



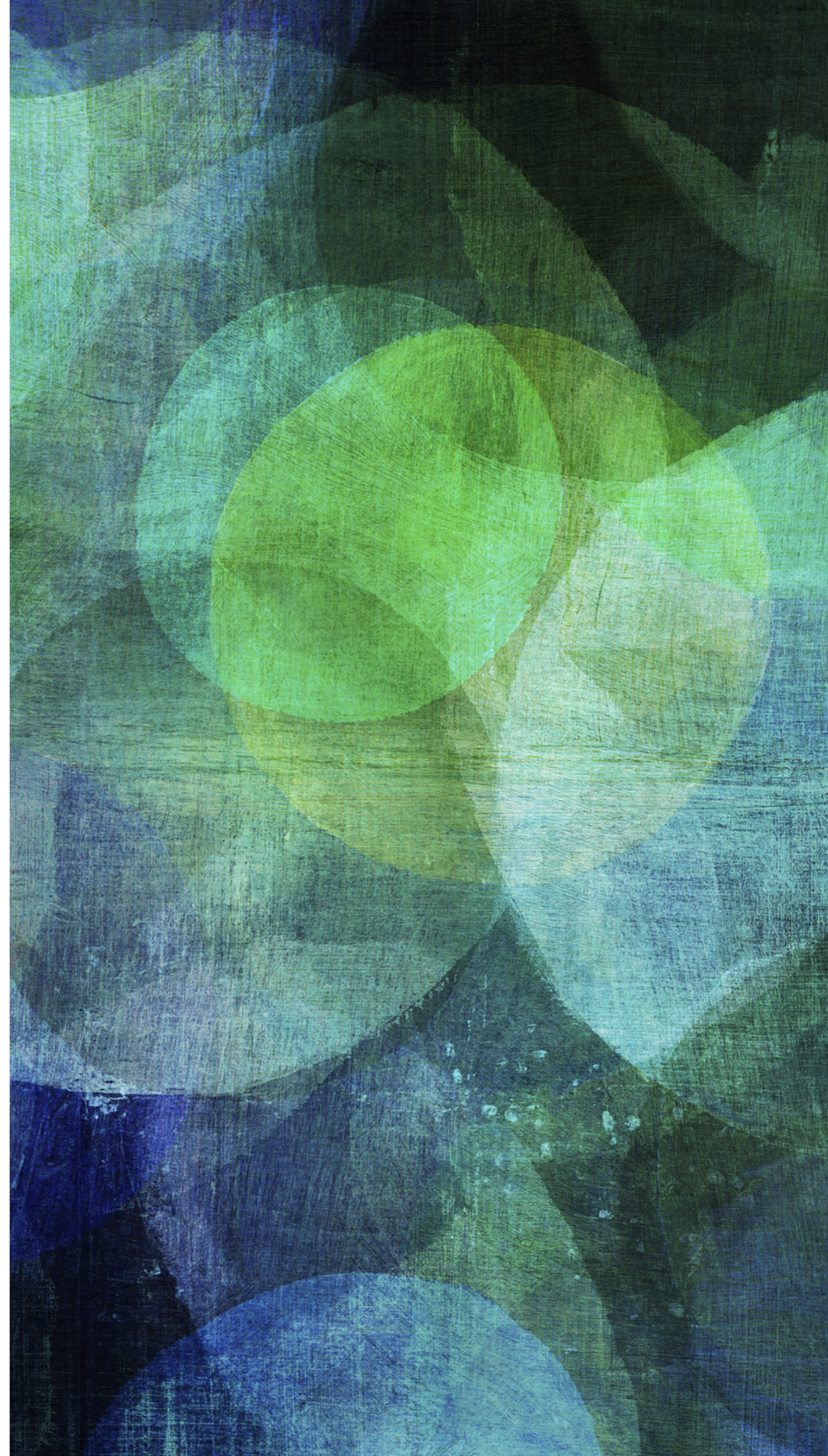
ADDRESSING THE HIDDEN IADLS:

An Evidence Based Toolkit to Address Sleep Hygiene, Fatigue Management, and Leisure for Improved Patient Quality of Life



CRISTINA KLYMASZ

*MS, OTR/L, CBIS, RYT,
CLT-LANA, MSCS*



OBJECTIVES:

- Provide evidence based evaluations and interventions for sleep hygiene
- Provide evidence based evaluations and interventions for fatigue management
- Provide evidence based evaluations and interventions for leisure



**WHY IS THIS
IMPORTANT?**

DOCTORS DON'T HAVE TIME

- Average appointment is billed for 10-15 minutes (Commonwealth Fund)
- Acute care doctors: spend on average 21 minutes with patients
- Primary care doctors: spend on average 10 minutes with patients
- Average documentation, paperwork, visit management: 3.2 hours per day on average
- Porter, J., et al., (2022)

IT'S UP TO US!

SLEEP HYGIENE

Evidence, Evaluation, and Interventions

EVIDENCE

Li, H., et al., (2023)

- Population based cohort
- Evaluated risk of mortality with sleep hygiene patterns
- 8% of 172,321 (subject pool size) = death attributed to poor sleep quality
- Low risk sleep patterns: 4.7+ years of life for men
- Low risk sleep patterns: 2.4+ years of life for women



EVALUATIONS

- Pittsburgh Sleep Quality Index (PSQI)
 - Most prevalent used
 - Sleep efficiency, room set-up, medication use, daytime participation, sleep quality, sleep hygiene
- Sleep Quality Scale (SQS)
 - General
 - Sleep satisfaction, daytime participation, sleep quality
- Epworth Sleepiness Scale
 - Very General, daytime sleepiness scale
 - Rate tendency to become sleepy on 8 items

EVALUATIONS

- Parkinson's Disease Sleep Scale (PDSS)
 - Specific for sleep disturbances in Parkinson's
 - Option for all stages of Parkinson's
- Adolescent Sleep Hygiene Scale
 - Rate symptom occurrence within the past month
- Pediatric Sleep Questionnaire
 - 2-18 years old
 - Parents complete symptom questionnaire

EVIDENCE

Mcalpine, T., Mullen, B., & Clarke, P. J. F., (2023)

- Met-analysis of behaviors impacting sleep and consensus with the current sleep scales
- 4-factors impact quality of sleep:
 - Routine creation
 - Perseverative cognition
 - Negative emotionality
 - Physiological processes



SLEEP CYCLE

Stage 1

- “Twilight stage”
- Light stage
- Slow eye motion



Stage 2

- Eye motions slow or stop completely
- Heart rate and breathing regulate
- Body temperature drops

SLEEP CYCLE

Stage 3

- Brain waves slow
- Muscles de-activate

Stage 4

- Hormones release for growth
- Tissue repair
- Deeper sleep



SLEEP CYCLE

Stage 5

- REM sleep
- 90 minute intervals
- Muscles paralyzed
- Dreaming
- Rapid eye movement
- Memories are stored



**Stage 4+5: Several cycles prior to awakening*

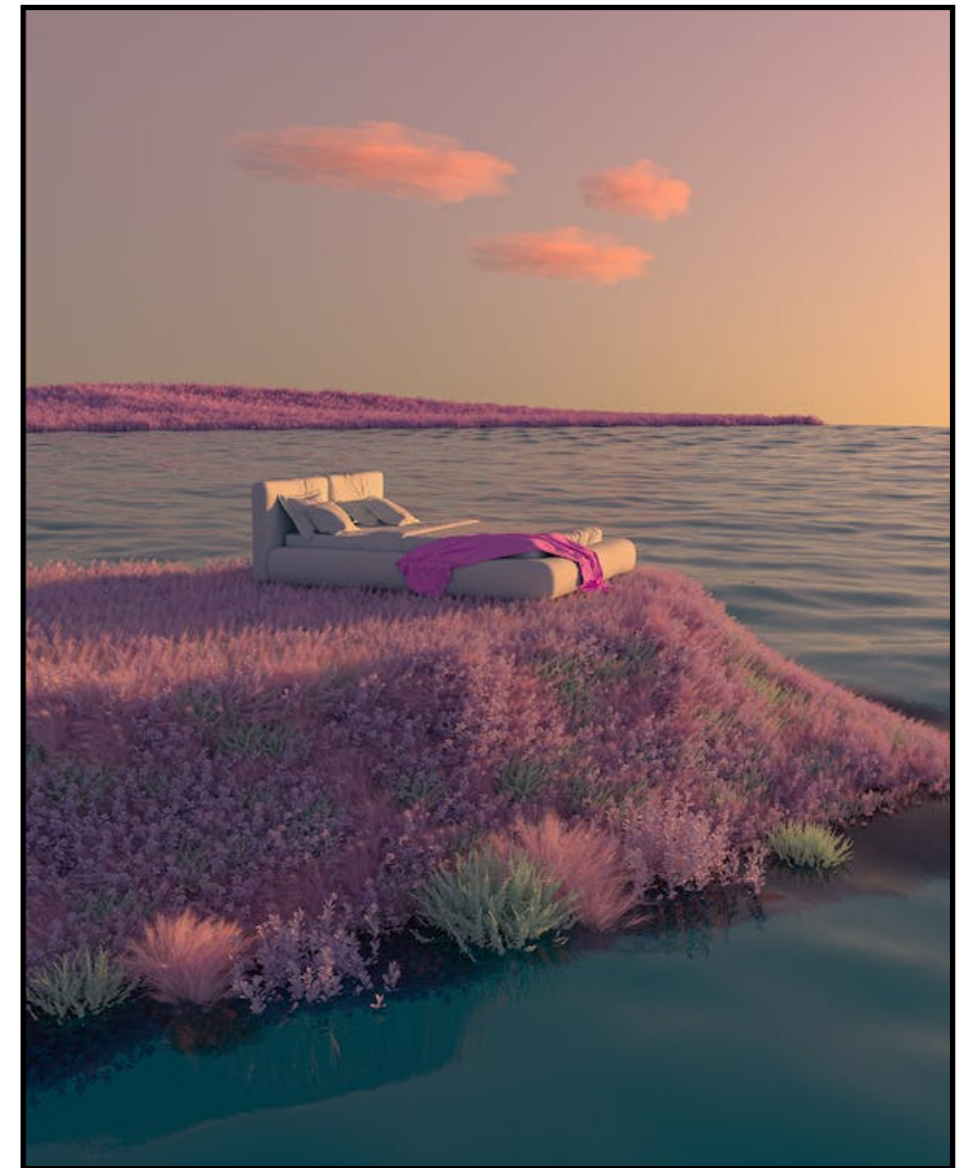
SLEEP INTERVENTIONS

- Best practice to provide a sleep questionnaire
- Education on sleep cycle
- Generation of a sleep schedule/routine
- Determine best bed/wake times
- Add bed/wake times into sleep routine
- Education on importance of adherence



SLEEP ROUTINE

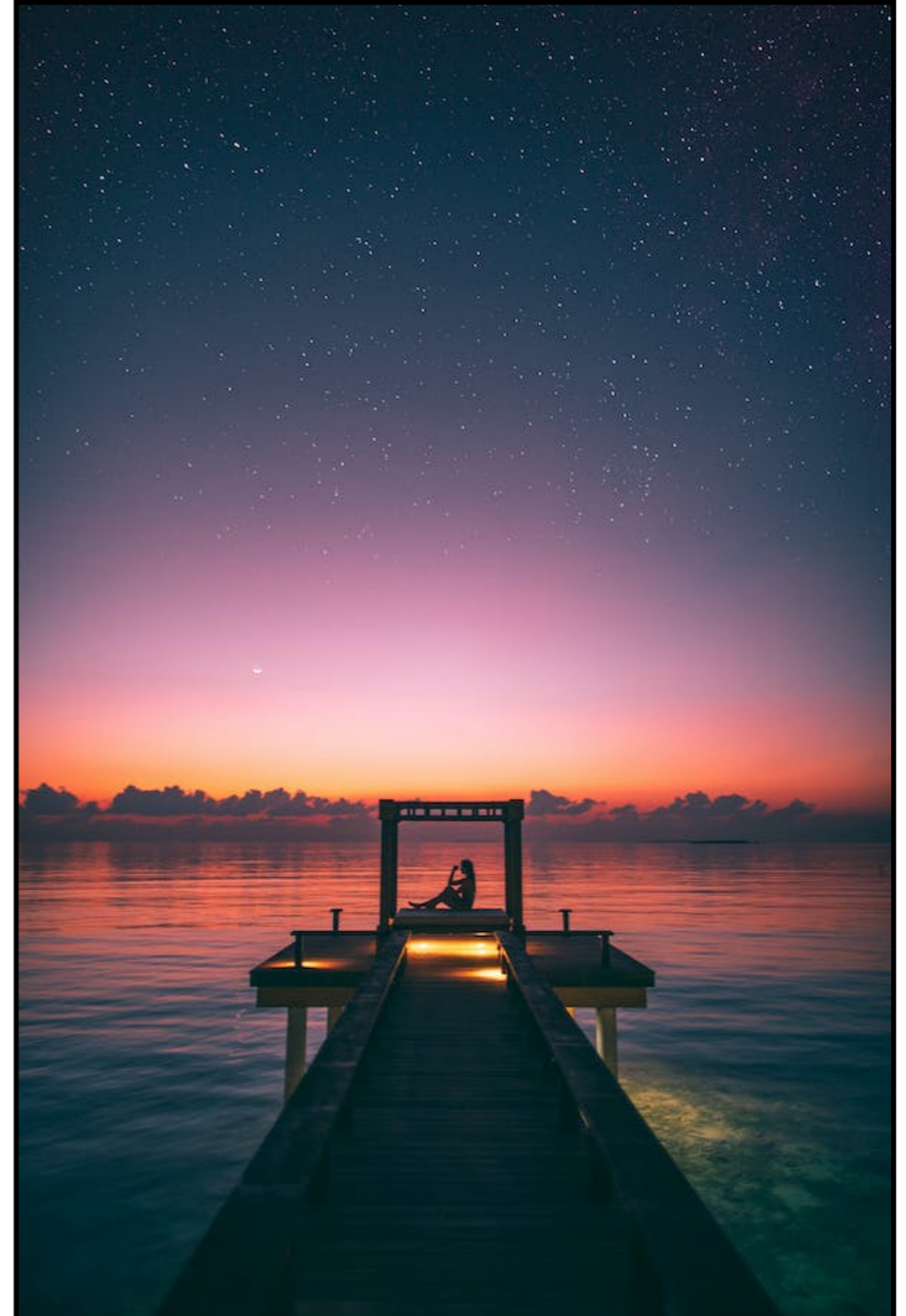
- Initiated 1 hour prior to bed time
- Should take about 1 hour to perform
- Encompasses grooming routine
- Encompasses changing into pajamas
- Should refrain from blue light
- If time after grooming/changing:
 - Patient performs relaxing tasks
- Should be the same each night



SLEEP ROUTINE

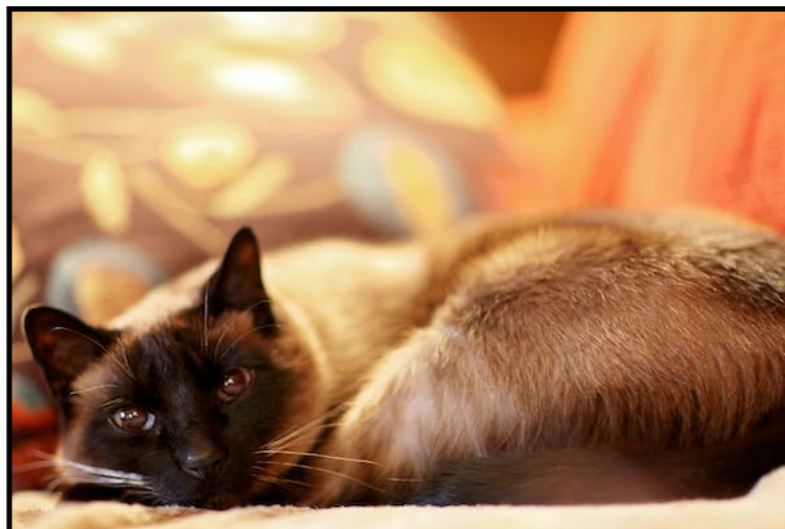
Relaxing Addition Suggestions

- Warm shower/bath
- Reading
- Stretching
- Meditating
- Praying
- Listening to music or a podcast
- Gentle yoga



WHAT IF I WAKE UP?

- Good sign if patient can return to sleep when awakened for restroom use
- After 20 minutes of non-sleep, get up
 - Change rooms
 - Participate in relaxing tasks
- Consult urologist if urinary issues are a barrier
- Consult doctor if issues continue despite all changes



YOGA FOR SLEEP



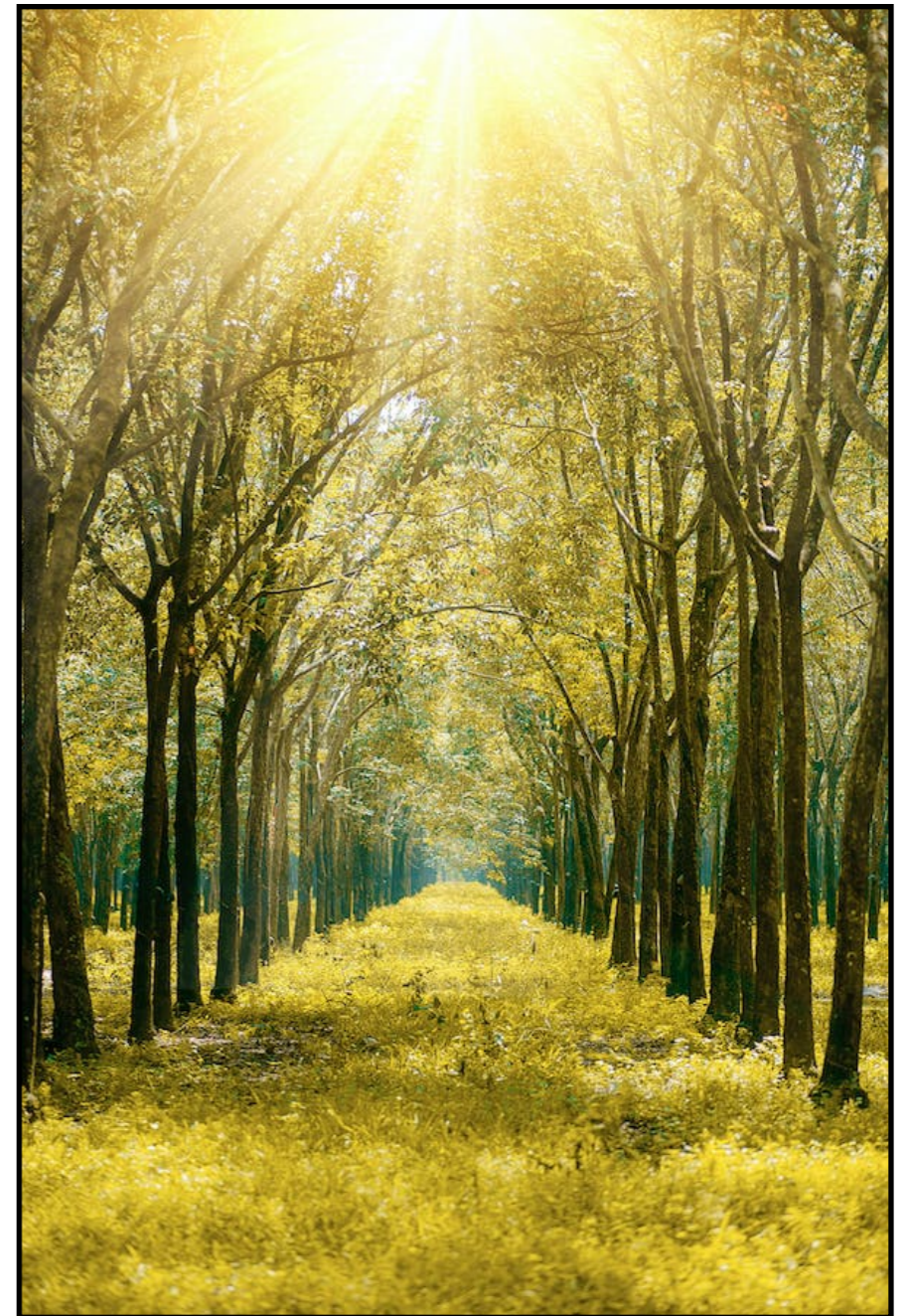
ENVIRONMENTAL CHANGES

- Dim the lights 30-60 minutes prior to sleep
- Thermostat: 65 degrees Fahrenheit
- Essential oil use: Lavender, chamomile, orange
- Make sure bedding and mattress are comfortable
- Block out any extraneous light and sounds



DAILY CHANGES

- Exercise
- Vitamin D
- Reduce caffeine intake afternoon-night
- Stop fluids after dinner
- Refrain from eating late
- Use bed for only sleeping
- Address anxiety
- Refrain from napping



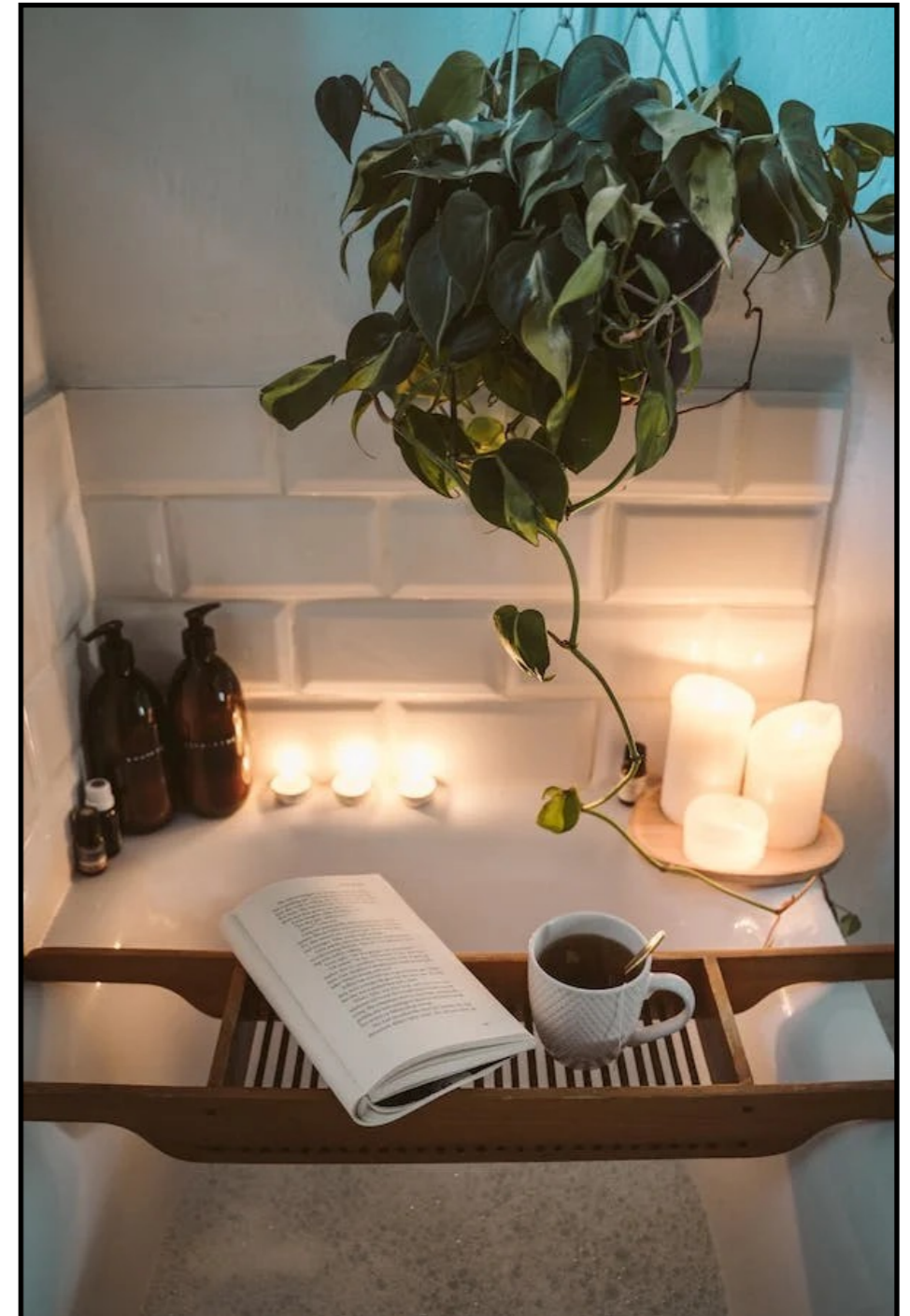
DIET/NUTRITION CHANGES

- Tart cherry juice, (*Pigeon, W.R., et al., 2010*)
- Herbal tea
- Sleep medication 1 hour prior to sleep (before sleep routine)
- Melatonin- doctor assessment prior recommended



POSITIVE THOUGHTS/ANXIETY/MIND WANDERING MANAGEMENT

- Notebook next to bed
- Journaling prior to bed
- Meditation/praying
- Anxiety management via medication
- Positive affirmation
- Gratitude journals
- Referral to psychology
- Essential oils: Sandalwood, rose



BILLING AND CODING

97535

- Education on sleep and management
- Education on techniques
- Sleep schedule generation

97530

- Stretching or motions to assist with feeling sleepy
- Education on referrals
- Sleep schedule generation

FATIGUE MANAGEMENT

Evidence, Evaluation, and Treatment

EVIDENCE

Poole, J.L., et al., (2023)

- Prevalence: 50-90% in cancer, autoimmune, and neurological disorders
- Pervasive in COVID and long-hauler COVID
- Causes:
 - Inflammation
 - Oxidative stress
 - HPA axis and stress increase
 - Lack of exercise, poor sleep, poor nutrition, loneliness
- Significant decline in ADLs due to fatigue

EVIDENCE

Blackwell, S., et al., (2022)

- Assess health professional intervention/assessment of fatigue
- Australian study
- 17% use fatigue assessments
- Energy conservation, education, exercise- most used interventions
- Sleep hygiene, nutrition, task adaption, psychology- least used interventions
- Recommendation: fatigue assessment use

EVALUATION

- Fatigue Severity Scale (FSS)
 - Evaluates barrier of fatigue in participation
 - Score of 36 or higher = Significant impact in ADLs
- Modified Fatigue Impact Scale (MFIS)
 - Evaluates physical, emotional, and cognitive fatigue
 - Best practice for Multiple Sclerosis
- Fatigue Assessment Scale (FAS)
 - Evaluates physical and mental fatigue
 - Chronic fatigue

EVALUATION

- Parkinson's Disease Fatigue Scale (PDFS)
 - <https://www.parkinsons.org.uk/professionals/resources/parkinsons-disease-fatigue-scale>
 - Identifies lifestyle changes
- Cancer Fatigue Scale (CFS)
- Fatigue PDQ: Cancer
- Fatigue Impact Scale
 - Cognitive, psychosocial, and physical fatigue

DAILY SCHEDULE

- Encompasses energy conservation and monitoring energy
- Written schedule vital
- Hourly structured schedule
- Morning, afternoon, night
- Schedule labor intensive tasks during time of day with most energy
- Schedule tasks that take are more routine during time of day with least energy
- Schedule rest breaks and eating reminders

SAMPLE SCHEDULE

Morning

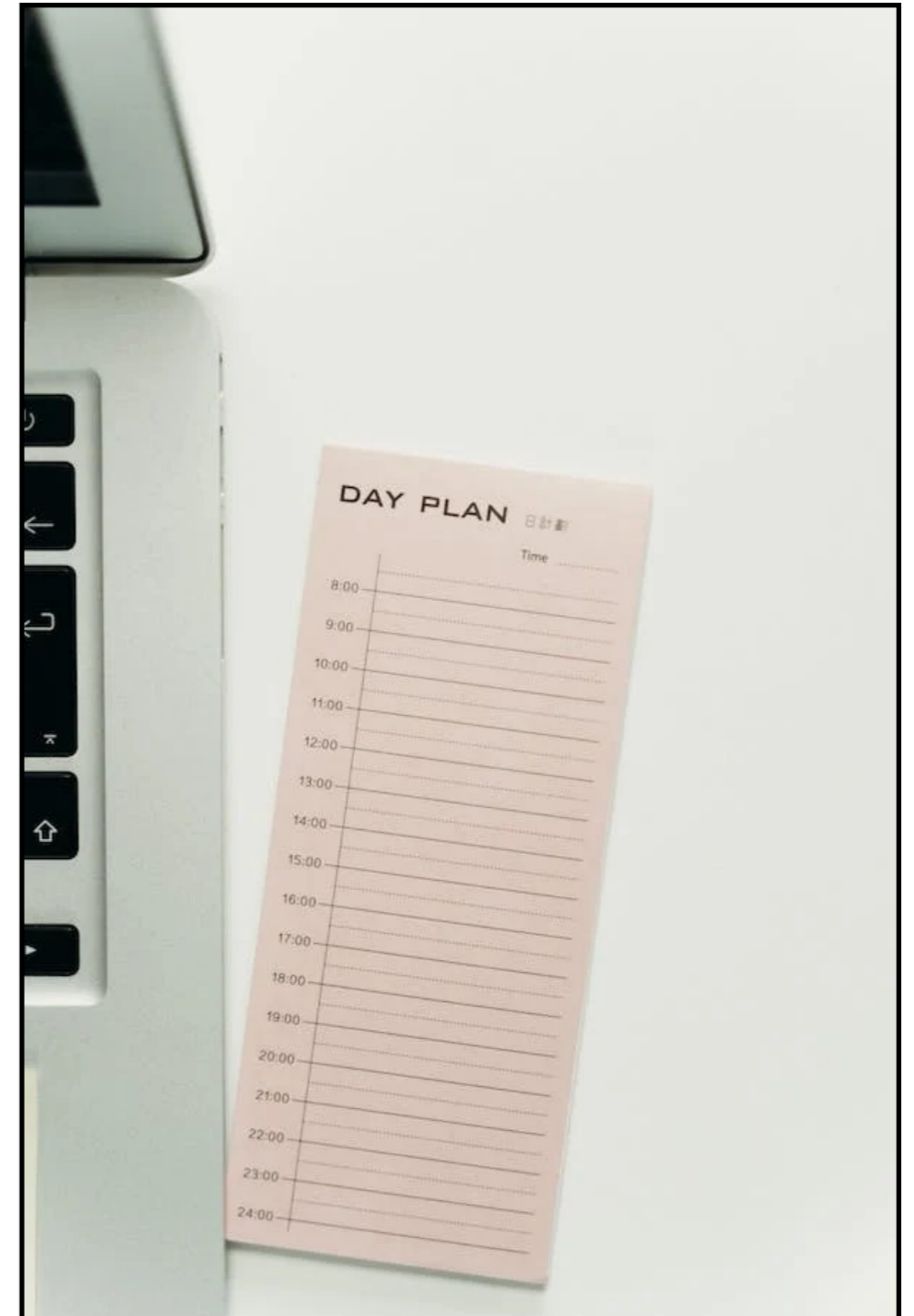
- Gratitude journal
- Yoga
- Check emails- protein snack
- Call insurance

Afternoon

- Pay bills- rest break every hour
- Take a walk
- Do at least 1 load of laundry- protein snack

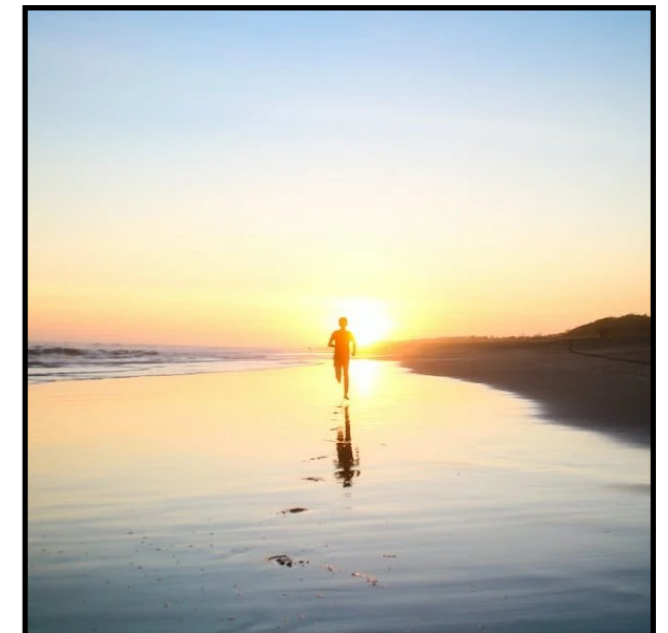
Night

- Cook dinner
- Call mom
- Read 1 chapter of book



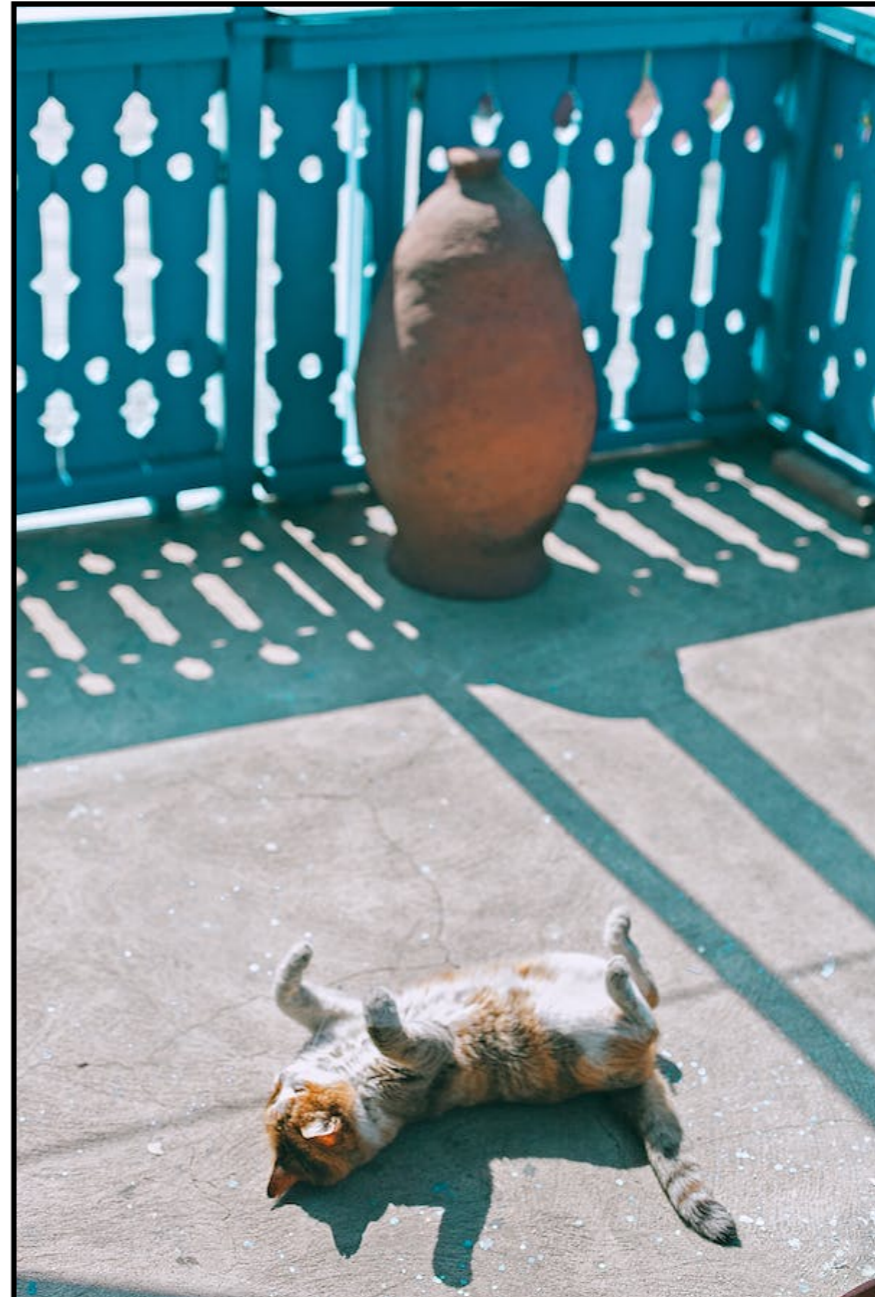
INTERVENTION

- Education
- Energy conservation
- Protein snacking every 3 hours
- Essential oil use: peppermint, spearmint, lemon, rosemary
- Exercise 3-5 days/week
- Hydration (6-8 glasses of pure water/daily)
- Rest break every hour (5-15 minutes)

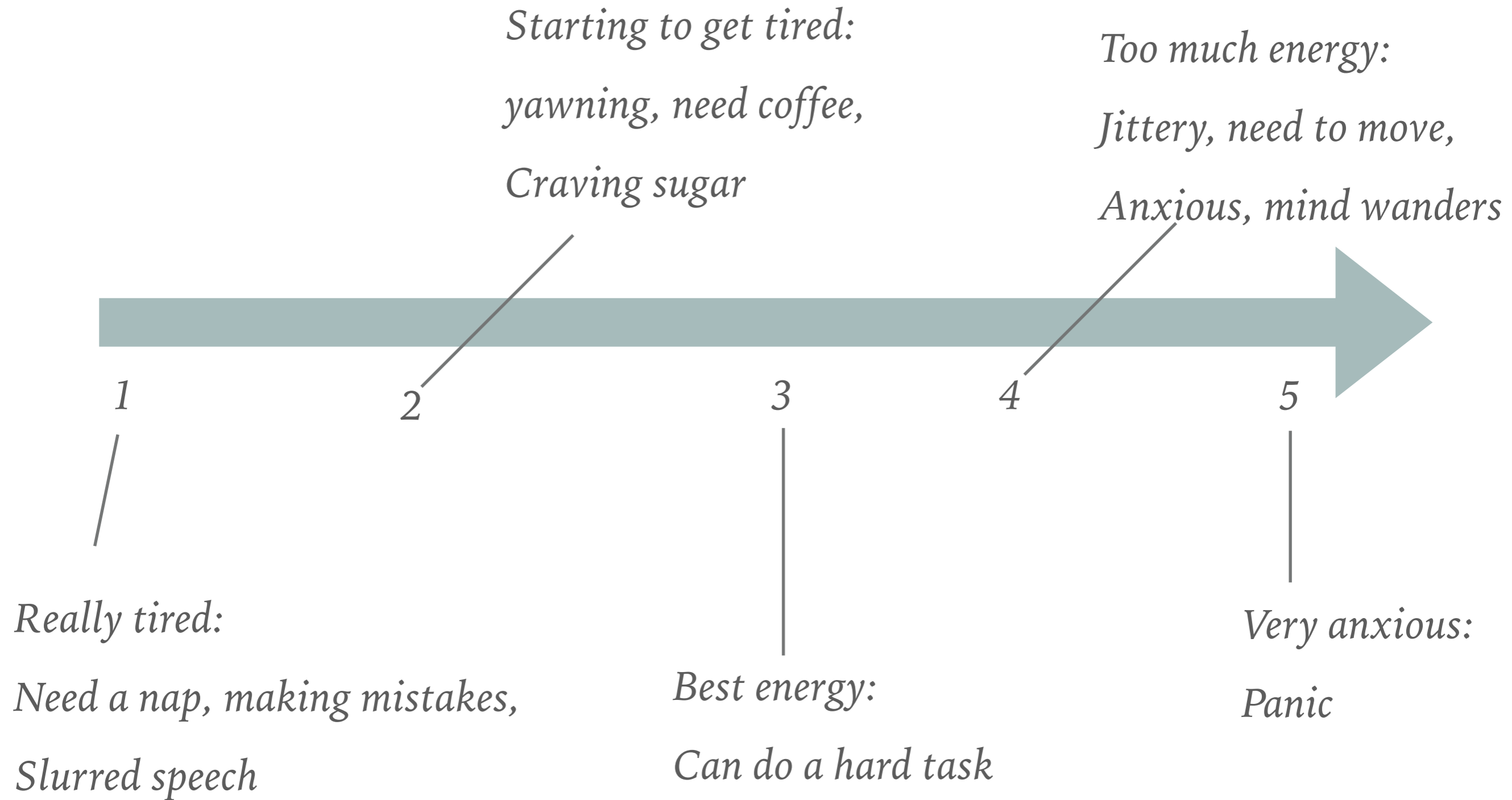


WHAT'S A REST BREAK?

- Non-physical
- Little mental expenditure
- Time to add energy
- Snack, drink coffee/tea
- Sitting outside
- Meditation/praying
- Diaphragmatic breathing
- Spend time with pet



HOW DOES YOUR ENGINE RUN?



ENERGY EXPENDITURE

- Spoon theory
- Cash theory
- Motivational interviewing to ID preferences in energy
- Advocacy education
- Recruiting assistance



YOGA FOR FATIGUE



BILLING

97535

- Education on fatigue and management
- Trial of techniques
- Protein snacking/energy expenditure

97530

- Trial of techniques
- Education on management



LEISURE

Evaluation, Evidence, and Treatment

EVIDENCE

Takiguchi, Y., et al., (2022)

- Participation in diverse/multiple leisure activities:
 - Increases resilience
 - Improves well being
 - Improves mental health
- Evaluated resilience and depressive symptoms from start of COVID to end of the pandemic
 - Leisure activities decreased during COVID
 - Less depressive symptoms in those with established leisure activities at start of pandemic

EVIDENCE

Chen, S-W., & Chippendale, T. (2018)

- Leisure is a vital part of occupational therapy intervention
- Advocates for goal generation
- Only occupational therapy addresses leisure



EVALUATION

- Activity Card Sort (ACS)
- Leisure inventory
 - Leisure Valuation Assessment Tool for the Elderly (LVAT-E)
 - Children's Leisure Assessment Scale (ages 10-18)
 - Leisure Interest Assessment
 - Moho Interest Checklist
 - <https://moho-irm.uic.edu/products.aspx?type=free>
 - Interest checklists

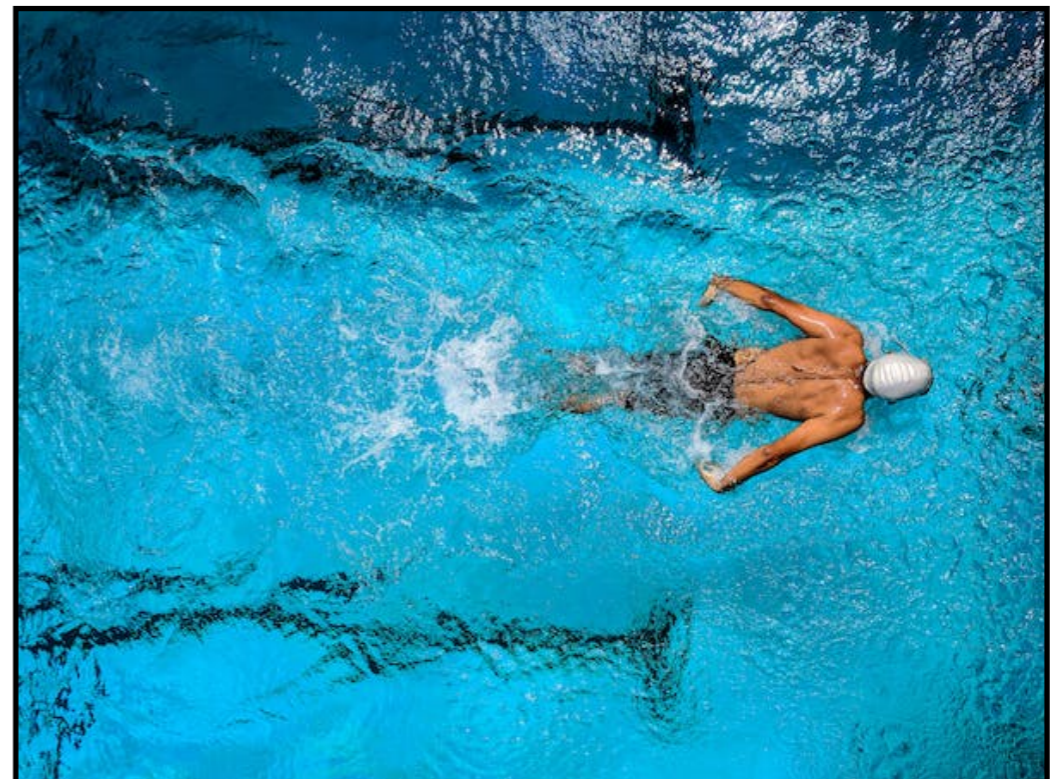
TREATMENT

- Motivational interviewing
- Devise a list of interests
- ID barriers to performing interests
 - Problem solve how to return to interests in some capacity
- Develop a plan and schedule for returning to interests
 - Homework?
- Caregiver/family involvement



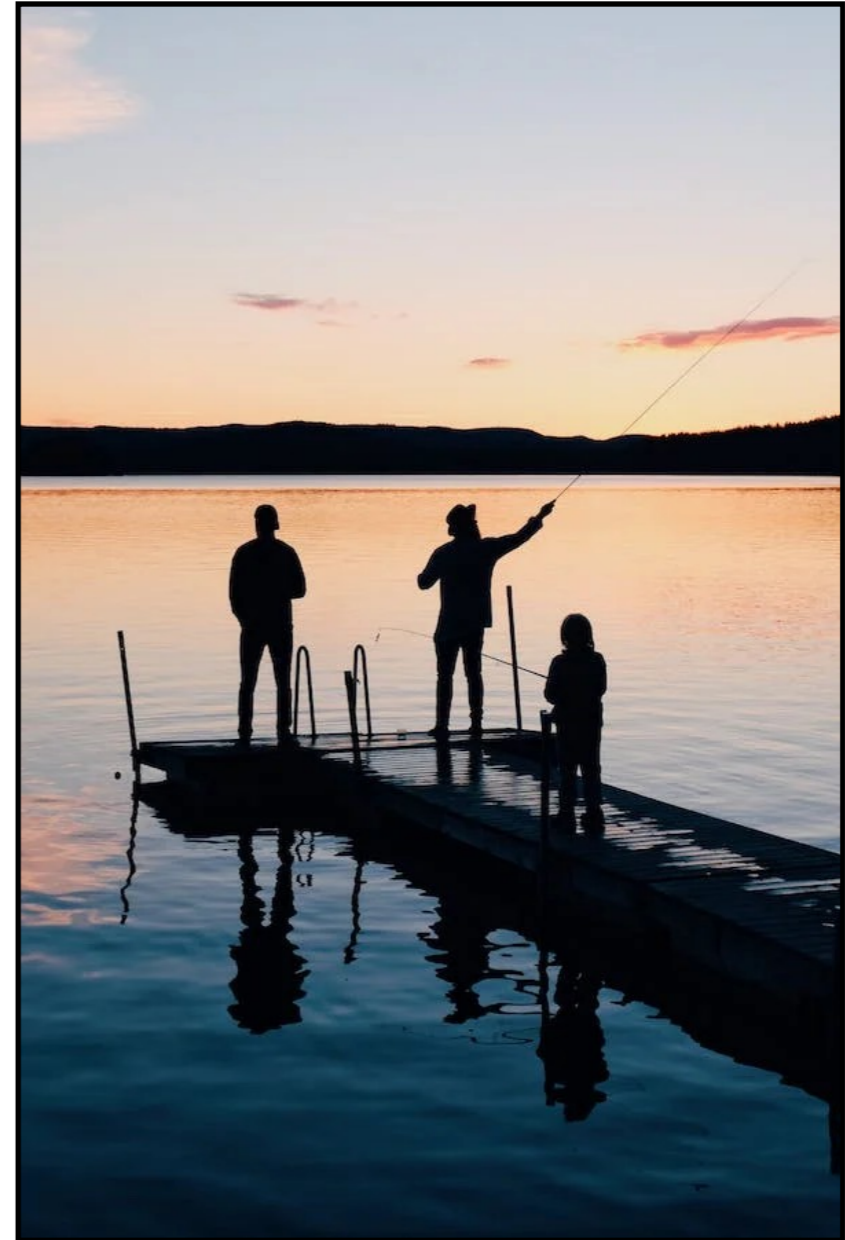
CONQUERING BARRIERS

- Positive reinforcement
- Trial or simulate leisure during sessions
- Any physical barriers?
 - Address this during sessions
- DME or adaptive equipment needed?
- Stuck on what to suggest?
 - YouTube it



ADAPTIVE EQUIPMENT

- Adaptive golf
 - Clubs
 - One-handed golf
 - Gear to grab tees
 - Carolina Adaptive Golf
 - Myrtle Beach, SC
 - <https://ucagnow.org/>
- Adaptive fishing
 - Rods
 - Hooks



ADAPTIVE EQUIPMENT

Cards

- Card shuffler
- Card holder



Billiards

- Cane
- Cannonaid
- Shiftybridge



ADAPTIVE SPORTS

- Drum Circle
- Cycling
- Surfing
- Kayaking
- Basketball
- Softball
- <https://www.coastaladaptivesports.org/>



SOUTH CAROLINA INFORMATION

➤ <https://www.sportsabilities.com/sc-disability-resources>

- Event information
- Adaptive equipment information
- Service dog information



➤ <https://richlandcountyrecreation.com/adaptive-recreation/>

- Children-young adult
- Wheelchair basketball
- Football
- Dances



SOUTH CAROLINA RESOURCES

- <https://adaptiveexpeditions.org/>
 - Paddlesports (adaptive)
 - Wheelchair tennis
 - Wheelchair pickle-ball
 - Cycling
 - Hand-cycling
 - Adaptive swimming
 - Charleston, SC



SOUTH CAROLINA RESOURCES

- <https://www.clemson.edu/cbshs/departments/prtm/research/adaptive-sports-recreation/index.html>
- Clemson adaptive sports
- Adaptive soccer
- Adaptive track and field
- Archery
- Air rifle
- Wheelchair basketball



SOUTH CAROLINA RESOURCES

- Roger C. Pearce Rehabilitation Hospital
 - Greenville, SC
 - Alpine skiing
 - Sled hockey
 - Fencing
 - Golf
 - Sailing
 - Tennis
 - Water skiing
 - Cycling
 - Basketball





QUESTIONS



cklymasz@gmail.com

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