

Better Everyday Brain

Habits, Routines & Roles

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Living Life Therapy*



MS Ireland AHP Information Day 23/9/16



About me!



Private Specialist Occupational and Yoga Therapist in Brain and Mental Health – Living Life Therapy

- BSc Occupational Therapy in Edinburgh 2005, MSc Module in CBT self help techniques Glasgow Caledonian University in 2008, Braintree Training in the UK 2011, MSc in Cognitive Rehabilitation 2014 , Psychology department, University of Westminster .
- Yoga teacher since 2010, Yoga as Therapy Training in London 2012, MBEAT Mindfulness Teacher Training 2015, Currently undergoing Alignment Yoga Therapy training with Yoga Therapy Ireland and Neuroscience Yoga training in London.

My Mission in life:

- Empower people to find their own wellness tools through therapeutic engagement, education and mind body practices
- Demystify Brain Health for all ages
- Research brain health and mind body practices for real-life functional enhancement



About You!



Introduce yourself to the person next to you

1. Name
2. Area of Work
3. Outline your top two brain health tips

Take a moment afterwards to pause to remember this information



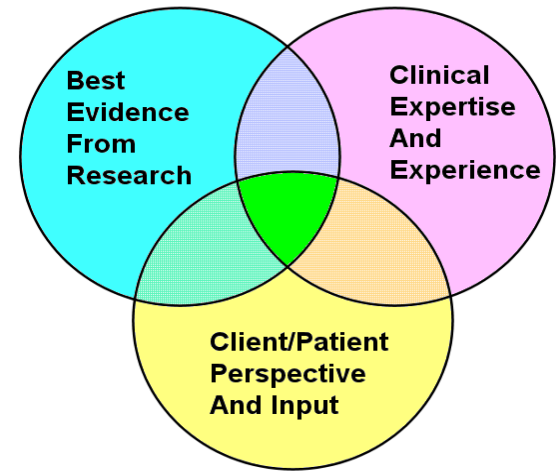
Overview



- My experience of Integrating Evidence Based Practices in the field of Brain Health
- Outline 'Better Everyday Brain'
 - An occupation-based education program



Integrative Evidence Based Practice



- **Occupational Therapy** *is a client-centred health profession concerned with promoting health and well being through occupation. The primary goal ...is **to enable people to participate** in the activities of everyday life.... (WFOT 2012)*
- **Cognitive Rehabilitation** *aims **to enable people** with cognitive impairments to achieve their optimum level of well-being by helping **to reduce the functional disability**...Central to this process is the collaborative identification of personally-meaningful goals and development of interventions’ (Clare 2008)*
- **Yoga Therapy** *.....refers to the adaptation and application of Yoga techniques and practices to help individuals facing health challenges at any level **manage their condition**, reduce symptoms, restore balance, increase vitality, and improve attitude (Kraftsow 2016)*



Top Down Approach to Brain Health OT Assessment – Occupational Therapy Intervention Process Model (OTIPM) Fisher (2009)



- **Occupational Profiling:** establishes ...'*occupational history and experiences, patterns of daily living, interests, values, and needs*' (AOTA, 2008).
+/- KAWA model- in particular if a more narrative discussion is indicated to review current life circumstances.
- **Functional Assessment:** Assessment of Motor and Process Skills
- **Subjective Questionnaires from Client**
- **Family Collateral Questionnaires**
- **Yoga Therapy Assessment (if applicable)**
- **Standardised Cognitive Assessments**



Goals- at of Therapy



Give some time to discuss what a Goal is

- Maintaining **sight** of your Goal-Keep your goal in mind. Visualise yourself achieving your goal.
- **Monitor** your performance- Keep tabs on the end state and current state, and identify any lapses in progress.
- Mind your **distractions**- Ability to stop those behaviours that aren't in alignment with moving towards the goal. (Brann, 2013)

Structured SMART Goals



Bangor Goal Setting Interview (Clare 2012)

Barriers, facilitators and resources:

- *What do I need to do to reach this goal?*
- *What might get in the way of reaching this goal?*
- *What resources do I have to help me meet this goal?*
- *What will help to overcome obstacles and achieve this goal?*

COPM (Law 2005)



Planning occupation-based intervention (Fisher 2009)



Plan and implement one or more of the following:

- Adaptive occupation
- Occupational skills training
- Person factors or body functions training
- An occupation-based education program



Better Everyday Brain



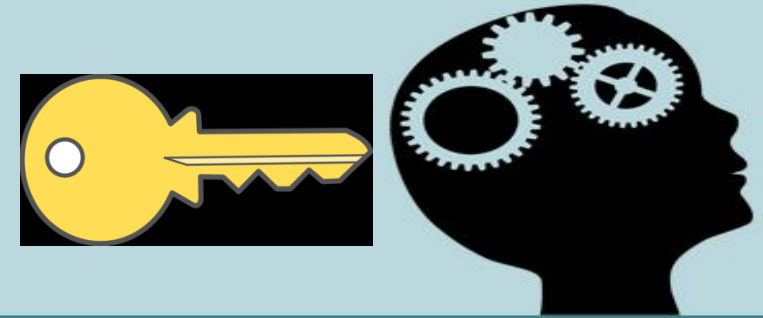
“Every brain can change, at any age” (Zull 2002)



- 8-12 week programme depending on the clients level of **awareness and readiness** to change
- Based on **current evidence base** in brain health
- The concept of **balance** across all areas is re-introduced each week, *‘a little of each everyday to keep your brain happy’*
- **Fun, novel activities** are key to maintaining interest and attention
- Each week structured **SMART occupation based goals** are set- linked with the clients overall OT goals
- **Family involvement** and education is important in many cases



How can I start to incorporate Brain Health Education into my practice?



- 1) At a minimum discuss the impact of brain symptoms on Roles, Routine and Habits
 - **Roles**-*Are you having any difficulty with the key roles in your life?*
 - **Routines**-*How does a typical day/week look like for you? Any challenges planning your routine and organisation?*
 - **Habits**-*Helpful habits OR Unhelpful habits that may be affecting your brain health?*
- 2) Consider the **Key Questions** outlined in BEB to guide discussion
- 3) Short on time or single visits?- What **single piece of evidence based brain health advice**, can I give that will have the greatest impact to this person's quality of life?
- 4) What resources are out there to guide **self education**-hello.brain.eu, [MS Brain health.org](http://MSBrainhealth.org), msql.org.uk
- 5) Knowing when to refer on for specialist intervention





E by 3 Meditation or 'Brain break'

Emer's E by 3 three minute meditation

1. Exhale big sigh x 3
2. Embody- 'put your body on'
3. Exhale longer



Knowledge

=Empowerment



How can we educate people with MS about brain health?

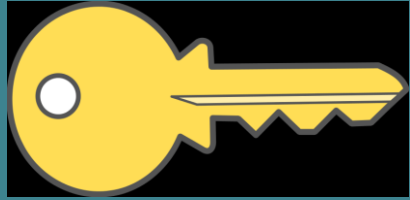
- Cognitive issues are common –discussion surrounding the complexities of brain health and why brain health is important in MS- using Msbrainhealth.org booklet
- Common cognitive symptoms in MS- In particular working memory, processing speed and new learning (MS Focus 2013).
- What's your Brain Baseline?
- Need to know Neuroscience



Knowledge

'What's your Brain Baseline'

The individual is the expert in their brain health.



Key Questions

- *When is your best time of day? Are you an early bird or night owl?*
- *What are your strengths? – may need to give prompts*
- *What challenges are you having?*
- *Which tasks do you need assistance?*
- *Do you know your learning style?*

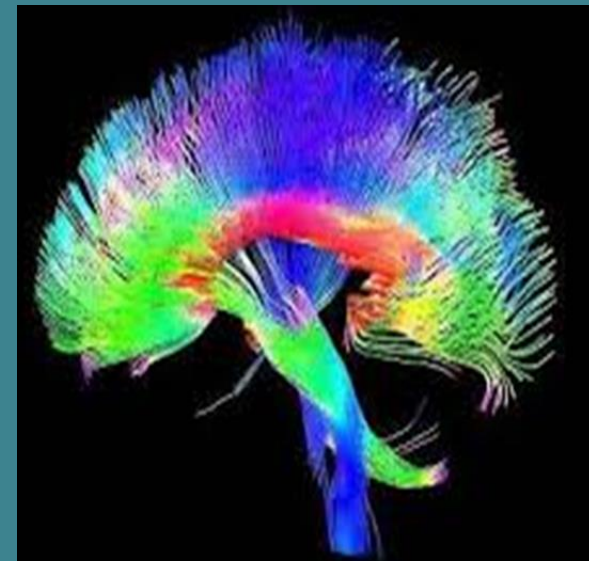
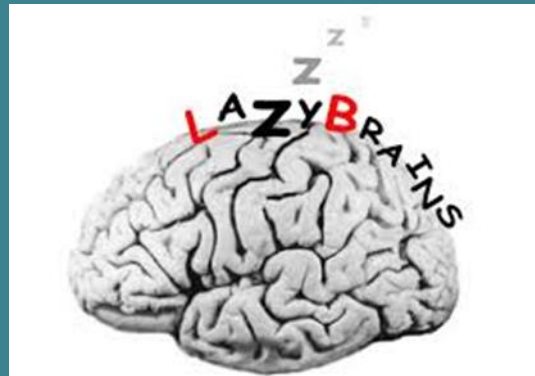


Knowledge

Need to know Neuroscience



- **Brain (cognitive) Reserve-** Life long Learning and maintaining our roles. *'Buffer your brain'*
- **Neuroplasticity-** The ability for the brain to change. Underpins learning, remembering things and behaviour change. *'What wires together fires together'* -effort and dedication is required
- **The Myth of Multitasking**



Challenge



- Learning New Activities- Building Cognitive Reserve
- Maintaining Current Activities
- Learning New Strategies- Internal and External

AND

To Computer Brain Train or not ...that is the Q?!



- *Specific repetitive activities that **aim** to augment a specific cognitive domain or general cognition'* (Rabipour & Raz 2012)
- Lack of robust evidence base to substantiate their claims and ecological transfer is unclear
- *A functional life devoid of meaning is merely existence, not living. Robots perform tasks, people engage in life activities to create and derive meaning'*
Charles Christiansen (2010)



Under what conditions might brain training be useful?

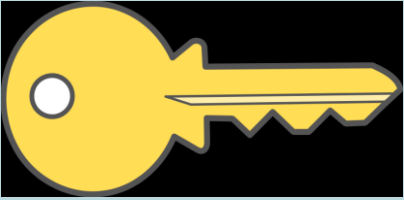


- Must be **relevant to real-life outcomes**- ideally targeting a specific area
- A minimum “dose” of **15 hours total per targeted brain function, performed over 8 weeks** is necessary for real improvement.
- **Continued practice** for continued benefits. www.Sharpbrains.com

BUT emphasise-

Cognitive activity takes many forms and there is nil conclusive **evidence that computers are better** at improving cognition than other activities, such as learning a new **language or hobby** etc.



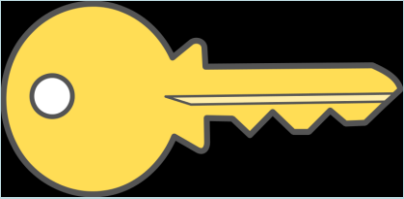


Questions-Brain training program



- **PRIORITY Q:**How long are you already spending on a computer at work/home? Do you have capacity for more screen time?
- How long you spend on your smartphone/ tablet during the day? Use Moment app to review use.
- Price to unlock brain training apps is minimum €60 per year. Can you afford this?





Questions-Brain training program



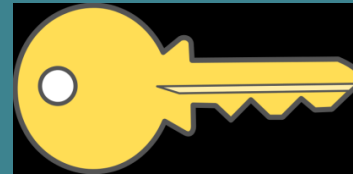
- Do you know which brain skill you want to train? Language, memory, attention, problem solving.
- Have you asked your health professional and/or someone close to you for their opinion?
- Have you thought about taking up a new creative hobby instead?
- Review Sharpbrains Checklist- 10 Questions to evaluate 'brain training claims' <http://sharpbrains.com/resources/10-question-evaluation-checklist/>



Challenge



- We all need to keep learning at every age.
- Lifelong Learning should be **enjoyable and Stress Free!**
- But we need to find our '*Comfortable Edge*'



Questions:

Current activities: Can you give yourself a gentle nudge? Try _____ differently?

New activities: Your brain craves novel experiences. What new activity can you start?

Challenge



Combine **mental, social and physical** components for a full brain workout.



Motivation

Are you interested? Will you do it?!



Performance

Is it pitched at the right level?
Can you succeed yet be challenged?



Routine

Does it make a Real Life Difference to you and allow you to live to the full within your social context?

To make change and adopt a new habit you require have to put in

1) **Effort** (Practice, practice and more practice!) 2) **Focus** and 3) **Determination**



Challenge

Internal Strategy- Visual Imagery and Context



- Modified Story Memory Technique Class 1 Evidence (Chiaravalloti et al. 2013)
- Their research indicated that emphasising on context and visual imagery significantly improved new learning and memory in MS.
- 10 sessions – 2 x week over 5 weeks 45-60 minutes per session

How can we encourage more visual learning if we don't have the time for this protocol?

Visual Imagery Exercise

‘Giving your brain a boost’



‘Flip it’s Mum’s birthday today!’



‘I’ll get her, her favourite flowers’



‘I should have watered the cactus plant meaning to for ages and probably need fed’



‘I think I’m nearly out of plant food, I’d better buy some ‘



‘Oh yeah, loo roll and coffee too !!’

- Mum’s Birthday
- Favourite Flowers
- Water cacti
- Buy plant feed, Loo roll, coffee

1. **Create mental images for each word.**
2. **Try to have 2 pieces of information per image**
3. **Make a visual story in your head**
4. **Let your imagination go wild! The funnier, more colourful, bizarre the better**



Challenge

Learning New External Strategies



Four Elements to External Aids: *'Insight, Buy In, Others On Board and Making it Real'* (Armstrong 2011 cited in Gillen 2009)

Modified **memory notebooks** have been shown to be more effective than standard diaries (Mc Kerracher et. al, 2005). Recommend Gillen (2009) for further information on modified diaries. Encourage adding a symptom section.

The use of external memory aids to support everyday activities is a **stronger predictor of independent living** in the community (Cernish et. al, 2010)



Tech Life Balance !



Do you have the capacity for more gadgets/devices?

1) Build Awareness

Consumption-What is the Quality and Quantity of information technology consumption?

Reflection-Are you giving yourself time to digest the information or is it constantly streaming in

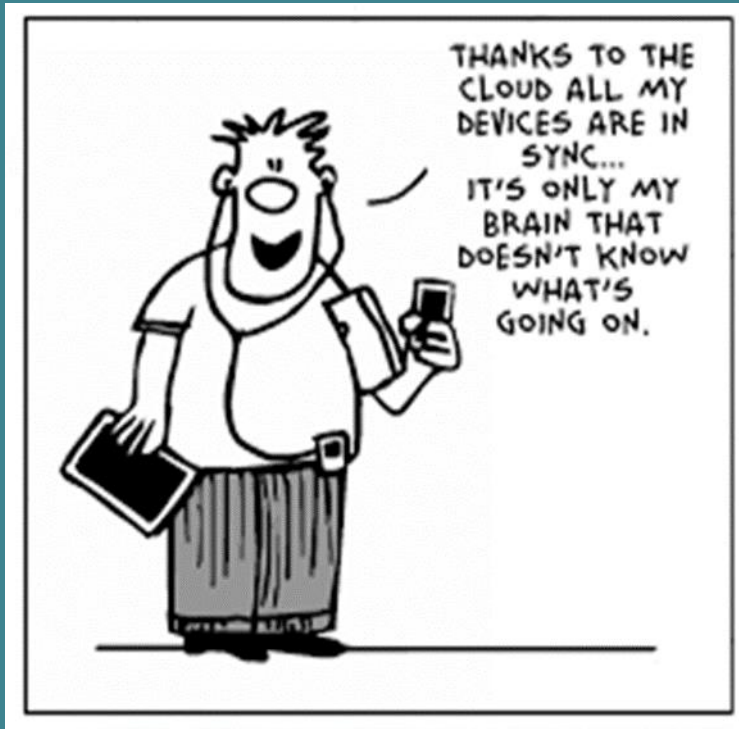
2) Filter your Tech Habit

Turn OFF unnecessary Notifications !

Filter emails

Turn your phone off at least an hour before bed

Schedule some 'tech free time'- let your mind wander to spark creativity



Exercise to spark **Creativity**

‘Giving your brain a **boost**’



Movement



- A healthy lifestyle is the foundation for any brain change.
- One of the best brain training exercises is physical exercise.
- **Boosts blood flow** to the brain.
- Generates BDNF which acts like fertilizer for the **growth of brain cells** and the cells connections.
- Associated with **larger brain** volume in particular in our memory network.
- People who exercise regularly experience **fewer symptoms of depression and anxiety.**
- Recommended Dose of 3 x 30-60 min per week of aerobic exercise (Erickson 2010)

Movement

Yoga Therapy and MS



The emerging research in Yoga Therapy and MS indicates that Yoga could positively impact

- Wellbeing
- Physical and ambulatory function
- Mood
- Quality of life
- Fatigue
- Physical Pain
- Depression
- Cognitive Function- Selective attention
- Neurogenic Bladder Management

Possible Mechanisms may include reduced markers of inflammation and optimized immune function. Further research is required (Khalsa et al. 2016)



Nourish



Nourish your brain with a **healthy balanced diet**

Nourish your brain with **sleep** – Consider Sleep Hygiene Intervention

Repairs and rejuvenates, Needed for **learning, memory and development**.

Napping is very useful for brain health and also for managing fatigue related to MS.

20-minute power nap can enhance memory and learning, sparks creativity and regulates emotions.

Even if you don't fall asleep, it still **gives your brain a break** and may reduce fatigue

Taking your **medication** as prescribed

Quitting **Smoking**



Socialise



A strong social network is key to a Better Everyday Brain, it is associated with

- Boosting your **mood**
- Building your cognitive **reserve**
- **Longevity**
- Greater **self-acceptance**
- Enhancing **pain management**
- Gives us a **central purpose** of life.



Quality not the quantity that counts.

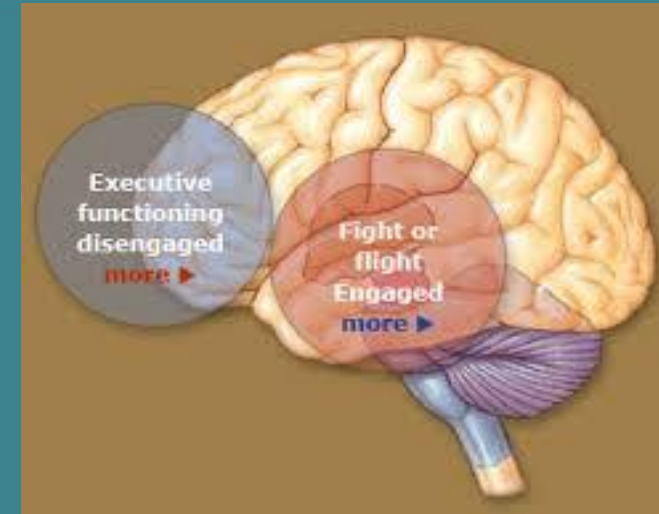
Volunteering associated with enhanced executive skills (Carlson 2009)



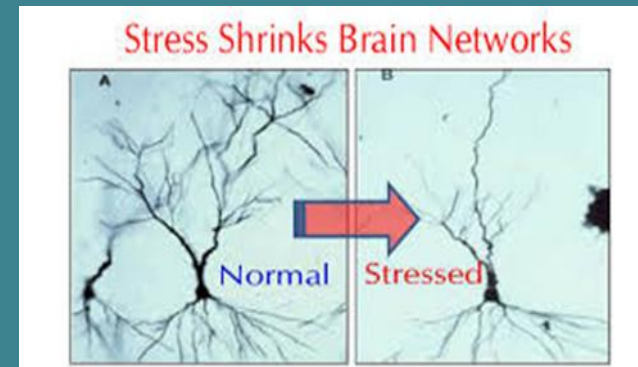
Calm



Stress is inevitable
but we have to all costs avoid
Chronic Stress



Stress is **Toxic** to neurons



Calm



Find your way to **build resilience to stress**

Build a **Toolbox of Stress Busters**

Find your 'flow activities- *'being completely involved in an activity for it's own sake'* **(Csikszentmihalyi 2008)**



Mindfulness Meditation: Train our brains to be in the present moment. Benefits in MS research indicate MBIs may improve sleep, coping, wellbeing and decrease fatigue, depression, anxiety, stress and pain.

It has been delivered face to face, via skype and on the phone.(Bogosian 2015, Frontario et al., 2016, Grossman et al., 2010, Simpson et al., 2014).

Tech for Meditation –Wearables & apps



Pip- Biofeedback
Electrodermal Activity



Muse- Biofeedback
Brainwave activity



Headspace
meditation app



Better Everyday Brain



“Every brain can change, at any age” (Zull 2002)

Knowledge

+

Challenge

+

Movement

+

Nourish

+

Socialise

+

Calm

=

Better
Everyday
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Know
Your Brain
Baseline

- Keep Learning
- Effort
- Focus
- Determination

Move
every
day

Eat and
Sleep
Well

Stay
Connected

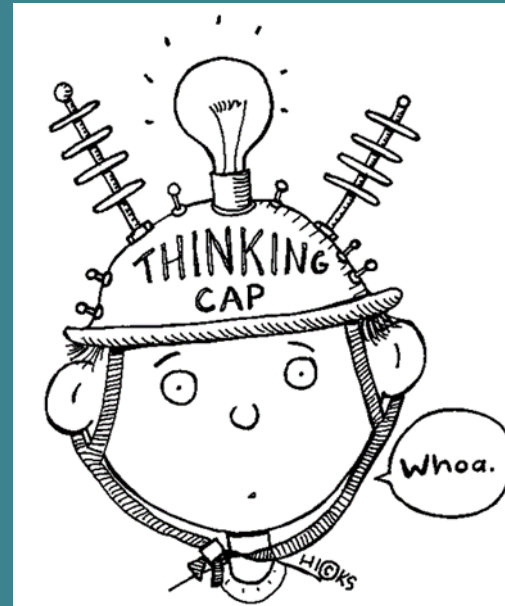
- Reduce Stress
- Slow Down
- Find your flow





**THANK YOU
FOR LISTENING!**

Any Questions?



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