
CONSCIOUS CARE & SUPPORT



Conscious Care and Support

Developing
Emotionally Self-Regulated & Kind Supporters
Facilitating
Comprehensive Biomedical Support & Treatment

Session I – Resource 1



Contributors to Conscious Care and Support

Conscious Care and Support has been developed while supporting, training or in direct consultation with:

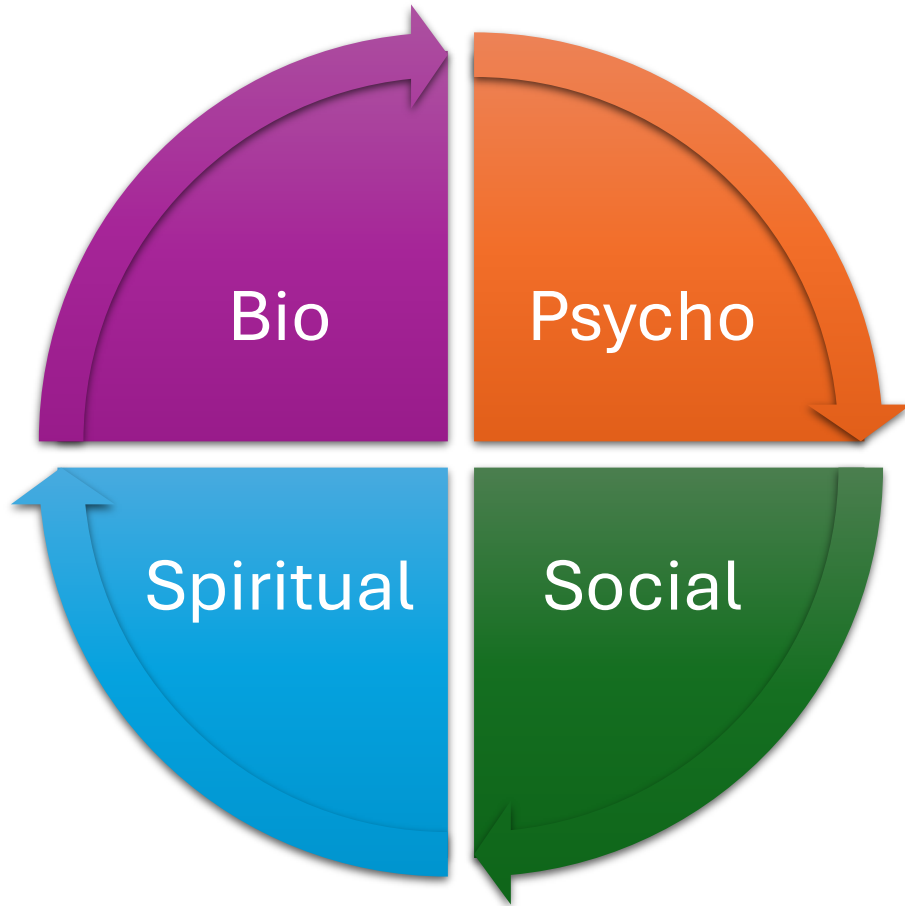
- Approximately 3,000 Moms, Dads, and Support Professionals.
- Dr. John Ratey, Associate Clinical Professor of Psychiatry at Harvard Medical School (reference 8 books on mental health and autism and other developmental disabilities including ‘Spark’ and ‘Shadow Syndromes’).
- Dr. Theresa Hamlin, Associate Executive Director of The Center for Discovery and her staff. Dr. Hamlin is the author of ‘Autism and the Stress Effect’.
- Dr. Martha Herbert, Assistant Professor of Neurology at Harvard Medical School and a Pediatric Neurologist at Massachusetts General Hospital, where she is Director of the Transcend Research Program. She sits on the Scientific Advisory Committee for Autism Speaks (reference ‘The Autism Revolution’).
- Dr. Shinzen Young, Mindfulness Research Consultant, Harvard Medical School.
- Universities of Toronto and Western Ontario/London Health Sciences Centre and Centre for Addiction and Mental Health (CAMH)



To Consistently Deliver Optimal Support – The Supporter Needs Three Key Professional and Intrapersonal Qualities



A Complete Lens of Understanding Unmet Needs?



At 21 years old, Kyla has recently left high school and moved into her own apartment after years of living with her family. She has 2 new DSPs who support her for about 10 hours a week with odd chores around the house and other things like helping her with her banking. Although Kyla is quite capable, she struggles with preparing meals as her mom used to do that for her. She is unemployed and recently decided that she no longer wants to volunteer at the humane society of which she has done for years. Kyla continues to struggle with anxiety and depression and although she regularly sees the nurse from the local dual diagnosis program, her anxiety and depression are getting worse.



1. Co-Occurring Conditions not the Diagnosis



Facts About Autism and Other Developmental Disabilities

*The American Academy of Pediatrics
dedicated to the health of all children.*



“Autism behaviours have been adopted as unofficial criteria in the assessment of Autism, but there is no evidence supporting the attribution of behaviours such as head banging, aggression and night waking to the pathophysiology of Autism. Parents and supporters should be aware that these maybe the primary or sole symptom of underlying (bio)medical conditions.” (Buie et al., 2010)

Buie, T., Campbell, D. B., Fuchs, G. J., 3rd, Furuta, G. T., Levy, J., Vandewater, J., Whitaker, A. H., Atkins, D., Bauman, M. L., Beaudet, A. L., Carr, E. G., Gershon, M. D., Hyman, S. L., Jirapinyo, P., Jyonouchi, H., Kooros, K., Kushak, R., Levitt, P., Levy, S. E., Lewis, J. D., ... Winter, H. (2010). Evaluation, diagnosis, and treatment of gastrointestinal disorders in individuals with ASDs: a consensus report. *Pediatrics*, 125 Suppl 1, S1–S18. [URL](#)

Dr. Theresa Hamlin,

Associate Executive Director at The Center for Discovery

It's well documented, but not well understood that people with Autism live with a whole host of chronic problems such as*:

- brain and body inflammation
- gastrointestinal and metabolic problems**
- seizures
- sleep problems
- high levels of chronic stress and anxiety
- general dysregulation of the emotional and psychological body systems
- immune and autoimmune problems

*Kohane, I. S., McMurry, A., Weber, G., MacFadden, D., Rappaport, L., Kunkel, L., Bickel, J., Wattanasin, N., Spence, S., Murphy, S., & Churchill, S. (2012). The co-morbidity burden of children and young adults with autism spectrum disorders. PloS one, 7(4), e33224. [URL](#)

**Ferina, J., Kruger, M., Kruger, U., Ryan, D., Anderson, C., Foster, J., Hamlin, T., & Hahn, J. (2023). Predicting Problematic Behavior in Autism Spectrum Disorder Using Medical History and Environmental Data. Journal of personalized medicine, 13(10), 1513. [URL](#)



The Kilee Patchell-Evans Autism Research Group

University of Western Ontario

Collective data suggests alterations in gut function, energy production and the immune system, a variety of environmental factors, possibly stemming from chemicals produced by gut bacteria, may contribute to Autism associated behaviour and other effects on health.

It appears that these biological compounds, largely stemming from the digestive track but also present in diet, are either directly or indirectly altering brain function at a variety of levels.

This has profound implications in identification prevention and treatment of people with developmental disabilities.

Slattery, J., MacFabe, D. F., & Frye, R. E. (2016). The Significance of the Enteric Microbiome on the Development of Childhood Disease: A Review of Prebiotic and Probiotic Therapies in Disorders of Childhood. *Clinical medicine insights. Pediatrics*, 10, 91–107. [URL](#)



Autism and Sensory Processing Disorders

Recent estimates of the prevalence of the symptoms of sensory processing disorder of people with Autism range from 69% – 93% in children and were added as a diagnostic criteria of Autism Spectrum Disorder in the DSM-5 (American Psychiatric Association, 2013)*.

*Carmen B. Pingree Autism Center of Learning. (n.d.). Sensory Overload in Autism. [URL](#)



Dr. Theresa Hamlin,

Associate Executive Director at The Center for Discovery

Adrenaline (that is released when the person is stressed) causes a rapid release of glucose and fatty acids into the blood stream, causing our senses to become keener and less sensitive to pain and muscles to become activated. When all of this occurs together, we are in metabolic overdrive.

- Chronic stress causing increased activation of cortisol in the body and brain can be a major problem. Particularly susceptible to damage from cortisol is the hippocampus that is critical for learning and memory.



Dr. Martha Herbert,

Assistant Professor of Neurology at Harvard Medical School and Pediatric Neurologist at Massachusetts General Hospital

Over time, I gathered more and more evidence to support the idea that Autism is not about having a 'broken brain' but about having a brain that is having a hard time regulating itself.

So, what kind of things can dysregulate a brain?

- insomnia
- pesticides and fumes from automobiles or household chemicals
- poor nutrition e.g. low zinc or magnesium or other vital nutrients
- too much sugar or additives or other junk
- gut inflammation and irritability that cannot absorb nutrients well
- EMFs/RFRs that degrade optimal chemical/electrical functions thereby detuning our brains and nervous system



Ontario Association for Behaviour Analysis (ONTABA)

CCC acknowledges ONTABA as an important contributor to the objectives of Conscious Care & Support. In January 2019, the following vitally important recommendations were published by (ONTABA).

Evidence-Based Practices for the Treatment of Challenging Behaviour in Intellectual and Developmental Disabilities: Recommendations for Caregivers, Practitioners, and Policy Makers



Scientific Expert Task Force Report - Quotations

‘All individuals who engage in challenging behaviour should receive a medical assessment to rule out the possibility that the behaviour is occurring due to an underlying medical condition.’

‘The Canadian Consensus Guidelines (CCG) for the Primary Care of Adults with Intellectual and Developmental Disabilities (Sullivan et al., 2018) provide a comprehensive set of recommendations.’ (Reference The College of Family Physicians of Canada)

These guidelines also identify a number of common medical issues that may contribute to the onset of challenging behaviour.



Scientific Expert Task Force Report – Quotations

continued

“If medical concerns have been ruled out as a cause for challenging behaviour, subsequent assessment strategies should be employed.”

– Reference page 20.

“The bio-behavioural model of challenging behaviour indicates that both biological and environmental factors must be considered during assessment and addressed in treatment.”

– Reference page 6.



Behavioural Interventions Are Often Necessary

- Behavioural interventions such as ABA and IBI that follow the Behaviour Analyst Board Standards for Certification are useful and often necessary complements to the fully integrated biomedical support and supporter development process.
- The more complete the integrated process, the greater the potential for ABA/IBI to enhance well-being and prevent and manage anxiety and aggression.



Examples of Prevalence of Co-occurring Conditions in Those Living with Developmental Disabilities with Complex Needs

- **Gastrointestinal**
 - infections
 - intolerances
 - imbalances (e.g. vit/min)
 - physical pain
- **Mental & Neurological**
 - e.g. seizures and mood disorders
- **Brain Imbalances**
 - inflammations
 - coherence (lack of)
 - under development
 - motor planning problems
- **Sensory Integration and Processing**
 - hyper/hypo activation
- **Human Energy**
 - sensitivities (e.g. EMF/ RWF)
 - intolerances
- **Cellular**
 - mitochondria dysfunction
- **Emotional**
 - fears and phobias
- **Adrenal Glands**
 - over production of cortisol

*Reference Hamlin, T. Autism and The Stress Effect (The Centre for Discovery)



2. Anxiety → Aggression → Calm



Anxiety and Pain → Aggression → Calm

- Unmet regulation needs result in physical and emotional pain e.g. anxiety and stress.
- This often results in cycles of increased frequency and intensity of chronic and acute self injurious behaviours and aggressions.
- This is very often because the behaviours reduce the person's feelings of anxiety.
- This eventually results in temporary calm.



3. Anxiety is Counterproductive



Anxiety is Counterproductive

Support interventions that increase anxiety and stress are counterproductive and often increase challenging behaviours and the eventual compromise of the sympathetic nervous system's regulation.

“For us to live our life to the fullest, we must prevent and better manage our fears.”

Temple Grandin



4. From 0 – 60 mph in seconds?



From 0-60 mph in Seconds?

“Individuals with Autism live in a challenging state of hyperarousal. Many live in pre-panic states day in and day out.”

“Anger can be a strangely soothing emotion – Rage is organizing: When we have worked ourselves up into a fury, we are completely focused, involved and unified.....”

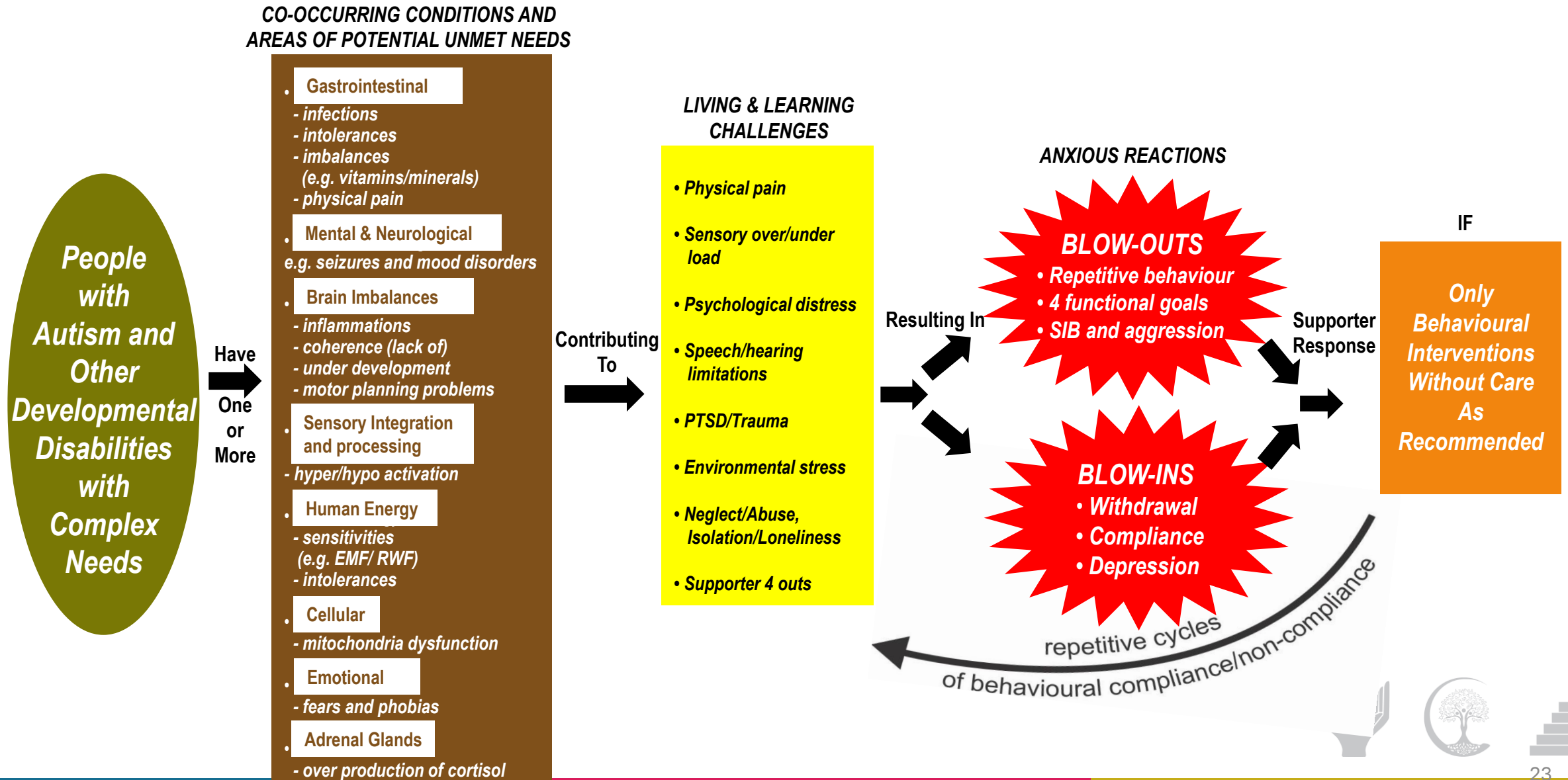
(Our fear is replaced by anger – a much more ‘user friendly’ emotion).

Shadow Syndrome

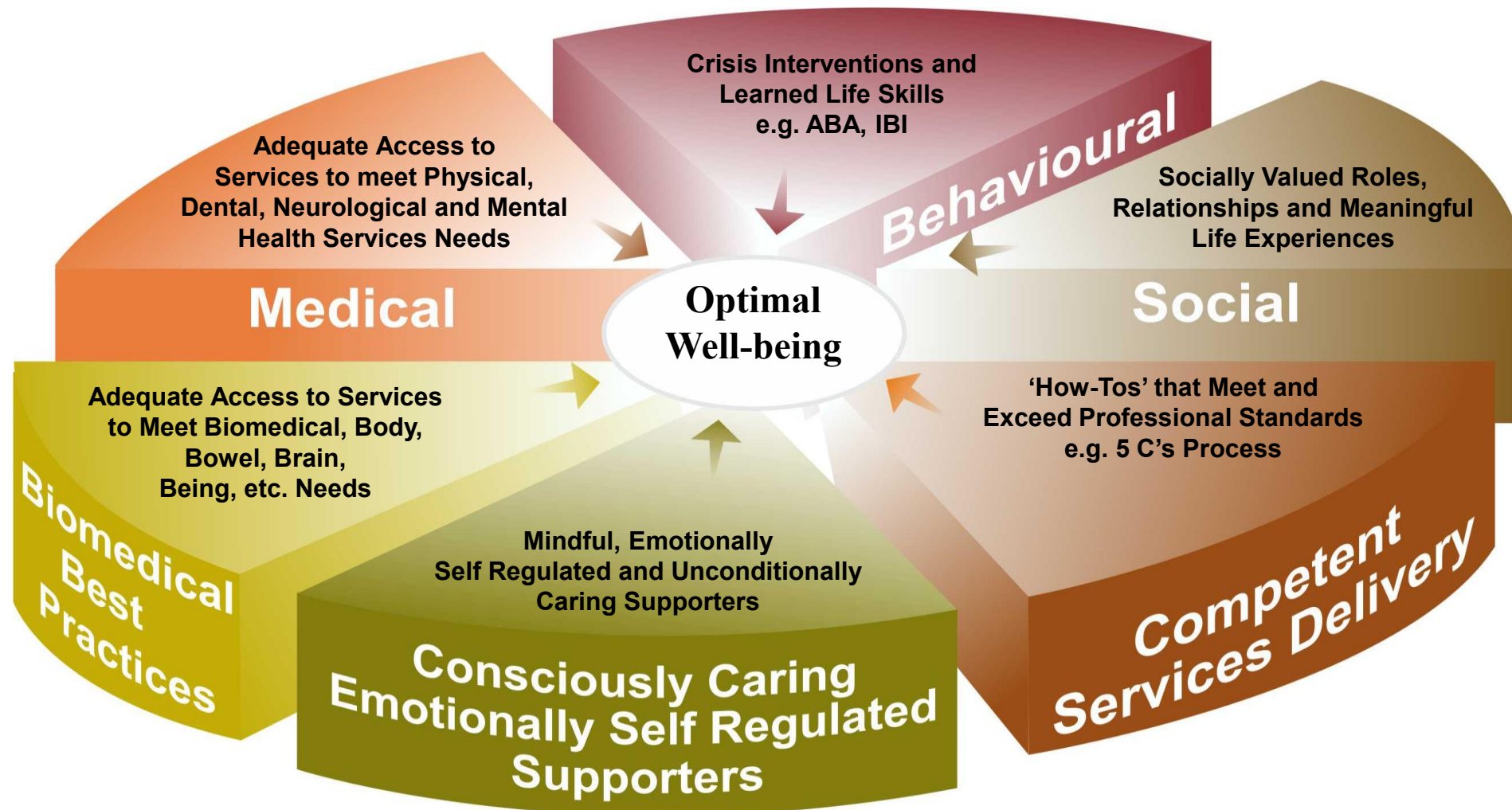
*John Ratey M.D.
Associate Clinical Professor, Harvard Medical School
Author and Co-author of 8 Books
Over 60 Peer Reviewed Papers*



The Recurring Cycles



Evidence Based CCS Components for Well-being and the Prevention and De-escalation of Challenging Behaviours

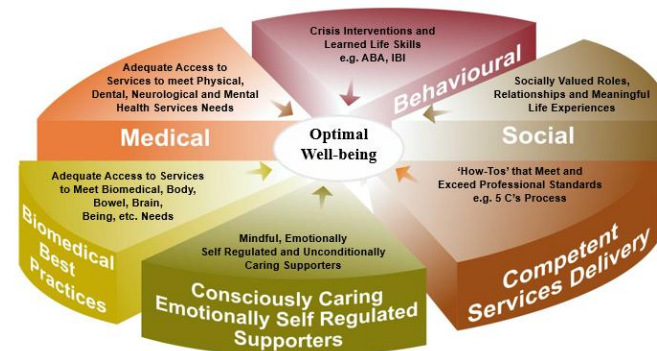


Breaking The Recurring Cycles

CO-OCCURRING CONDITIONS AND AREAS OF POTENTIAL UNMET NEEDS

- **Gastrointestinal**
 - infections
 - intolerances
 - imbalances (e.g. vitamins/minerals)
 - physical pain
- **Mental & Neurological**
e.g. seizures and mood disorders
- **Brain Imbalances**
 - inflammations
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 - motor planning problems
- **Sensory Integration and processing**
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- **Human Energy**
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 - intolerances
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 - over production of cortisol

CCS
Intervention



Contributing
To

LESS AND LESS LIVING & LEARNING CHALLENGES

- Physical pain
- Fears and phobias
- Sensory over/under load
- Psychological distress
- Speech/hearing limitations
- PTSD/Trauma
- Environmental stress
- Neglect/Abuse, Isolation/Loneliness
- Supporter 4 outs

Resulting
In

BETTER AND BETTER OPTIMAL LIVING CONDITIONS

- Self Regulated Nervous System
- Relative Calm
- Well-being

Note: living and learning challenges become less, directly proportionate to the implementation of CCS interventions resulting in enhanced optimal living conditions.



CCS Well-being Facilitation Plan

Reference Session I – Resource 2



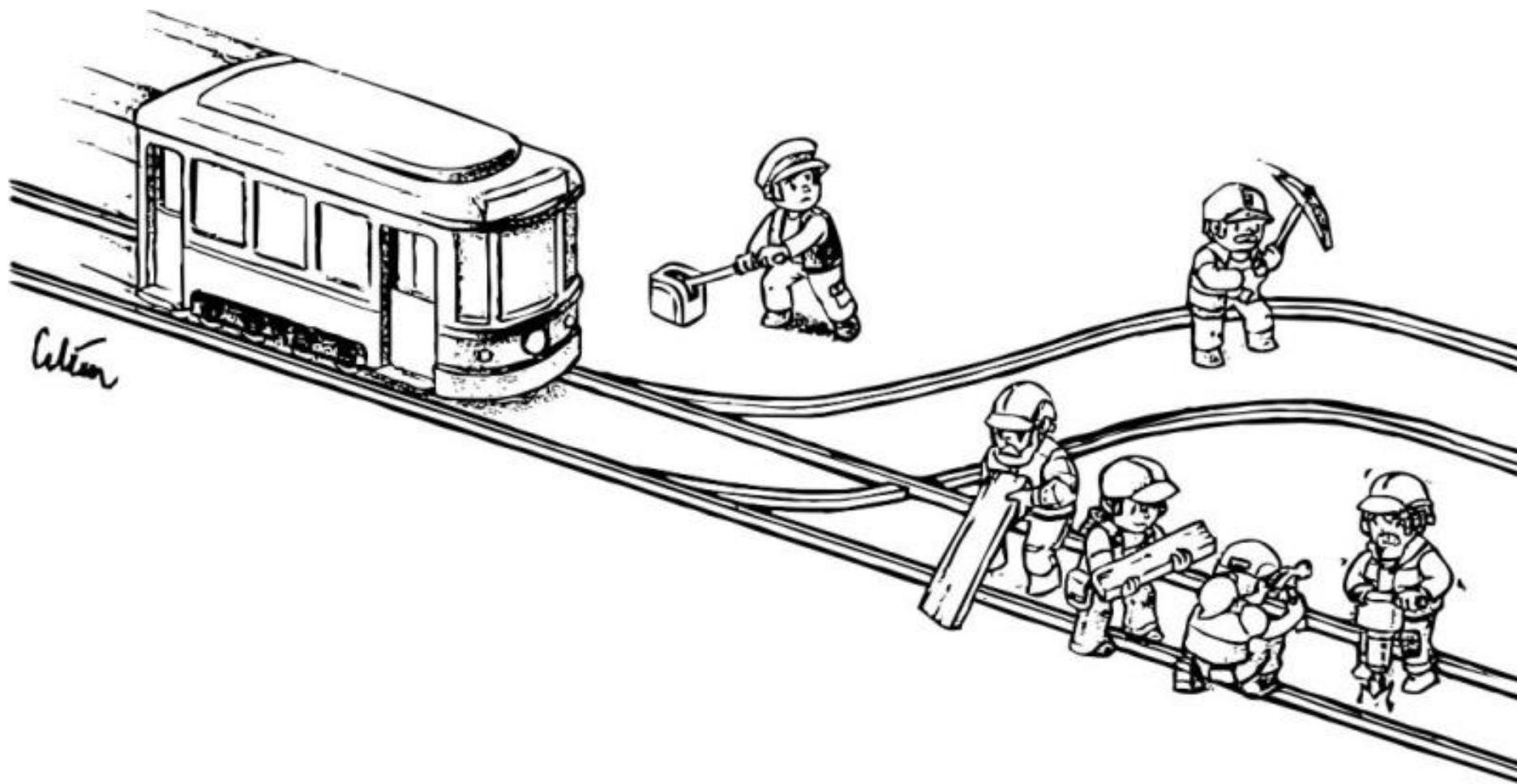
CCS Hierarchy of Service Needs

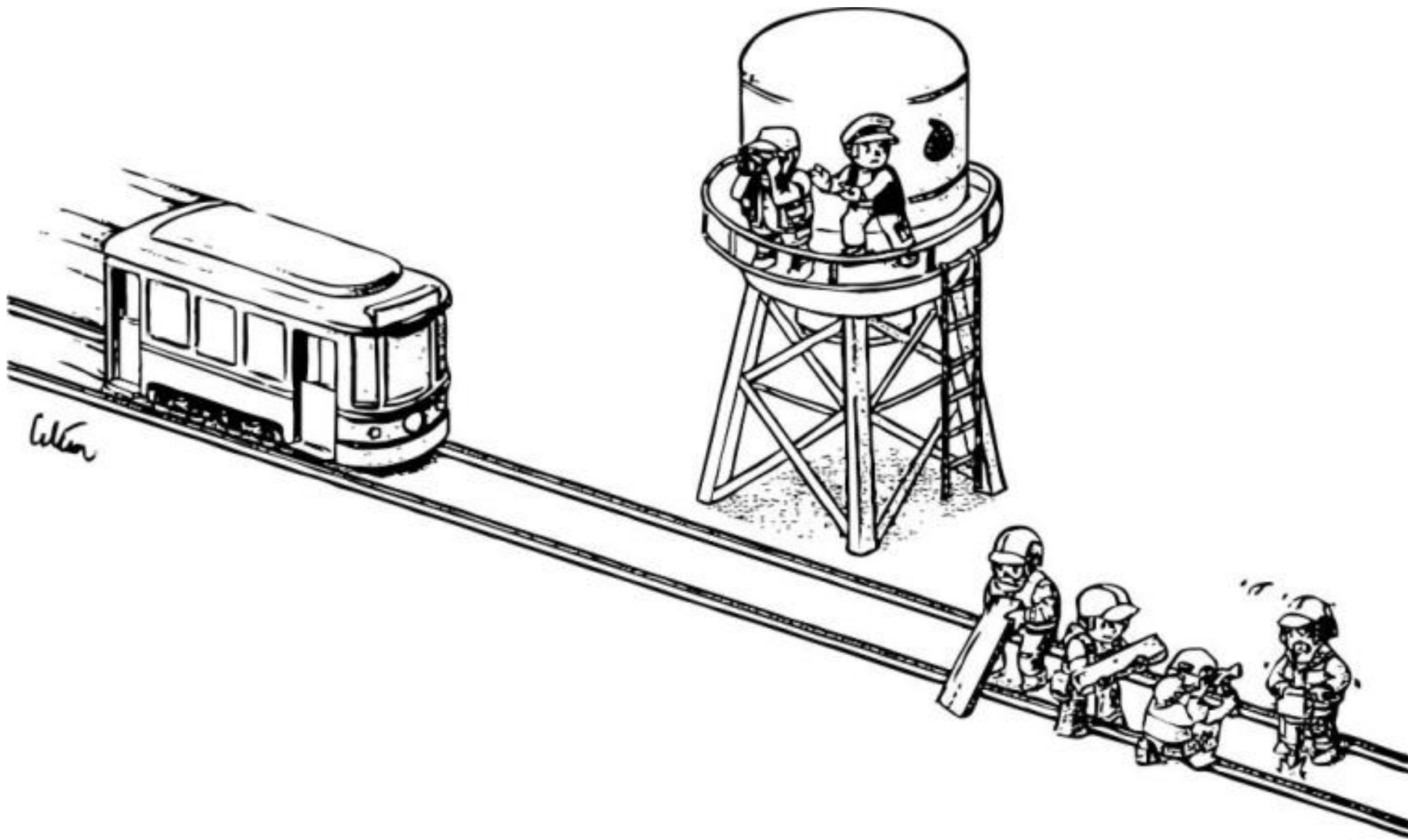
Toward A More Complete Understanding

of the hierarchy of special needs to meet
in order to facilitate optimal well-being
and to prevent and mindfully manage
anxiety, anger and aggression

**Physical and
Emotional Well-being**

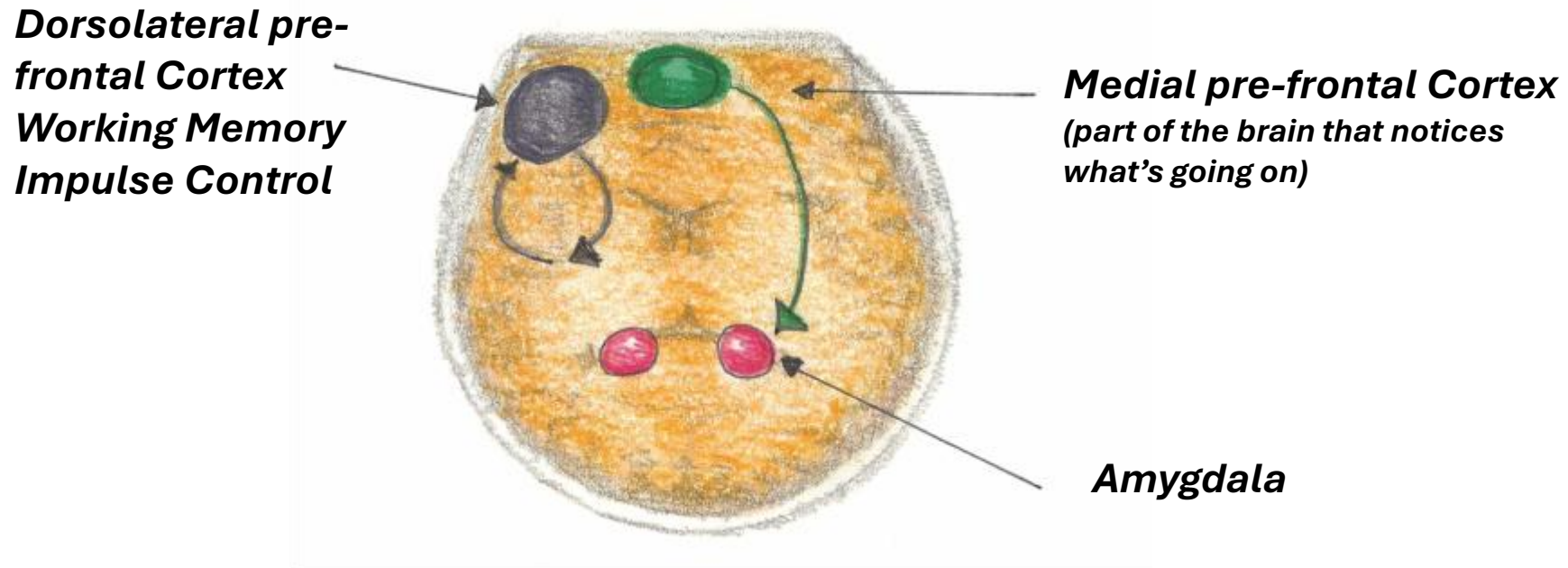
**Awareness-based calming and de-escalation skills offered by mindful, emotionally
self-regulated and kind supporters**





Mindful Emotional Self Regulation

The main way we can consciously access the emotional brain is through self awareness*, i.e. becoming mindful. Mindfulness increases connections in the medial pre-frontal cortex. This reduces anxiety for the Supporter and the Person Supported.



(*Research reference: J. LeDoux, "Emotion Circuits in the Brain", Journal of Neuroscience 33, no. 9 (2013) 3815-23)



According to many published Neuroscientists, including Dr. Daniel Siegel (UCLA) in his book called ***The Mindful Brain*** (page 42 and 43) the following brain, body and being functions correlate with the activity of medial areas of the prefrontal cortex:

1. **Body regulation** – the emotional brakes and accelerator functions.
2. **Attuned communication** involves the coordination of the input from another person with the activity of one's own (as with mirror neurons).
3. **Emotional balance** to have enough activation so that life has meaning and vitality but not so much that life becomes chaotic.
4. **Response flexibility** is the capacity to pause before action.
5. **Empathy** – knowing what might be going on inside someone else.
6. **Insight or self-knowing** awareness to be able to link the past, present and future.
7. **Fear modulation** that may be carried out by the release of the inhibitory neurotransmitter GABA.
8. **Intuition** – a neural mechanism by which we process deep ways of knowing via our body i.e. 'somatic intelligence'.
9. **Morality** – taking into consideration the larger picture, to image what is best for the whole not just one's self, even when alone.



The You
Who is Listening to Me
Did Not Make the Choice
To Push or Not!
(Unless you were mindful/conscious)



Definitions to Better Understand the ‘Set-up’

Over each 24 hour period, we can be experiencing consciousness on a 1-10 continuum.

Unconscious: (1)

- like when we are asleep in our bed.

Semiconscious: (autopilot) (5)

- like how we typically drive our car, relate to people and do most ‘doings’.

Fully Conscious: (self aware) (10)

- like when we are paying attention – noticing **what** we are doing e.g. how we drive when a police car is following us;
- knowing **that** we are doing it and
- knowing **how** our **body’s sensations, feelings and thoughts** are reacting to what is happening.

Subconscious:

- our data bank of ‘files’ that we inherit and develop.



The Role of Early Educational Interventions



Physician Handbook



Studies have shown that early intensive educational interventions result in improved outcomes for the child and family. Initial strategies may include teaching the child to notice what is going on in their environment, to be able to pay attention.



Examples of CCS Tools to Enhance Self and Others' Mindful Emotional Self Regulation

- B-FIT Mindfulness (the essential tool to initiate Conscious Care and Support)
- Calming others by calming oneself – emotional contagion and mirror neurons e.g. Pain Empathy
- Bilateral, Biomeridian Awareness Based Calming (BB-ABC) e.g. Rocking and 15 Tools

All Tools must be practised during times of calm.



CCS Hierarchy of Service Needs

Toward A More Complete Understanding

of the hierarchy of special needs to meet in order to facilitate optimal well-being and to prevent and mindfully manage anxiety, anger and aggression

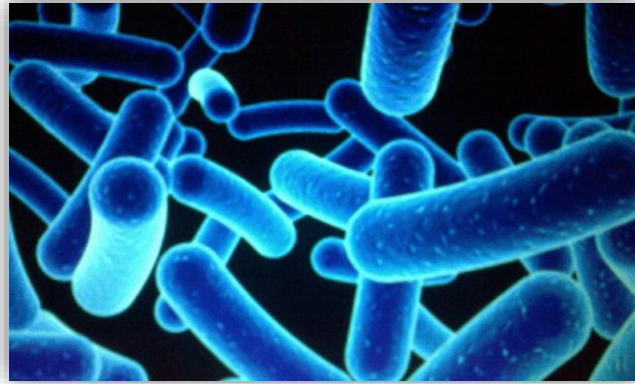
Physical and Emotional Well-being

Gastrointestinal (GI), bowel, digestive and immune systems' treatment, nutrition, pain management, dental and myofunctional disorders, illness prevention and treatment

Awareness-based calming and de-escalation skills offered by mindful, emotionally self-regulated and kind supporters

Needs for GI and Bowel Management and Holistic Treatment

- Distressed Gut Microbes – produce Mind/Body Agitation, Pain and Anxiety which often leads to aggression.



1% Human
99 % Bacterial and Fungal

- Some Microbes found in the gut of individuals with Autism, when introduced into healthy rodents, create numerous Autistic like symptoms.
e.g.
 - Repetitive behaviours
 - Social aversion
 - Easy to startle

(Reference: Dr. Derrick MacFabe, The University of Western Ontario)
(Young, E. - *I Contain Multitudes*, pages 69 & 70)



Microbes, Anxiety and Aggression

Chronic anxiety means excessive toxic cortisol in the body. To neutralize this toxin, the body uses up basic building blocks like amino acids that are needed to:

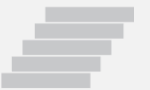
- digest food
- build the immune system
- produce calming neurotransmitters

This depletion causes anxiety leading to challenging behaviour.



BREAK TIME

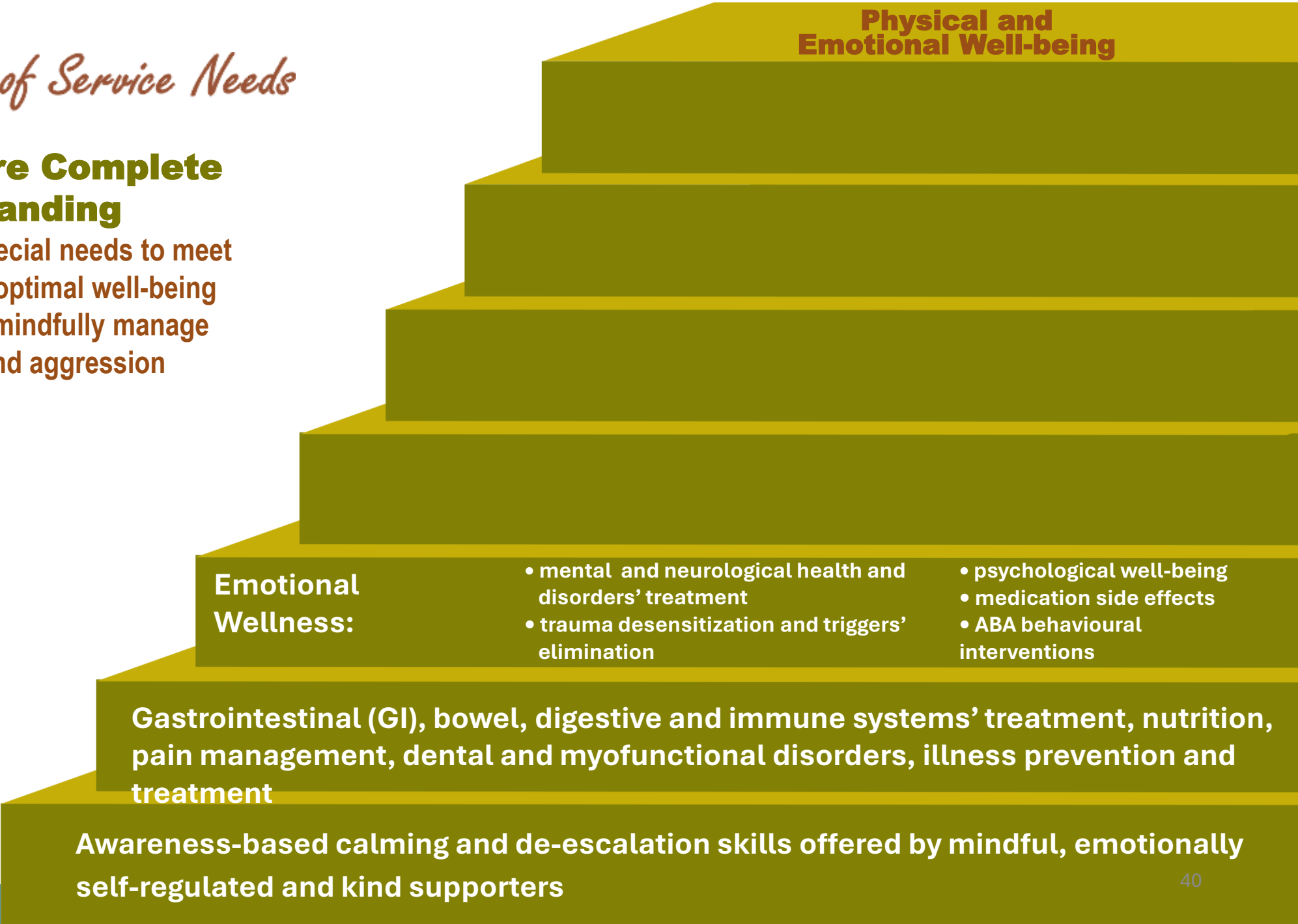
10 minutes please



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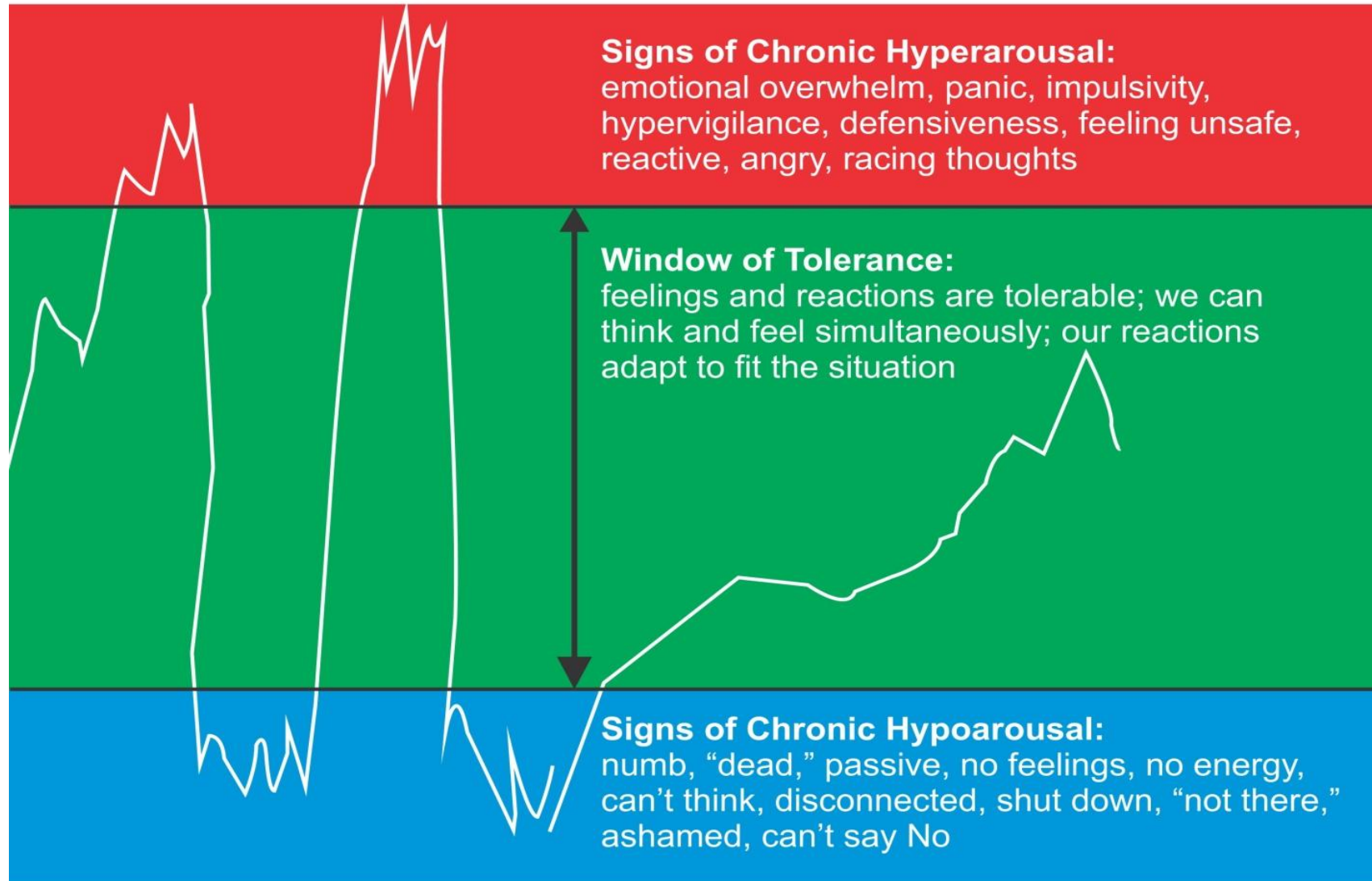
Mental and Neurological Health

- **Benefits and Risks of Psychotropic Medications:**
 - Anti-psychotics
 - Anti-anxiety
 - Anti-depressants
- **Questions for the Primary Care Physician:**
 - How will we know that it is effective and helpful?
 - What will we observe if there are unacceptable side effects or risks e.g. Akathisia?



Trauma Closes The Window of Tolerance

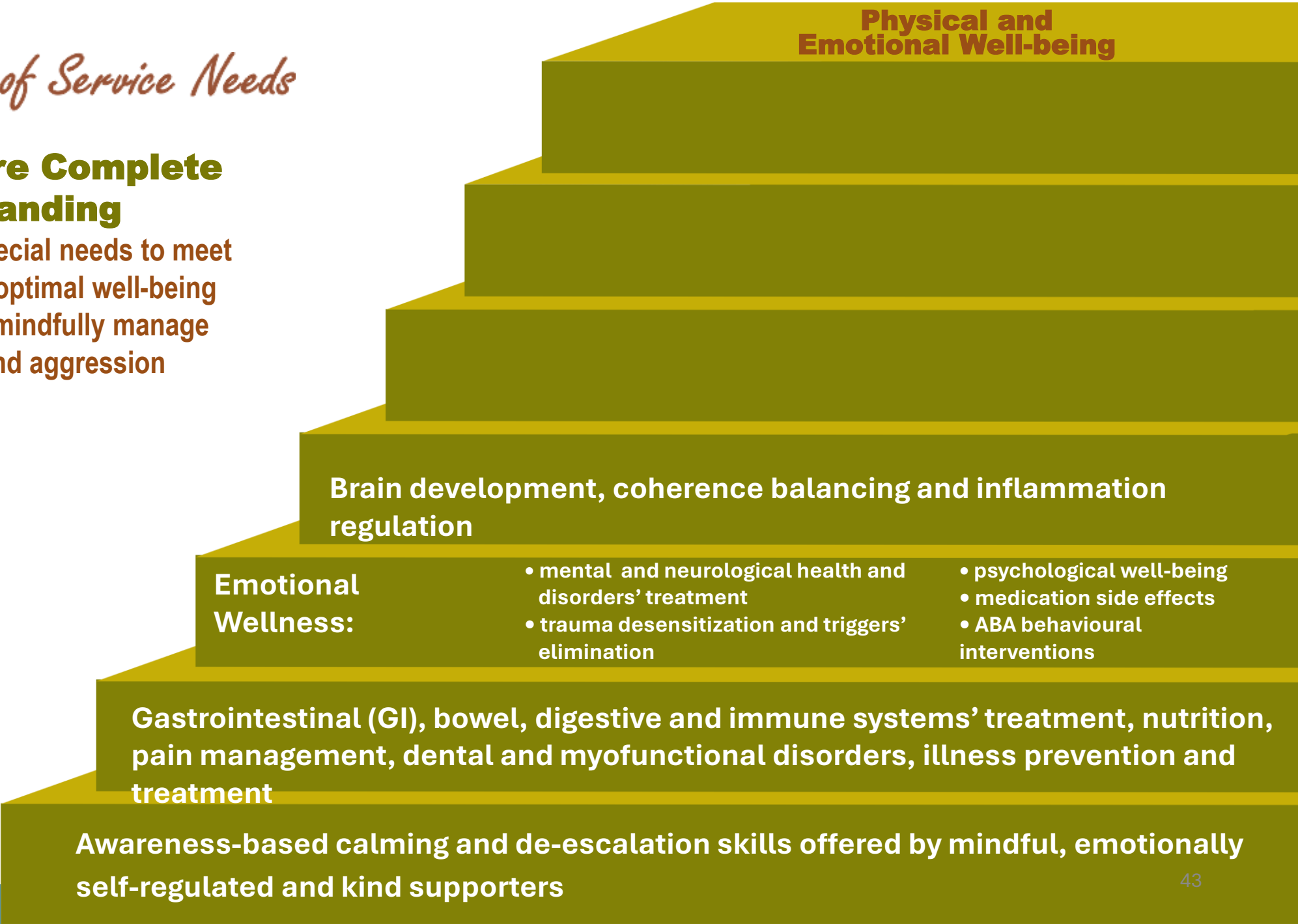
After trauma, the nervous system remains prepared for danger (Ogden, Minton & Pain, 2006)



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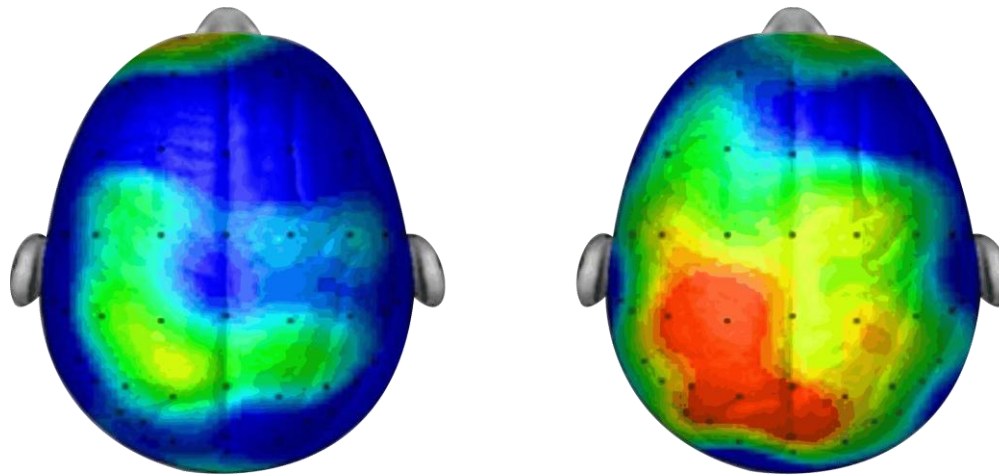
Brain Coherence

i.e. Many Parts of the Brain ‘Talking’ to Each Other

“Like you, I need to be able to understand and process information”.

This requires optimal Brain Functioning e.g.

- neurogenesis (new neurons)
- neuroplasticity (more complete neuro networks)
- neuro electrical stimulation (brain firing)
- neurochemicals production (endorphins, dopamine, serotonin, oxytocin)
- Hertz (Beta, Alpha, Theta, Delta)



(Brain MRIs before & after
20 minutes of exercise)



Neuroscience also near unanimously concurs that neurogenesis, neuroelectric stimulation, neurochemicals' production, and neuroplasticity are, with appropriate training and conditioning, not only possible but highly predictable to measurably enhance cognition, empathy and emotional self regulation.

Reference:

N. Doidge – *The Brain's Way of Healing*

D. Siegel – *The Mindful Brain*

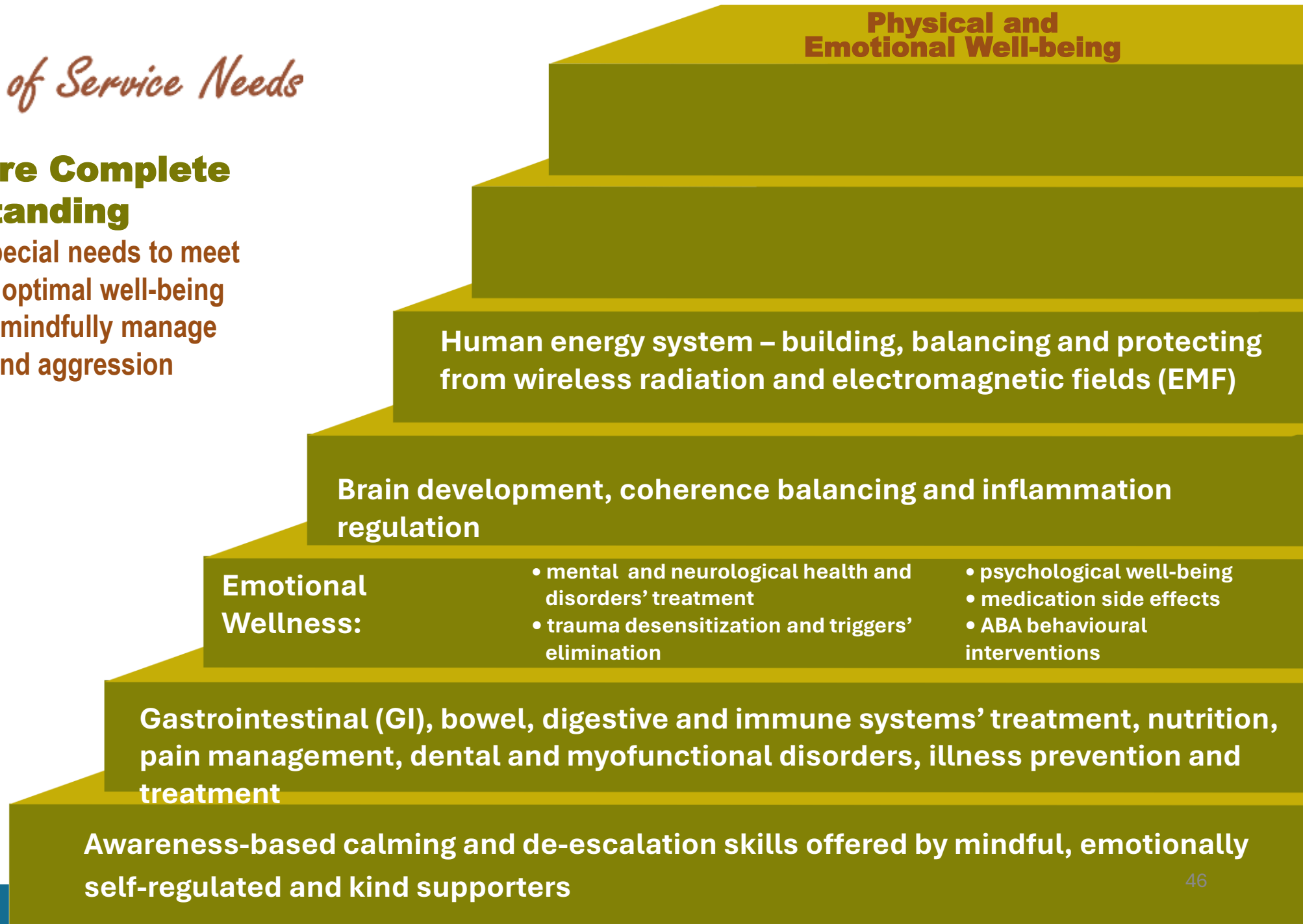
D. Eagleman – *The Brain*



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Human Energy – Building, Balancing and Protection

Protection from Environmental Toxins

- e.g. - reduce electromagnetic energy fields (EMF)
(a.k.a. dirty electricity)
- reduce Wi-Fi and cell phone radiation



The Bioinitiative Report 2012 links EMF Exposure to Autism concluding: Based on strong evidence for vulnerable biology, in Autism, EMF/ Radio Frequency Radiation (RFR) can plausibly increase Autism risk and symptoms. "While we aggressively investigate the links between Autism disorders and wireless technologies, we should minimize wireless and EMF exposures for people with Autism disorders, children of all ages, people planning a baby, and during pregnancy,"

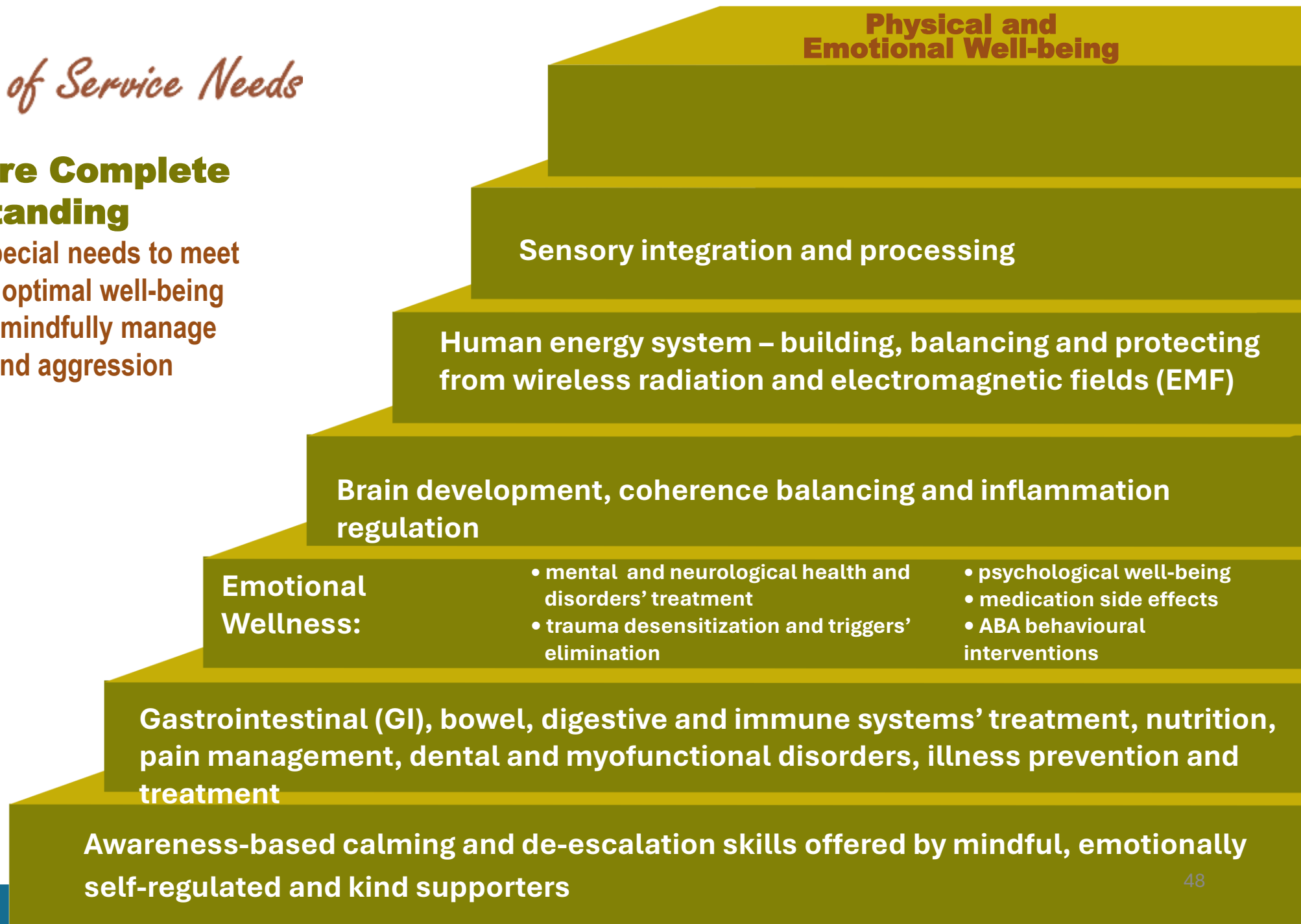
Martha Herbert, MD, PhD, Pediatric Neurologist Harvard Medical School.



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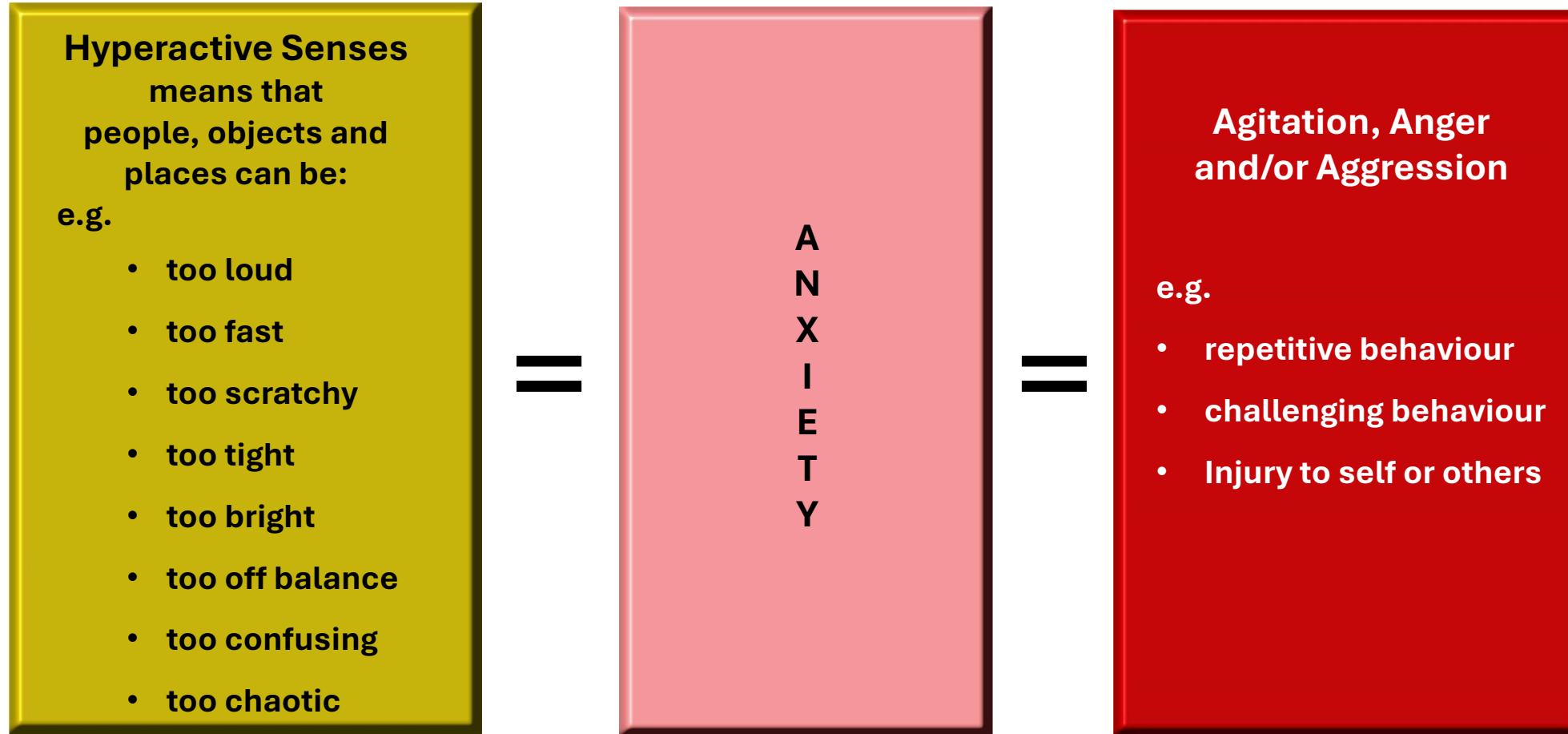
Filling the Gap – Sensory Integration and Processing:

Because research indicates that there is an 80% likelihood that individuals with ASD/DD will have sensory processing and integration challenges that cause and/or greatly influence anxiety and for some aggression, CCS advocates for screening, assessments and treatments by qualified Occupational Therapists.

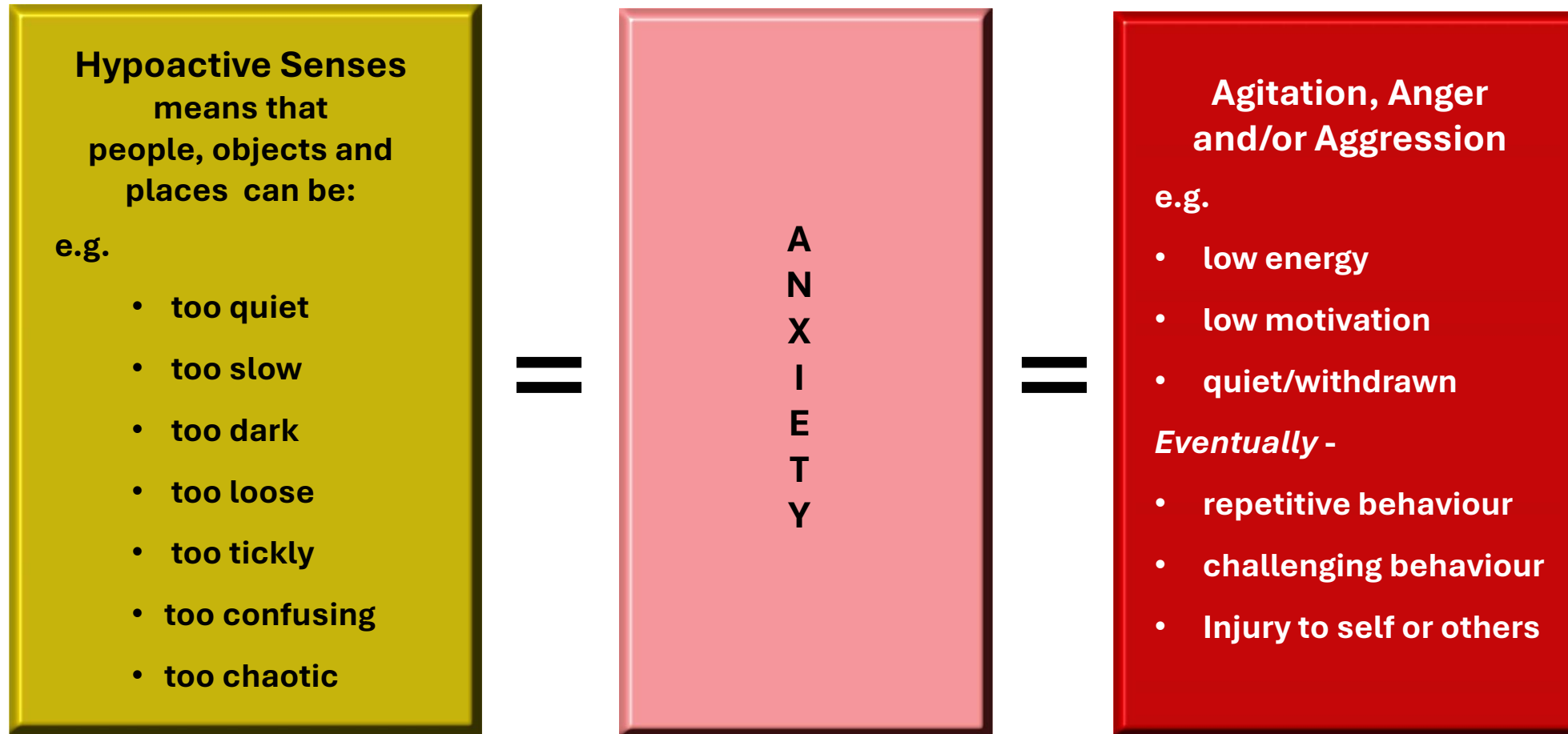
This treatment does not generally appear to be the case for many people supported throughout Ontario.



Hyperactive Senses Lead to Challenging Behaviours



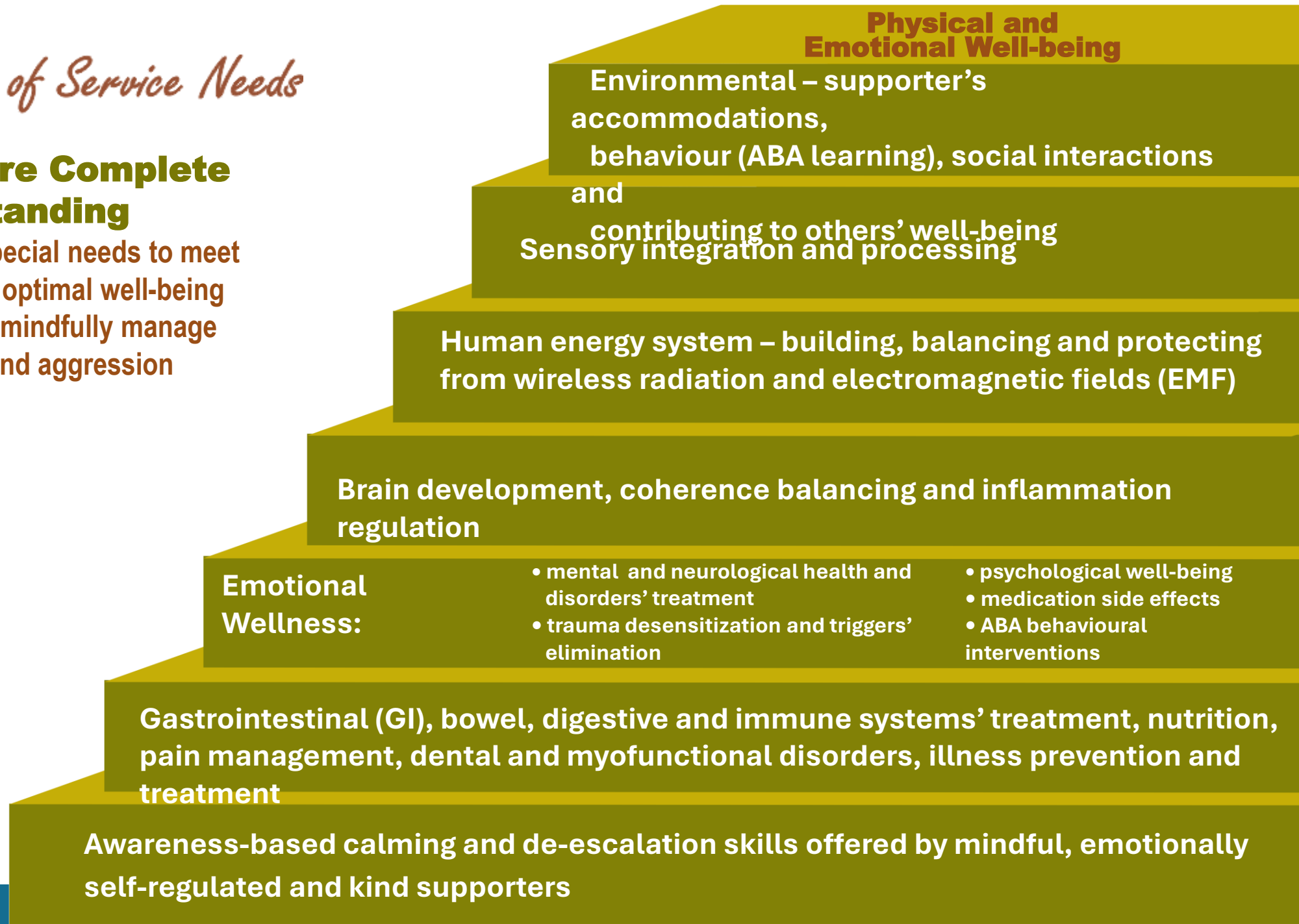
Hypoactive Senses Lead to Challenging Behaviours



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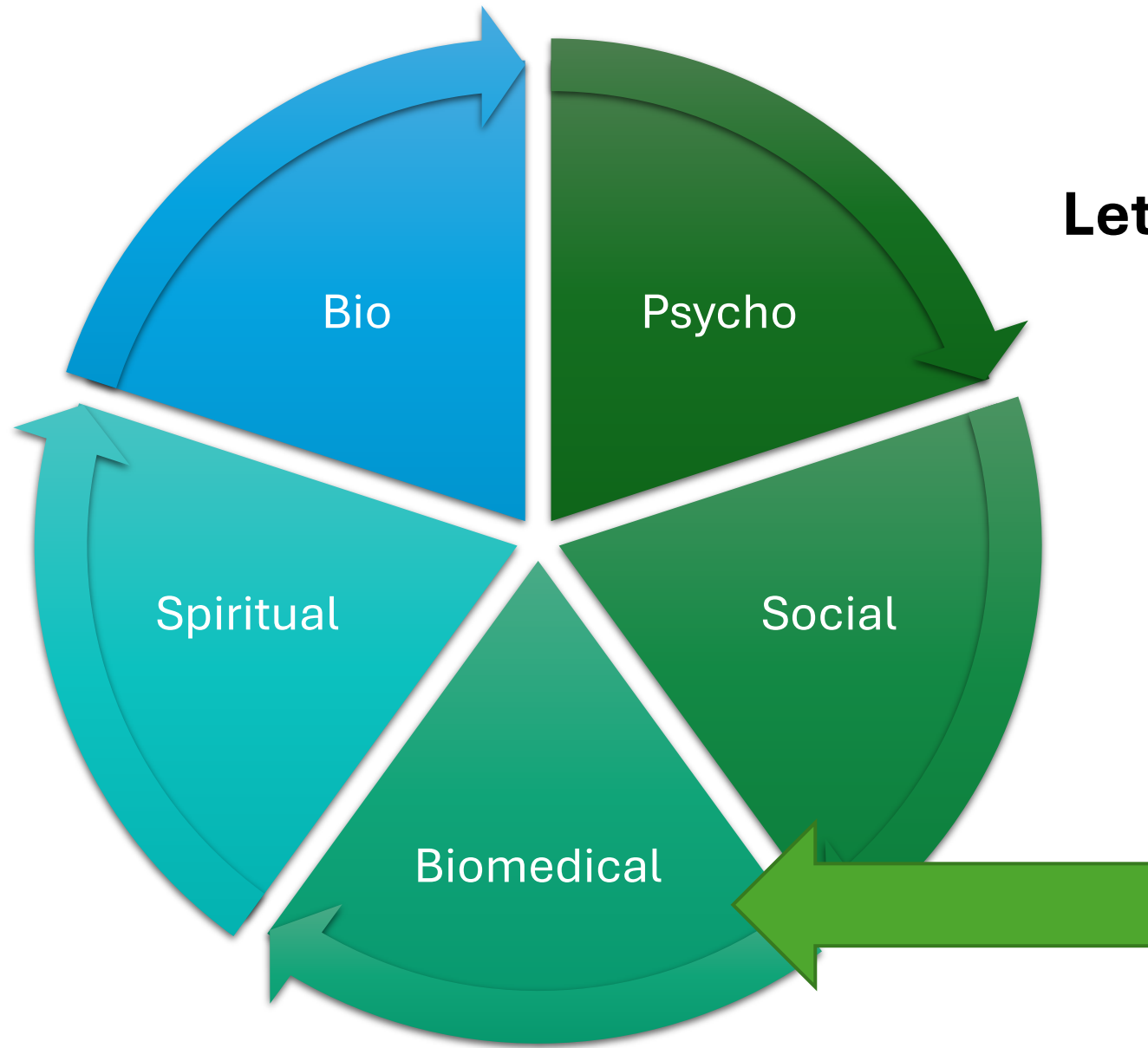
of the hierarchy of special needs to meet in order to facilitate optimal well-being and to prevent and mindfully manage anxiety, anger and aggression



Environmental Well-being

- Communications and Accommodations
 - Validate not Vet
 - Limited Choices (also Informed Choices)
 - Avoid 'No'
- Behavioural Learning
 - ABA, IBI, Best Practices
- Social Interactions
 - “Go slow in ways I know”
- Contributing to Well-being of Others
 - Socially Valued Roles
 - Meaning and Purpose





Let's Revisit Scenario

Conscious Care and Support Lens



What My Symptoms Are Saying:

“Even though I don’t control them, most of my behavioural symptoms are messages to you. My nervous system is asking you for certain kinds of support to have its specific needs met. Please listen to what it is doing. If you don’t, I can’t stop it from becoming anxious and frightened. And the main way that it has learned to calm its fears is to get irritated, angry and even aggressive. I hate when it does that but the calm that follows my aggression makes me feel normal again. Please help me to find a better way.”

