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Resilience for Life

Be Kind To Your Mind

Episode 4: The Physiology of Emotion

A Petros Production

With

Prof Jo Clarke, Dr Maxine Daniels, Di Gammage, Ed Simpson,

Tracy Brookes and Mark Campion

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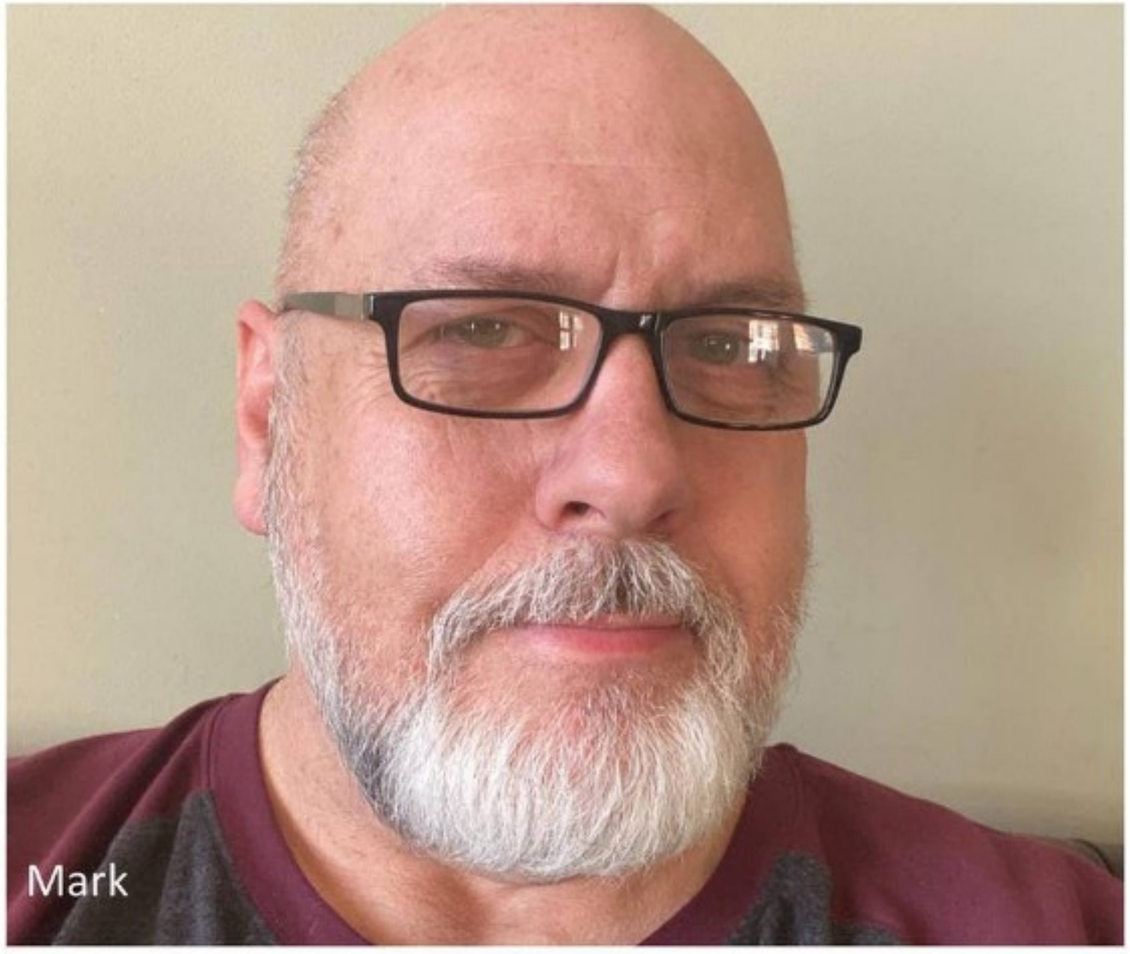

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Laura

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Tom

https://www.tomlininsh.co.uk

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The BKTYM Mission

To share the information and the skills we need to look after our minds in the same way we look after our bodies, so that no matter what life throws at us, we can (mostly) thrive!

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The Episodes

Episode	Title	Date	Episode	Title	Date
1	What is resilience?	11 May	6	The four sights	15 Jun
2	**Your brain and your mind**	**18 May**	7	Compassion and mindfulness	22 Jun
3	Emotion and intuition	26 May	8	Cognitive skills	29 Jun
4	The physiology of emotion	1 Jun	9	Parents special	6 Jul
5	Emotional regulation	8 Jun	10	A celebration	13 Jul

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The BKTYM – The Process

- Each episode has an associated workbook and exercises from Tom that will be downloadable from https://petros.org.uk/**be-kind-to-your-mind** soon after each episode. Use it however suits you best
- The idea is for you to create your own resource to refer back to whenever you need
- If you miss an episode, a recording of it will be available for a short period (roughly a month) for you to view again. Your organisation will circulate the details for access. Please be aware that each episode is recorded!
- We will be using Mentimeter, an interactive software that allows you to participate anonymously.

Where in Europe are you calling from?

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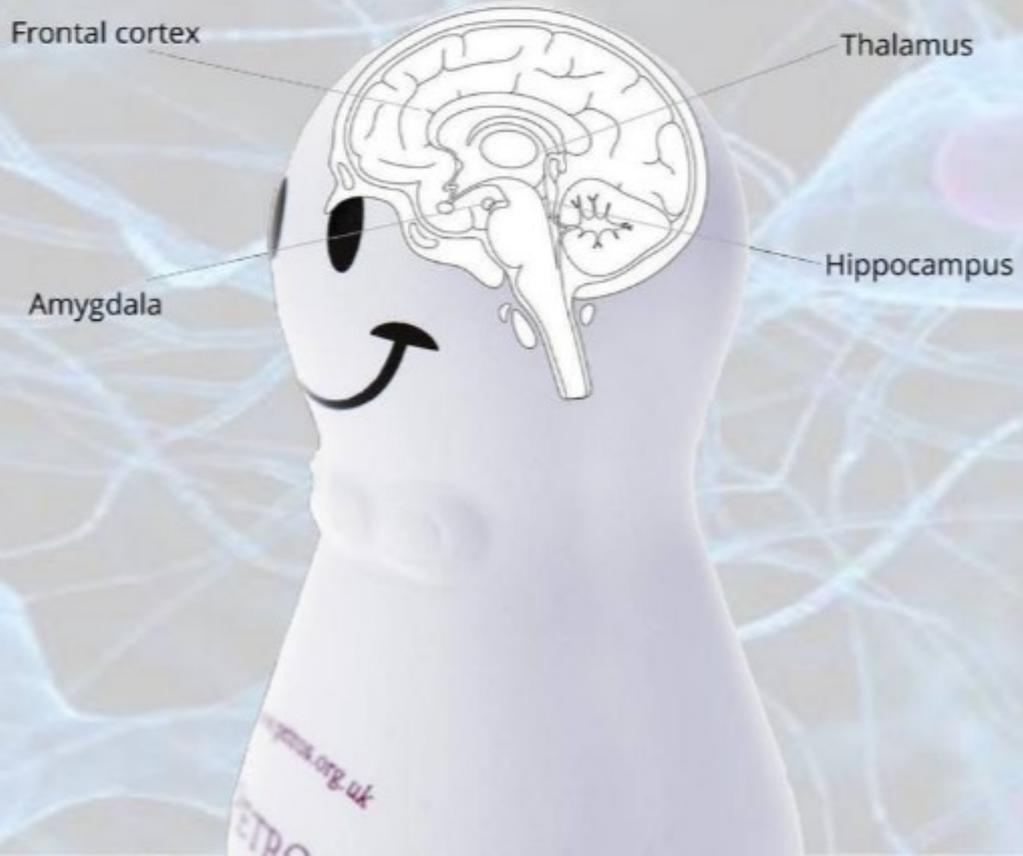
E4: The Physiology of Emotion

Principle

Understanding the relationship between our emotions and our brain chemistry can help us regulate both.

This week, brain chemistry; next week emotional regulation!

Today's Session



Neurotransmitters (and **Hormones**)

- Adrenaline (and Cortisol)
- Dopamine
- Oxytocin
- Endorphins
- Serotonin

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Adrenaline (and Cortisol)

- Is the Fight or Flight Neurotransmitter
- Increases heart rate and blood flow
- Gives a physical boost
- Is produced when we are excited as well as scared
- Is always present in our systems
- Increases when the demand to perform increases
- Cortisol is an anti-inflammatory
- It supresses non-vital functions at times of high demand (digestion, growth, immune response)

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How thinking influences the production of adrenaline and cortisol: An experiment

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Dopamine

- Associated with motivation, success and reward (we get a rush of it when we achieve something)
- It has a role in wakefulness
- We tend to repeat behaviours that lead to dopamine release
- Dysfunction in the dopamine system is linked with depression, bipolar disorder, schizophrenia and ADHD

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Endorphine

- Released during exercise, excitement and sex
- Produces a sense of well-being and euphoria
- Supresses pain
- Also is a bit of a dis-inhibitor, supressing feeling of sham, vigilance and self-criticism

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- A bit like being drunk without the cost or after effects

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Oxytocin

- Associated with love and bonding (social connectedness)
- Modulates social behaviours
  - Maternal and paternal care
  - Aggression
  - Pair bonding
  - Sexual behaviour
  - Social memory and support
  - Trust
- Most promising brain system for psychotherapy

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Serotonin

- Is thought to be involved in how we process emotion – increasing positive emotional processing
- Helps sleep and digestion
- Low levels of this are implicated in depression – but it's complicated
- Affected by light exposure and exercise
- 95% originated in the gut – (gut feelings)

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How was that for you?

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recognised rumination
calming
blissful
relaxed less stressed
happy
chilled out
relaxed
peaceful
relaxing
sleepy
calm
unwinding
relaxation of body
be present
grounded
helpful

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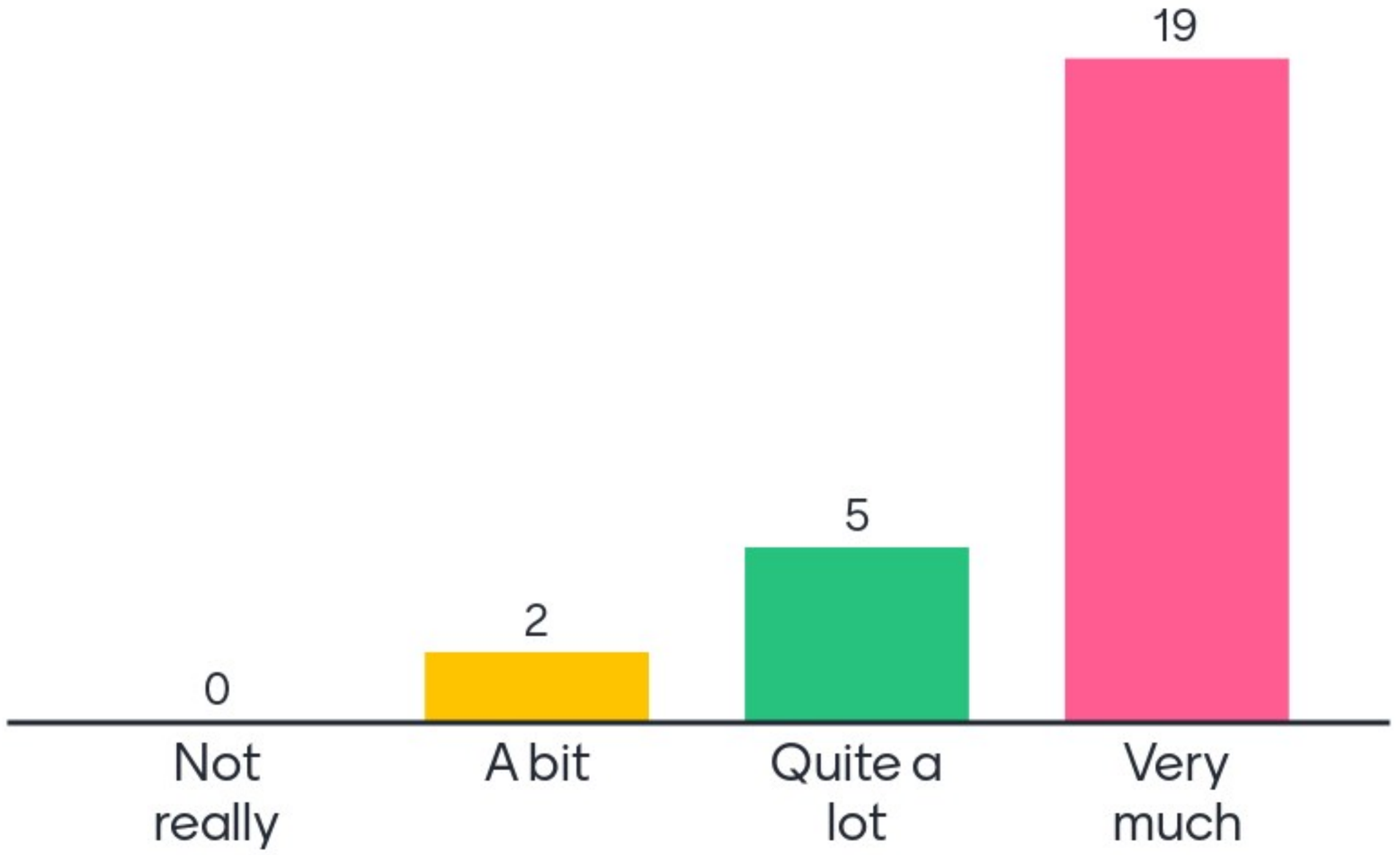
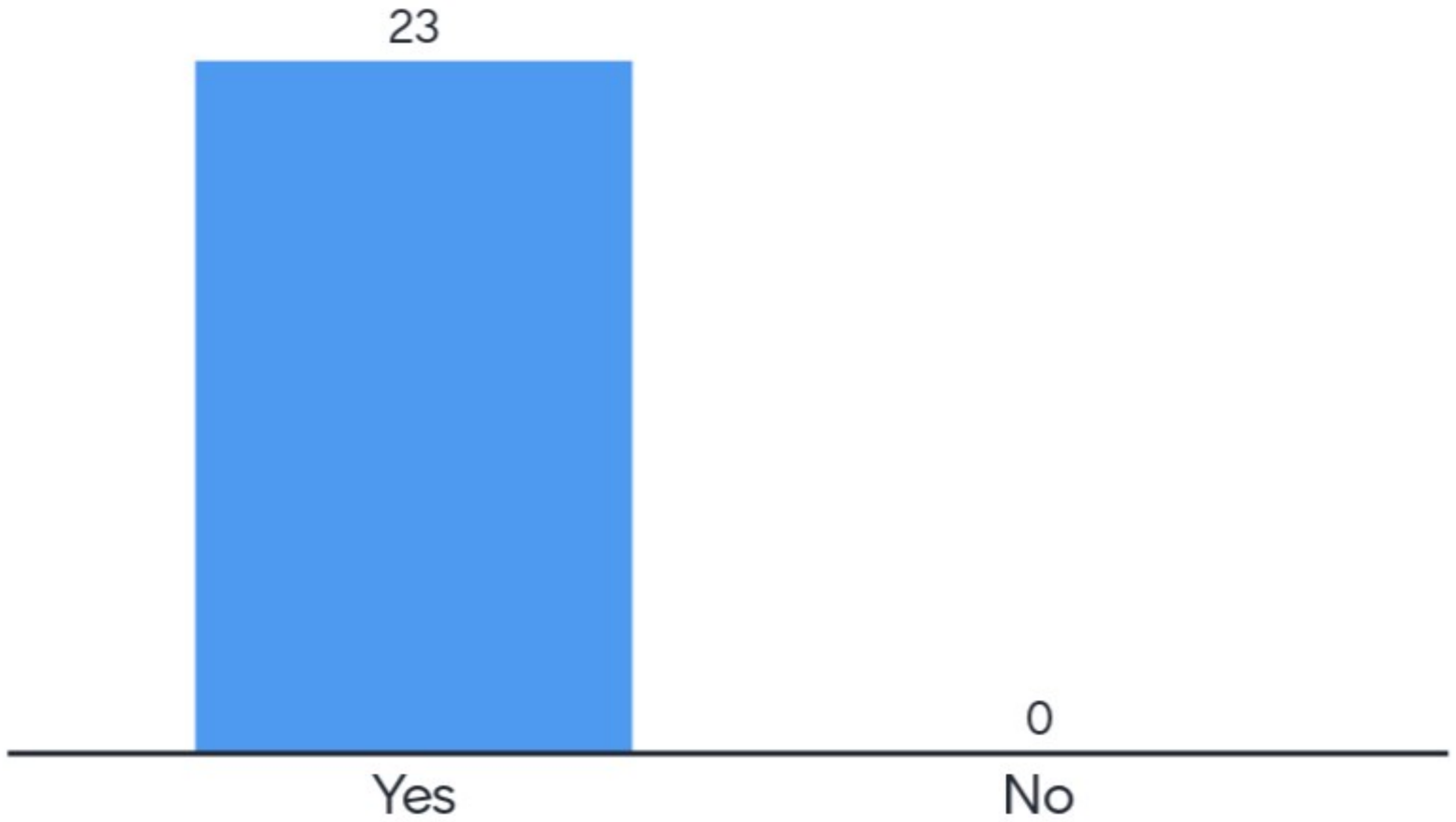
Some things to think about

- If you are feeling out of sorts, see if you can identify anything you might be doing or telling yourself that is compounding the problem
- Identify things that you can do to help you get your balance back
- What other things can you do to support you mind and brain do the best job for you? (later episodes will help with this)

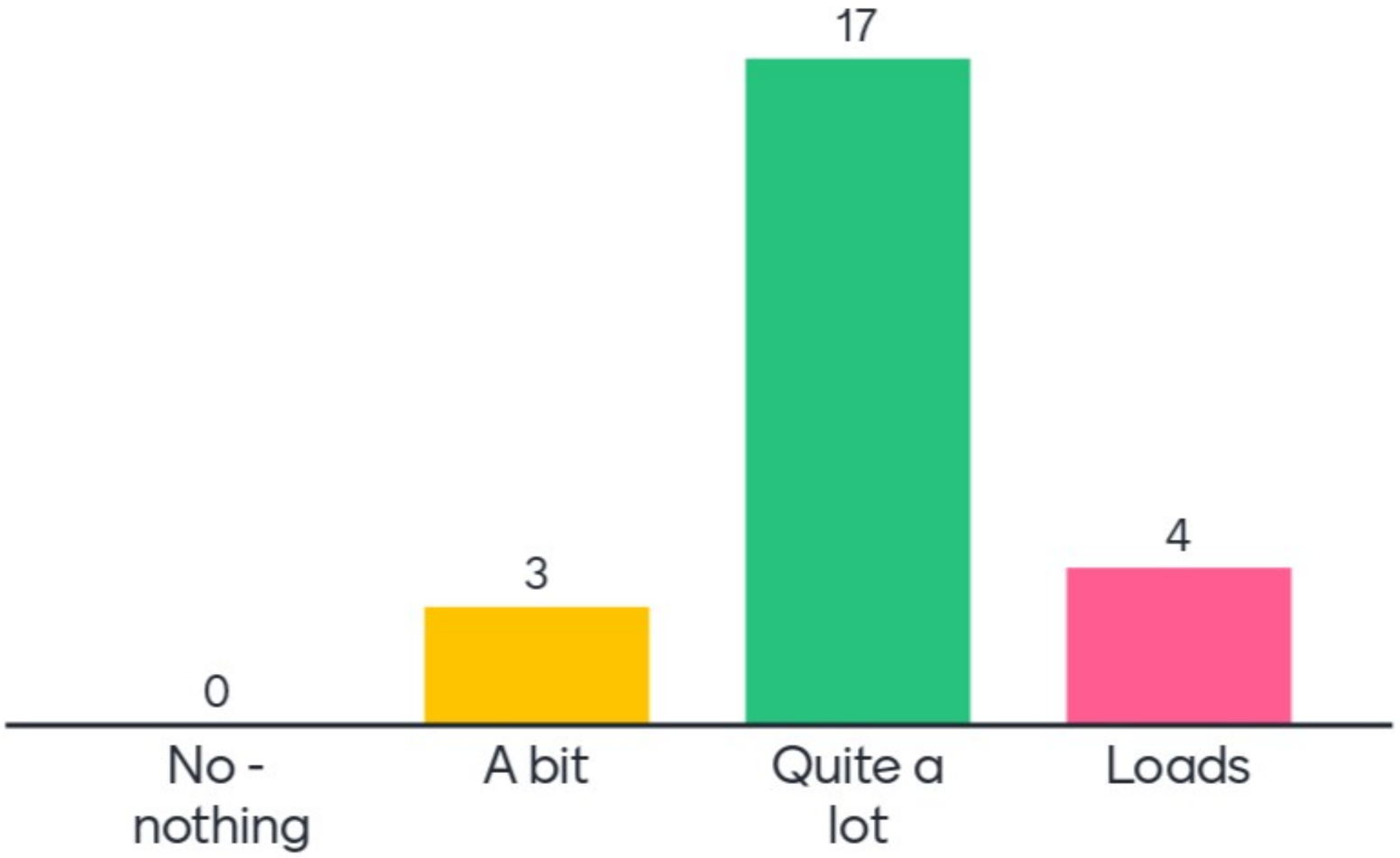
Did you enjoy today's episode?



Would you recommend this episode



Did you learn anything new?



Any other comments

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Very enlightening

Great session - loved the meditation

Thank you again, it was lovely this week

best session yet - fabulous

Looking forward to sessions on how to manage the mond

Thank you Mark, really enjoyed the exercise

I like learning about the chemicals, it's not just thinking

Thank you. I missed the first 3 sessions, but this was awesome

Definitely going to attend the other sessions!

Any other comments

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Thank you! Very informative and practical session

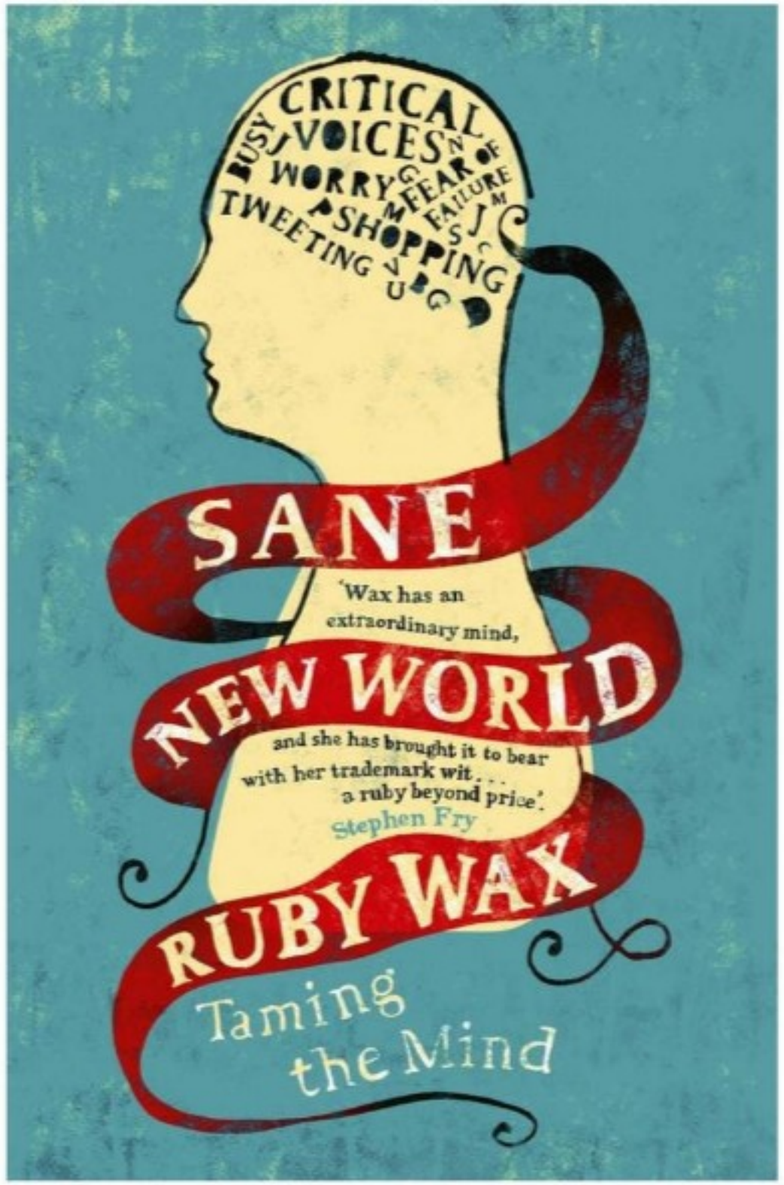
nice to spend time looking after your mind

Thank you very much for giving us practical tips, I can implement immediately.

Very interesting and such a beautiful exercise!

This was a really good session today. Very interesting. Thank you

Excellent to know hoe the mind affects the body


CRITICAL VOICES
BUSY
WORRY
FEAR OF FAILURE
SHOPPING
TWEETING
SANE
'Wax has an extraordinary mind,
NEW WORLD
and she has brought it to bear with her trademark wit . . . a ruby beyond price'.
Stephen Fry
RUBY WAX
Taming the Mind

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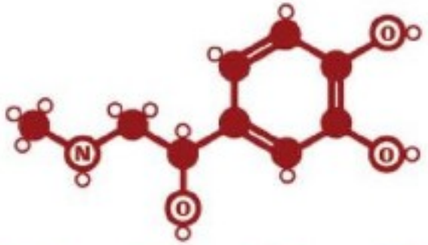
STRUCTURE KEY: Carbon atom · Hydrogen atom · Oxygen atom · Nitrogen atom · Rest of molecule

ADRENALINE
Fight or flight neurotransmitter

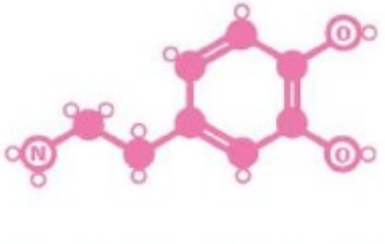


Produced in stressful or exciting situations. Increases heart rate & blood flow, leading to a physical boost & heightened awareness.

NORADRENALINE
Concentration neurotransmitter

Affects attention & responding actions in the brain, & involved in fight or flight response. Contracts blood vessels, increasing blood flow.

DOPAMINE
Pleasure neurotransmitter



Feelings of pleasure, and also addiction, movement, and motivation. People repeat behaviours that lead to dopamine release.

SEROTONIN
Mood neurotransmitter

Contributes to well-being & happiness; helps sleep cycle & digestive system regulation. Affected by exercise & light exposure.

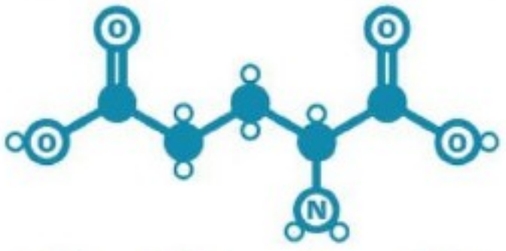
GABA
Calming neurotransmitter

Calms firing nerves in CNS. High levels improve focus; low levels cause anxiety. Also contributes to motor control & vision.

ACETYLCHOLINE
Learning neurotransmitter

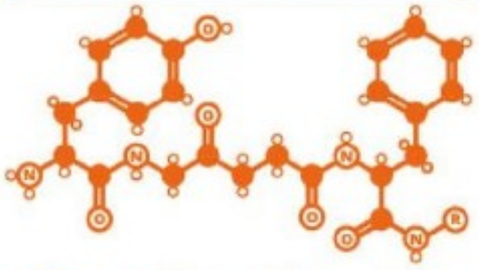
Involved in thought, learning, & memory. Activates muscle action in the body. Also associated with attention and awakening.

GLUTAMATE
Memory neurotransmitter



Most common brain neurotransmitter. Involved in learning & memory, regulates development & creation of nerve contacts.

ENDORPHINS
Euphoria neurotransmitters



Released during exercise, excitement, & sex, producing well-being & euphoria, reducing pain. Biologically active section shown.

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