The Happy Brain

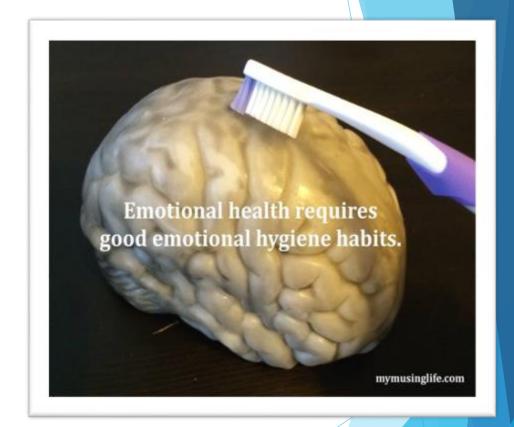
An Review of Mental Hygiene and Its Importance in Supporting Wellbeing

Presented by: Guillaume Tremblay, Nurse Practitioner

November 13th 2025

Let's Talk Mental Hygiene

Hygiene can be defined as a science of the establishment and maintenance of health or as conditions or practices conducive to health (Merriam-Webster, 2018).



Official Public Health Recommendations

Oral Health

- Brush 2 minutes twice daily.(CDA)

Sleep Hygiene

- Target 7-8 hours for the average person with no nicotine, alcohol, or caffeine prior to sleep. (CSS)

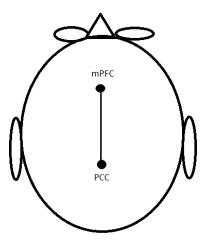
Physical Health

- Target 150 minutes per week of moderate to vigorous physical activity. (WHO)

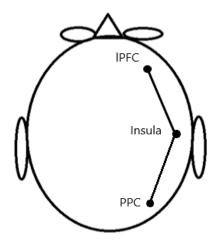
Mental Health - ???



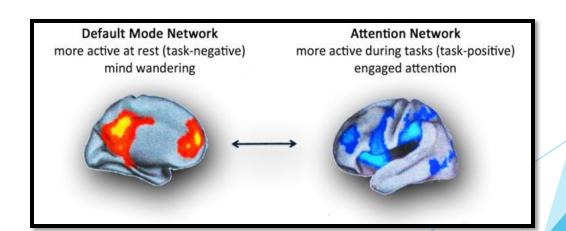
Default Mode Network (DMN) vs. Task Positive Network (TPN)



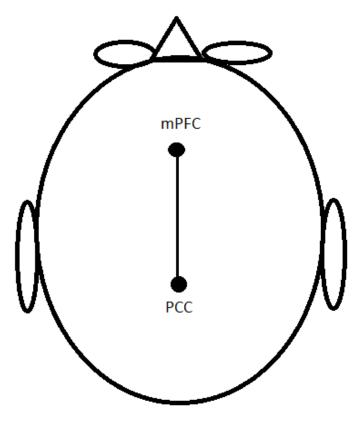
mPFC - Medial Prefrontal Cortex PCC - Posterior Cingulate Cortex



IPFC - Lateral Pre-Frontal Cortex PPC - Posterior Parietal Cortex



The DMN



mPFC - Medial Prefrontal Cortex PCC - Posterior Cingulate Cortex

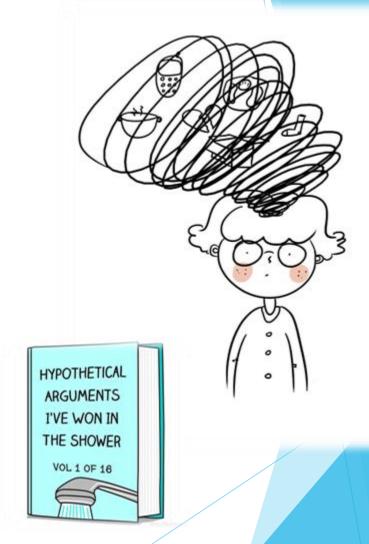


Andrews-Hanna et al., 2010

The DMN

Cognitive Patterns Associated to DMN Connectivity

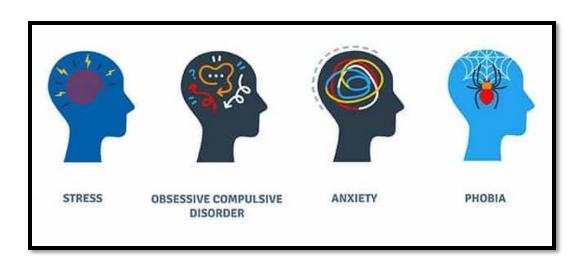
- -Rumination (Spreng & Grady, 2009)
- -Self-Referential Internal Narrative (me/my/l) (Berman et al., 2011)
- -Mind wandering (Mason et al., 2007)
- Non-practical past/future thoughts
- -Blah, Blah, Blah...
- -Hamster running non-stop



DMN

Hyperconnectivity of this network has been associated with:

- Major Depressive Disorder (Sheline et al. 2009)
- Elevated Anxiety Levels (Coutinho et al., 2016)
- Various other mental health disorders such as PTSD



DMN and Happiness

- Reported happiness levels have been demonstrated to be inversely correlated with DMN connectivity (Luo et al.,2016)
- Others have found that a higher 'quality of life' is related to reduced DMN connectivity (Kraft et al.,2018)

One possible interpretation:

a quieter brain = a happier brain



Psychological Resilience and the DMN

- Psychological resilience is the process by which an organism adapts to an environment in the face of demanding and stressful stimuli, and can be thought of as "bouncing back" from a difficult experience. (Miyagi et al., 2020)
- A malleable trait.
- Psychological Resilience has been shown to by inversely correlated with default mode network connectivity. (Hemington et al., 2018)
- A quieter brain = a more resilient brain



Question?

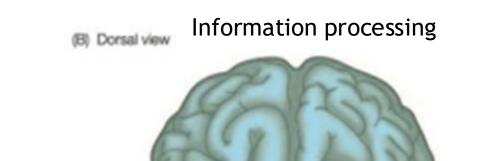
Have you ever noticed the hamster running in your mind? (non-stop thinking, voice in your head)





Many of us share the same challenge... EXCESSIVE UNNECESSARY THINKING!!! Too much Blah Blah...

Free some brain bandwidth!



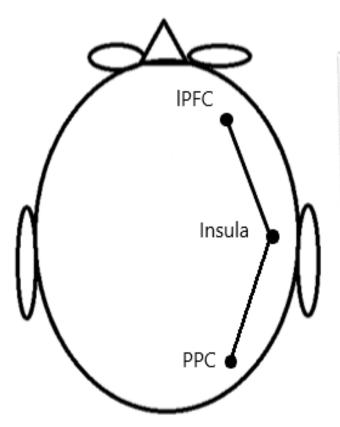
Emotion regulation

Mind wandering necessitates resource competition (Smallwood, 2010)

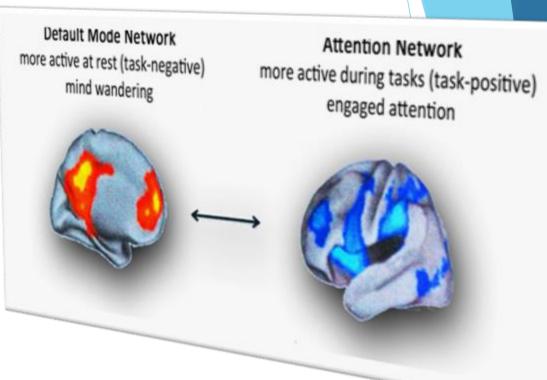
Executive functioning/
Problem solving

Decision making

Task Positive Network (TPN)



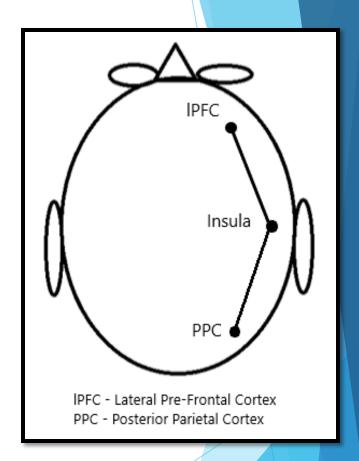
IPFC - Lateral Pre-Frontal Cortex PPC - Posterior Parietal Cortex



Delaveau et al., 2017

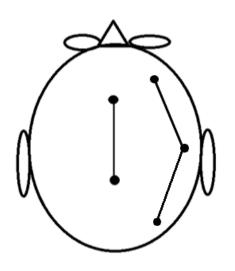
The TPN

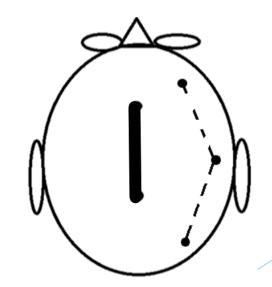
- Also referred to as Central-Executive Network (Wotruba et al.,2013)
- Highly involved in goal-oriented activity
- Associated with a focused state

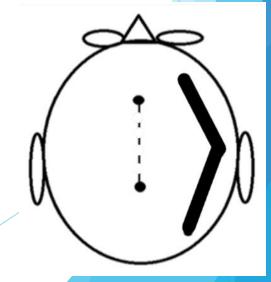


DMN vs. TPN

- These networks 'compete' for brain activity
- Researchers have described these networks as 'anticorrelated' (Wotruba, 2013)
- Depressive states have been characterized as a dominance of the DMN over the TPN (Marchetti et al., 2012)







Mental Training

- Experienced meditators have demonstrated reduced DMN activity 'at rest/not meditating' compared to novice meditators (Brewer et al., 2011)
- DMN activity has been shown to be reduced when comparing pre/post mindfulness training program (Farb et al., 2007)
- As little as 6-12 minutes a day of various meditation practices has demonstrated beneficial effects on the brain (Moyer et al., 2011)



Gary Weber (30 000+ hours of meditation practice)

The Case for Mental Hygiene

- We, as modern day people, are generally prone to excessive unnecessary thinking resulting in high DMN connectivity
- A quieter brain = a happier brain
- In order to <u>BE</u> a healthy organization, we must ourselves practice good mental hygiene
- Mental Hygiene is a universal principle

Article

Mental Hygiene: What It Is, Implications, and Future Directions

Journal of Prevention and Health Promotion I-29

© The Author(s) 2021 Article reuse guidelines: sagepub.com/journals-permissions DOI: 10.1177/26320770211000376 journals.sagepub.com/home/prv

(\$)SAGE

Guillaume Tremblay D, Nicole C. Rodrigues, and Sanjiv Gulati

We need to move from selectively using 'tricks' and 'techniques' to embedding daily mental hygiene practices into one's lifestyle

Mental Hygiene Practices (16 available in the toolkit)

- Breathing Stillness (10-20 seconds of focused breathing)
- Any focused breathing, pushing the abdomen out as your inhale is healthy for you.
- ► Thinking Through vs. Thinking about (5 minutes on paper
- TaSaNaMa Chant
- Coordinating breathing and walking
- ► Gratitude Exercises (Write and feel three new things daily you are grateful for)
- Positive Psychology Exercises (Write down and deliberately think about things you like about yourself)
- Journaling (write whatever comes to you for 5 minutes, finish up with 2-3 positive things.
- Pro-Social Prayer (wishing others well, being humble to the mystery of that which is greater than our individuality)
- Thought-Flow Charts (Identify your feeling, identify some of your thoughts, question them "is this thought absolutely true"
- Nature Exposure (connect with nature, elicit a sense of AWE)
- Guided meditation

https://www.youtube.com/watch?v=79r4jlECyTs

https://www.youtube.com/watch?v=9PozgygMY4s

https://www.youtube.com/watch?v=SOf6EXR3qlQ

Breathing Stillness

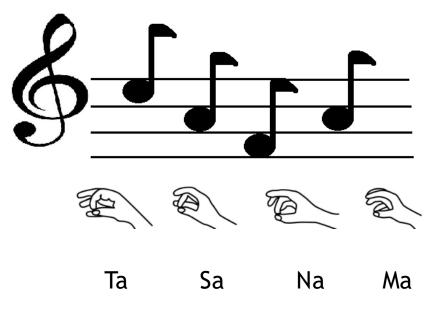
- ▶ 15-20 second exercise
- > 2-3 breaths
- Deeply focus on the physical sensation of your nostrils as the air goes in and out.
- Feel you belly moving up and down.
- Help creates pauses in the 'blah blah', creates a temporary space of stillness. Reduces DMN activity.
- Repeating every hour during waking hours can be an excellent way to practice good mental hygiene.





Kirtan Kriya Chant

- Evidence Based Technique for calming the mind.
- Non-symbolic sounds: Ta, Sa, Na, Ma
- We combine chanting, finger movements, and visualization
- 12 minutes chant: 2min normal voice, 2min whisper, 4min quietly, 2min whisper, 2min normal voice.





Thinking about vs. Thinking through

This is a pen and paper exercise



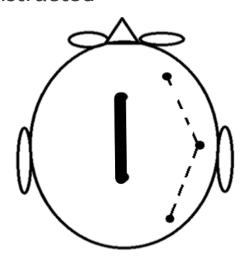
- Write down the one thing this is troubling you the most that day.
- Now think it through, really think <u>through</u> it:
- What are the possible solutions to this challenge?
- What are the pros and cons of solution A vs. solution B
- What initial steps can I do to carry out the solution.
- Brainstorm through the challenge as best you can.

Remember thinking through thinking about.

Thinking about vs. Thinking through

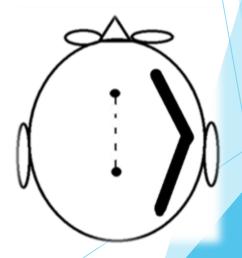
THINKING ABOUT

- Worry provoking
- Mind wandering
- Non-solution/problem focused
- Distracted

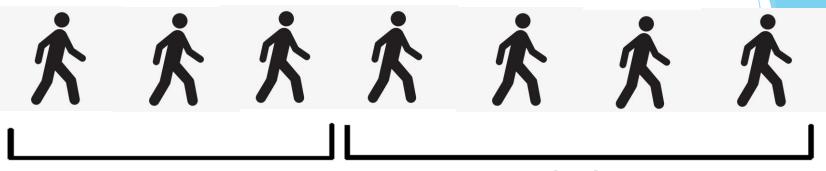


THINKING THROUGH

- Reflective
- Concentrated
- Solution focused
- Clear & Relaxed



Coordinating Breathing and Walking



Inhale Exhale

Inhale 3 steps...exhale 4 steps...inhale 3 steps...exhale 4 steps

- > The main idea is to have more steps on the exhale.
- Other combinations depending on your preference can also work.
- For example, inhale 2...exhale 3, or inhale 4...exhale 5

This can be done anytime you are walking anywhere, great way to encourage a quiet mind.

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Gratitude Exercises

Big big surprise, gratitude is very good for you!(O'Leary and Dockray, 2015)
A simple gratitude exercise goes as follows:

- This is a pen and paper exercise
- Write down three different things you appreciate about your life and for which you are grateful.
- When you're done, re-read them, slowly pausing between each one to take a moment and truly feel the gratitude in your body, even if it's just a tiny bit.
- The goal is to elicit brief moments of genuine gratitude, even if on a small scale.

This is a good routine to practice when you wake up or before you go to bed.

Self-Compassion



There are three pillars to self-compassion. This is the work of Dr. Kristin Neff

- Kindness and understanding to oneself (particularly to those aspects we generally don't like)
- Remembrance of our shared humanity (we are not unique in our limitations and suffering, but rather an expression of the human condition)
- Mindfulness over self-identification (learning to observe/witness our negative emotions rather than identify with them)

Self-Compassion vs. Self-Esteem

(My

Self Compassion

- A dedication to being kind and understanding to oneself, remembering your shared humanity, and learning to be aware of/witness/observe our negative emotions.
- Same or greater upside potential than self-esteem, no downside potential.
- Reliable, not dependant on external circumstances
- Provides a healthy and reliable buffer to the challenges of life.

Self Esteem

- It is an evaluation of our worthiness as individuals. A judgement that we are good valuable people.
- Potential upside in supporting well-being, but also significant potential downside
- Often unreliable, dependent on external circumstances

*** Fostering and nurturing self-compassion provides more emotional resilience and stability

The Mental Hygiene Recommendation

The mental hygiene recommendation is simple:

TEND TO YOUR MENTAL HYGIENE 10 MINUTES A DAY



Few thoughts on this:

- Find a combination that work for you, 1 minutes 10x a day, 2 minute 5x a day, or 10 minute all at once.
- Choose one you connect with, or...
- Mix and mash the different techniques reviewed in whichever way feels best for you.
- Make it your own!
- Pick it an approach that works for you and go for it!

MENTAL HYGIENE

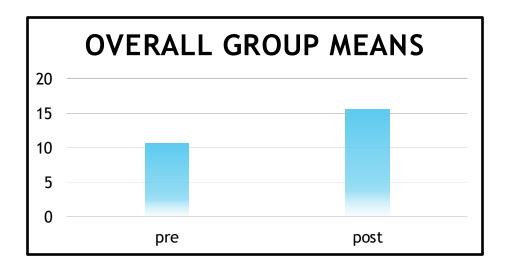
CHALLENGE 2022



- One of our main goals of the challenge was to help the community build healthy habits and resilience
- Served as a springboard to motivate the community to start thinking about their mental

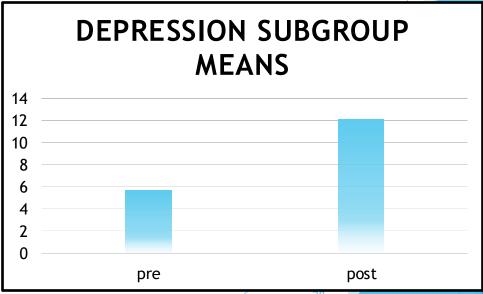


Results - 2022



The entire group experienced a statistically significant increase in their well-being scores after completing the 31-day Mental Hygiene Challenge

The depression subgroup also experienced a statistically significant increase in their well-being where they no longer met the screening cut-off for depression



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2022 Data Publication

The Mental Hygiene Challenge – A Novel Public Mental Health Intervention

Authors: Guillaume Tremblay ■ and Nicole C. Rodrigues | AUTHORS INFO & AFFILIATIONS

Publication: Canadian Journal of Community Mental Health • 4 March 2024 • https://doi.org/10.7870/cjcmh-2024-008

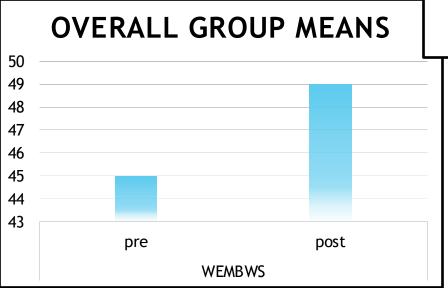


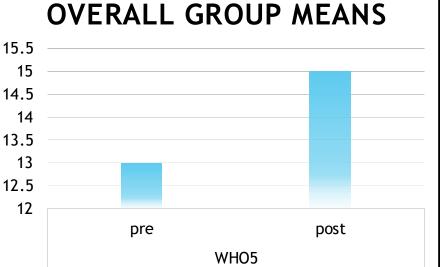
Abstract

To support population mental health, mental hygiene propounds a universal public recommendation. March 2022 was the inaugural mental hygiene challenge where community members were invited to spend 10 minutes a day throughout the month engaged in mental hygiene activities. The outcomes suggest daily mental hygiene supports mental well-being.

Results - 2023

- 203 paired surveys
- WHO5 and WEMBWS





The entire group experienced a statistically significant increase in their wellbeing scores after completing the 31-day Mental Hygiene Challenge

Participant testimonials

I was already working hard to mentally manage anxiety, etc., but this challenge has given me support, encouragement and so many new challenges to try.



I wanted to say a huge thank you to all of you on the Mental Hygiene Challenge Team. You all have been amazingly supportive and all your experience and knowledge you have provided has taught me what I sought out to achieve in this challenge

Mental Hygiene Resources

https://mentalhygienetoolkit.mystrikingly.com/

My Resources

The Best on Wellbeing Podcast - 3 episodes 5-10minutes long released every week.

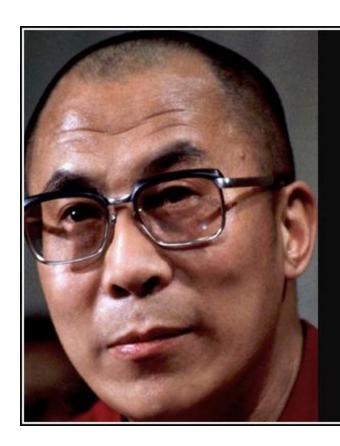
https://www.youtube.com/@thebestonwellbeingpodcast

https://www.facebook.com/guillaume.tremblay.457369

https://x.com/Tremblay5

www.linkedin.com/in/guillaume-tremblay-1b8438222

In other words...



Values are related to our emotions, just as we practice physical hygiene to preserve our physical health, we need to observe emotional hygiene to preserve a healthy mind and attitudes.

— Dalai Lama —

AZ QUOTES

