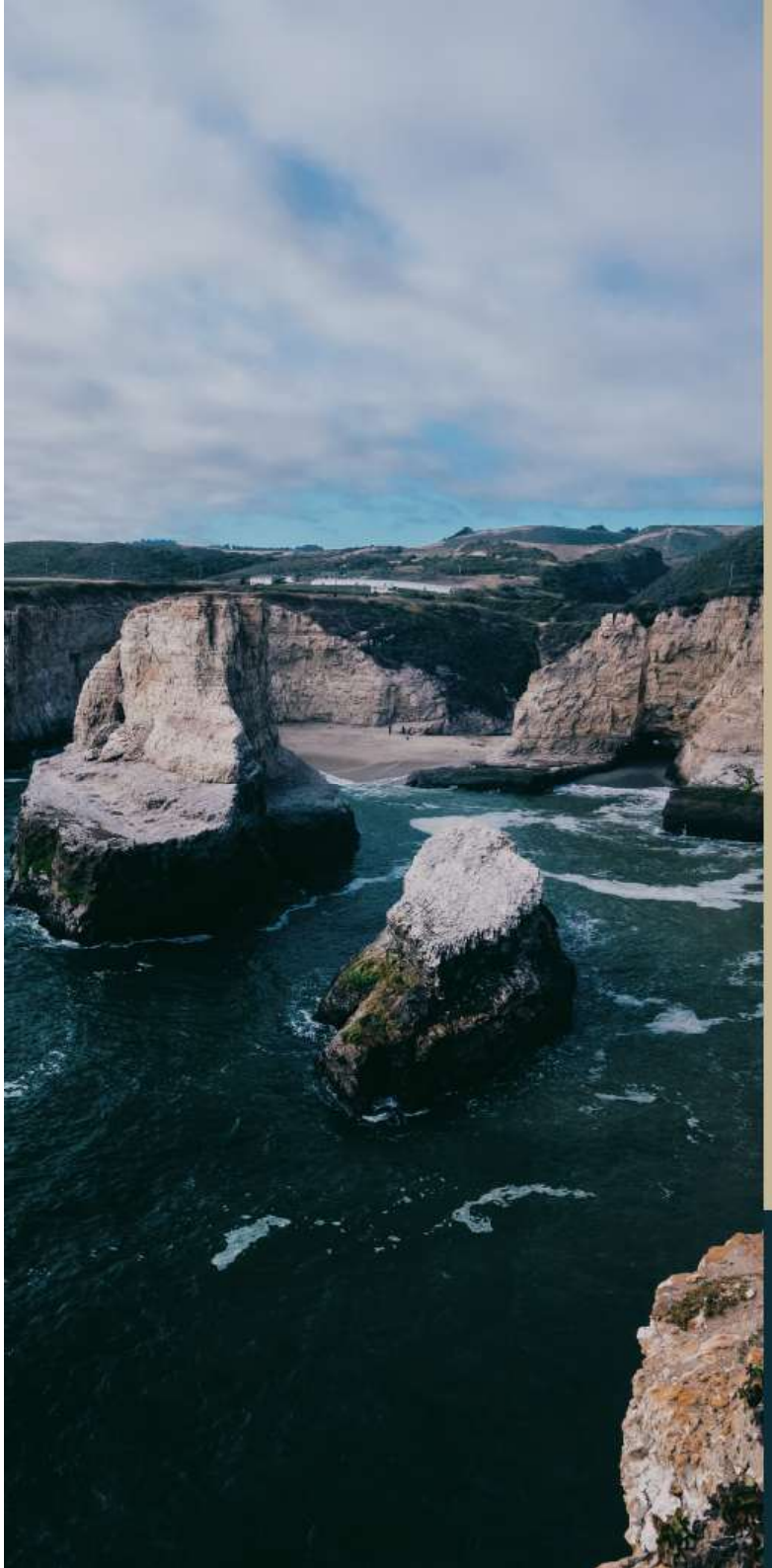



HJÄRNVILA!

ATT INTE GLÖMMA AKTIVITETER

- Må bra!
- Hjärnans aktivering
- Men tänk på:
  - Undvik stress!
  - En sak i taget!
  - Ofta korta pauser


STOP



GE MIG SINNESRO ATT ACCEPTERA DET JAG INTE KAN FÖRÄNDRA,

MOD ATT FÖRÄNDRA DET JAG KAN,

OCH VISHET ATT SE SKILLNADEN.

Tack!