

Brain Group – Part 1

An introduction for parents
Kim Griffin



© GriffinOT 2021

(1)

Me



- Kim Griffin
- Occupational Therapist
- Qualified in Australia in 2003
- Worked in Australia, UK, Ireland
- Sensory Integration Certified
- Currently - School based OT & online training and resources
www.GriffinOT.com



© GriffinOT 2021

(2)

Talk Aims

- Background to brain group
 - Regulation
 - Neurology
 - Development of self-regulation
- Brain group outline
- Using it at home



© GriffinOT 2021

(3)

Regulation

How Does it Develop?



© GriffinOT 2021

(4)

What is regulation (my definition)

- The ability to monitor and adjust your level of arousal to maintain homeostasis.
- It requires an understanding of yourself, the environment and others.
- And a feeling of safety.

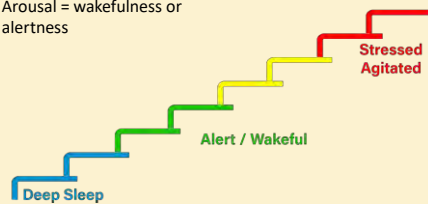


© GriffinOT 2021

(5)

Regulation supports arousal

- Arousal = wakefulness or alertness



© GriffinOT 2021

(6)

How do we support infants?



© GriffinOT 2021

(7)



How do we support infants?



© GriffinOT 2021

(8)



- Meet their needs
- Respond quickly
- Support regulation
- Secure attachments

What's going on here?



© GriffinOT 2021

(9)



Play is essential!!



© GriffinOT 2021

(10)



- Connection
- Regulation
- Language

It starts with co-regulation



Co
regulation

Self
regulation



© GriffinOT 2021

(11)

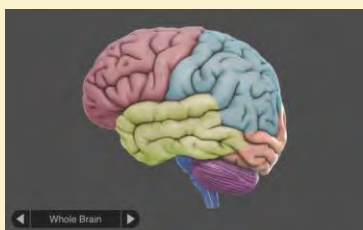


A little neurology 😊

© GriffinOT 2021

(12)





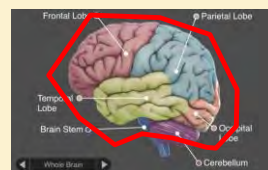
© GriffinOT 2021

(13)



Brain – Cortex

- Sections
- Touch
- Proprioception
- Visual
- Speech
- Movement



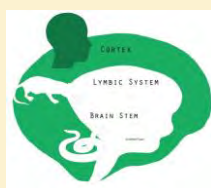
© GriffinOT 2021

(14)



Brain - Cortex

- Thinking part of brain
- Conscious decisions
- Essential for learning
- Sensory discrimination



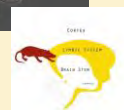
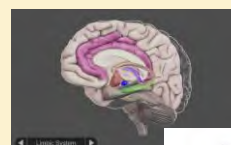
© GriffinOT 2021

(15)



Brain – Limbic System

- Old mammalian brain Emotions
- Behaviour
- Motivation
- Long term memory
- Smell



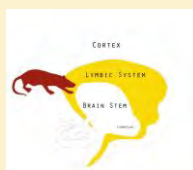
© GriffinOT 2021

(16)



Brain – Limbic System

- Survival!
- Protection!!
- Sensory Registration
- Sensory Modulation



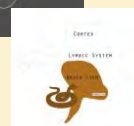
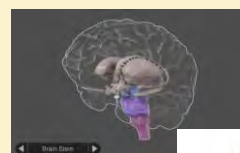
© GriffinOT 2021

(17)



Brain – Brain Stem

- Oldest part
- Reptile
- Keeping us alive
- Breathing
- Heart beating
- Hunger
- Reproduction
- Some sensory Registration

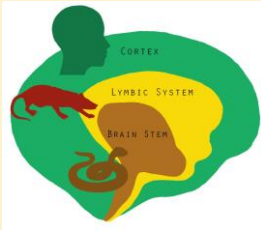


© GriffinOT 2021

(18)



Brain



Thinking part
Conscious thought

Directing threats!!
Survival

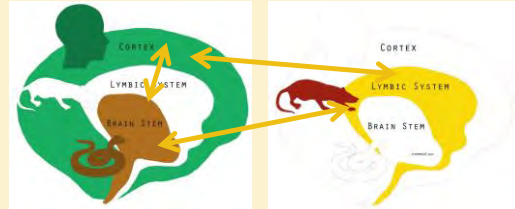
Unconscious



© GriffinOT 2021

[19]

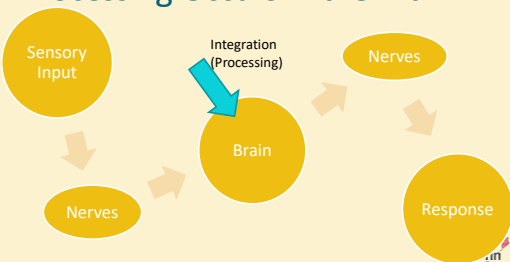
Brain – All parts ‘talk’



© GriffinOT 2021

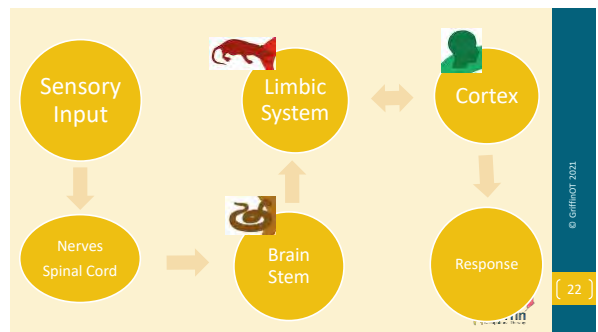
[20]

Processing Occurs in the Brain



© GriffinOT 2021

[21]



© GriffinOT 2021

[22]

Fight / Flight / Freeze Response

- Survival
- No control
- Unconscious
- Keeps us safe!

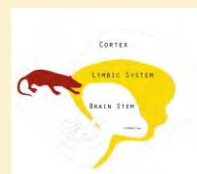


© GriffinOT 2021

[23]

Fight / Flight / Freeze Response

Occurs in the Limbic System



© GriffinOT 2021

[24]

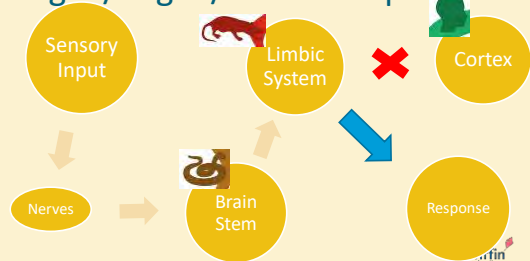
Fight / Flight / Freeze Response



© GriffinOT 2021

[25]

Fight / Flight / Freeze Response



© GriffinOT 2021

[26]

Fight / Flight / Freeze Response

- The fight-or-flight- or freeze response is a physiological reaction that occurs in response to a perceived harmful event, attack, or threat to survival.
- Children with modulation difficulties (typically sensitivity) can react to non threatening sensory input with a fight / flight response.
- For example, light touch can trigger this response

© GriffinOT 2021

[27]

Fight / Flight Response



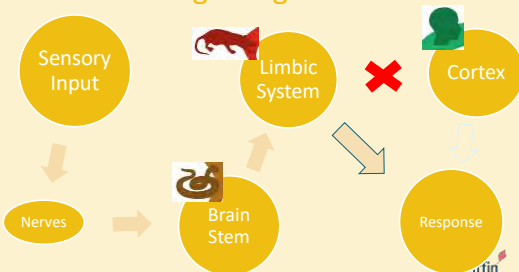
Automatic response with little cognitive control



© GriffinOT 2021

[28]

Fight Flight Freeze



© GriffinOT 2021

[29]

Brain Group – Part 2

An introduction for parents
Kim Griffin

© GriffinOT 2021

[30]

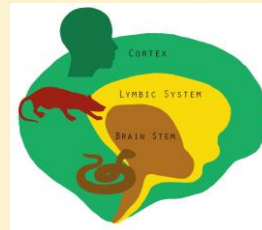
Linking Neuro to Regulation

© GriffinOT 2021

(31)



Poor cortical control



Reduced control

Reacts to non threatening situations / over-reacts

Unconscious

© GriffinOT 2021

(32)



Poor regulation

- Limbic system is usually less integrated with frontal lobes of the cortex – so less inhibition and less access to cognitive strategies
- Poor general awareness of self (e.g. tired/hungry)
- Can also be a fight/flight/freeze response – especially in trauma/neglect

© GriffinOT 2021

(33)



Why does this occur?

- Medical conditions change brain structure (e.g. autism has changes in thalamus and other brain connections, epilepsy, genetic conditions)
- Trauma/attachment changes wiring and limbic system is on higher alert
- Language processing makes it more difficult to express needs (e.g. toddler)
- Immaturity (e.g. developmental delay)
- Reduced play opportunities

© GriffinOT 2021

(34)



Poor awareness/theory of mind

- 'He made me do it'
- 'It is your fault!'
- Awareness of what supports regulation



© GriffinOT 2021

(35)



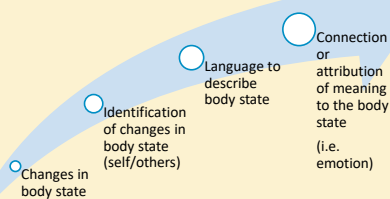
Developing Self-Regulation

© GriffinOT 2021

(36)



Attribution of meaning

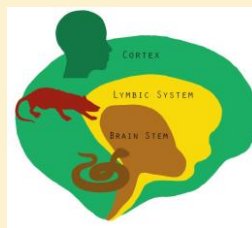


© GriffinOT 2021

(37)



Brain



Recognising own body states & labelling

Knowing what helps

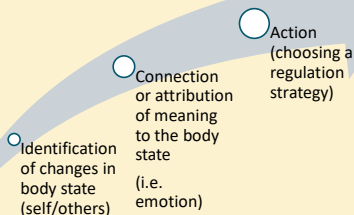
Changes body states / nervous system response

© GriffinOT 2021

(38)



Taking action

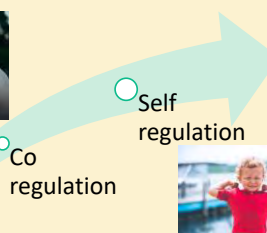


© GriffinOT 2021

(39)



Will always need support initially



© GriffinOT 2021

(40)



Taking action

- Sometimes calming down isn't helpful as it leads to loss of care/attention (i.e. when I'm upset I receive care, if I'm playing quietly I receive no attention)
- Sometimes it's more comfortable to stay in a higher state of arousal than to regulate
- Sometimes the increase isn't acknowledged

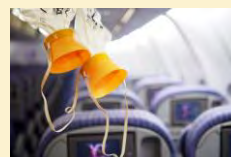
© GriffinOT 2021

(41)



Taking action

- It is important adults are also regulated – think of oxygen – your mask first.
- It takes practise to get it right!



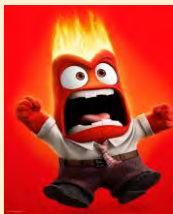
© GriffinOT 2021

(42)



We all lose it sometimes!

- Perfect example of poor cortical control over limbic system!



© GriffinOT 2021

(43)



Brain Group – Part 3

An introduction for parents
Kim Griffin

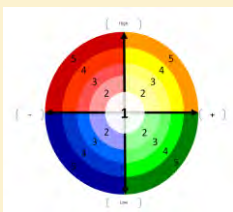
© GriffinOT 2021

(44)



Linking with Curriculum

- Is not a stand-alone resources
- Links to the emotion target
- Links with other attention and inhibition activities



© GriffinOT 2021

(45)



Objectives

- For children to identify how different activities make their body feel on the emotion target
- For children to identify how their body feels when their arousal state changes
- For children to understand they can make a choice over their responses

© GriffinOT 2021

(46)



Saturn

- Messy Play
- Identifying if their body is moving fast or slow
- Identifying which activities make their body move fast and slow
- Ability to link speed of movement to the emotion target

© GriffinOT 2021

(47)



Part 1 – Individual preferences

- Doing different activities and identifying where they fit on the emotion target
- Movement – yoga, press ups, jumping, spinning, breathing
- Food
- Smells
- Link calming activities to their quiet time

© GriffinOT 2021

(48)



Individual target



© GriffinOT 2021

49

Part 2 – Individual responses

- What **happens in my body** when I am in each colour?
- What happens to my movement?
- What about heart/breathing?
- What about voice/language?
- What about thinking?
- What **triggers** changes?

© GriffinOT 2021

50

Individual workbook



© GriffinOT 2021

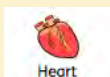
51

Part 3 – Rat Brain/Thinking Brain

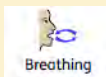
- An simpler way to teach children about their brain stem, limbic system and cortex.
- Describe each of these and what they are responsible for
- Discuss the fact that we don't control each other's brains

© GriffinOT 2021

52



Heart



Breathing



Toilet

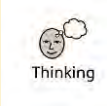
© GriffinOT 2021

53



© GriffinOT 2021

54





© GriffinOT 2021

55

Griffin








© GriffinOT 2021

56

Griffin

Part 3 – Rat Brain/Thinking Brain

- Link responses to choice and the brain
- Consider different choices in situations
- Link back to how your body feels when your arousal increases
- Link back to activities that help you to calm down

© GriffinOT 2021

57

Griffin

Let's talk about these children



© GriffinOT 2021

58

Griffin









© GriffinOT 2021

59

Griffin










© GriffinOT 2021

60

Griffin



Choice





© GriffinOT 2021

61

Griffin



Feeling







Silly

4



Silly

4



Angry

3

© GriffinOT 2021

62

Griffin



Choice





© GriffinOT 2021

63

Griffin



Feeling







Calm

1



Ready to Learn

1



Happy

1

© GriffinOT 2021

64

Griffin

Calming Down

- What could John do?
- What could Suzie do?
- Links back to their initial ideas on their emotion target

© GriffinOT 2021

65

Griffin

Do we need rat brain?



© GriffinOT 2021

66

Griffin

Brain Group

- Aims to explain to children how their brain works and why they respond in different ways
- Aims to teach them what helps their body to calm down and energise
- Aims to teach children they have a choice over their responses



© GriffinOT 2021

{ 67 }

At home

- Support your own self regulation first
- What do you do to stay calm
- What helps / doesn't help you?



© GriffinOT 2021

{ 68 }

At home

- Can use the quiet time activities which are individual to each child (movement, breathing, yoga, reading, puzzles)
- Can use language in books/movies to reinforce what part of the brain was used
- Can use the language to reflect on situations – never to shame, but as a reflection tool



© GriffinOT 2021

{ 69 }

Further Listening

- Dan Siegel (explaining the hand model)
<https://www.youtube.com/watch?v=f-m2YcdMdFw>
- Alan Watkins (explaining regulation from the bottom up in the workplace/and daily life)
<https://www.youtube.com/watch?v=q06YIWCR2Js>
- A journey through the nervous system
<https://www.youtube.com/watch?v=VAEmxt78bBI>
- Resources (movement and breathing videos)
<https://www.youtube.com/c/GriffinOT>



© GriffinOT 2021

{ 70 }