

Understanding the Neuropsychology of Adolescence: Good Practice for Parents/Carers

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Aims for this evening

- To reflect on how it might feel to be a parent/carer of an adolescent
- To learn about physiological and neurological changes that occur during adolescence
- To think about what might help support adolescents through this period of change and maturation
- To apply our learning from the evening to a case study

“ Parenting is probably the most difficult job you will ever do”

Webster-Stratton

(Dr. Carolyn Webster-Stratton is Professor and Director of the Parenting Clinic at the University of Washington. She is a licensed clinical psychologist and nurse-practitioner)

Think about your own
adolescence.

What **ONE WORD**
springs to mind?

Understanding Adolescence

How it might feel as a
parent/carer?

Pause for Thought

Think about

- What is your relationship like with your teenager?
- How is it making you feel and behave as a parent/carer?

“Adolescence is a time when intense emotions in the parent-teenager relationship are inevitable.”

Margot Sunderland (2012)

How it might feel as a parent/carer?

- Terribly excluded
 - Choose to spend time away from you
 - Advice is no longer sought
- Powerless and inadequate
- Confused and uncertain
 - Loss of control
 - How to maintain rules and sanctions
 - What works? What's normal?



How it might feel as a parent/carer?

- Jealous

- Their physical strength is increasing as yours is waning
- Their good times and opportunities are beginning

- Frustrated by a lack of gratitude

- They may not be until they are much older
....and others...

Understanding Adolescence

What is happening?

Defining Adolescence

The interval between the biological changes of puberty and the point at which an individual attains a stable, independent role in society.



Johann Wolfgang von Goethe wrote, “ *Treat people as if they were what they ought to be and you help them become what they are capable of being.*”

Key features of adolescence

Changes in the brain create four important qualities (Siegal, 2014):

Quality	Opportunity	Risk
Novelty Seeking	Increased motivation to try something new.	May lead to sensation seeking and risk taking that overemphasise thrill.
Social Engagement	Enhances peer connectedness and create new friendships	Can become isolated from adults.
Increased emotional intensity.	Enhanced vitality to life	Emotions can rule the day.
Creative Exploration	Out of the box thinking, new ideas and innovation.	Searching for meaning of life can lead to a crisis of identity, lack of direction and purpose.

What is happening?

1. Physiological and physical changes
2. Brain development
3. Developing identity



Physiological and Physical Changes

Starting the engines without a skilled driver

Earlier timing of puberty (due to improved child health) means the body is physically 'activated' but neuro-behavioural systems necessary for self control and emotional regulation are not yet mature.

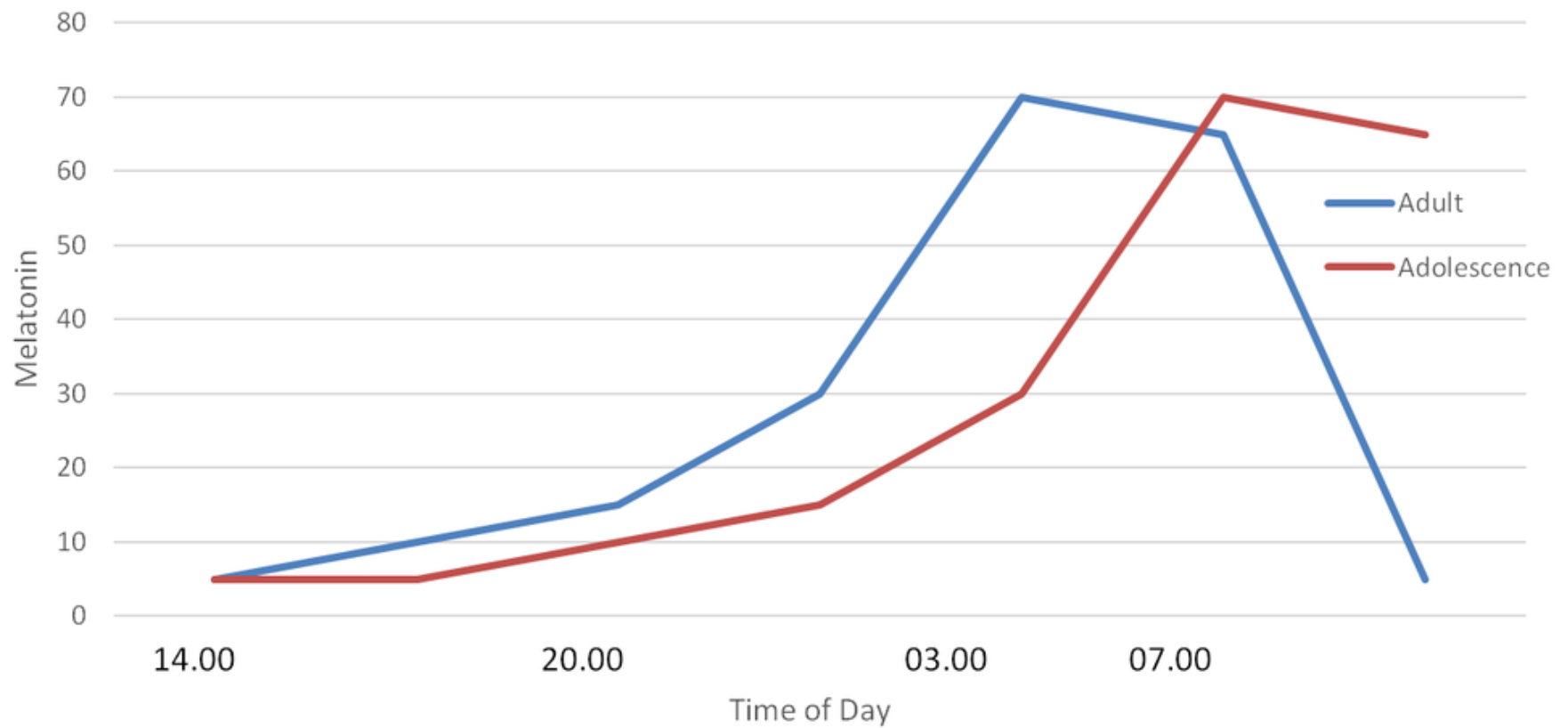
Sleep Deprivation

Sleep cycles change with the onset of puberty. Adolescents don't produce Melatonin (which helps sleep) until later at night which affects sleep

- Screen time affects production of Melatonin



Melatonin Secretion





What is happening?

Brain Development

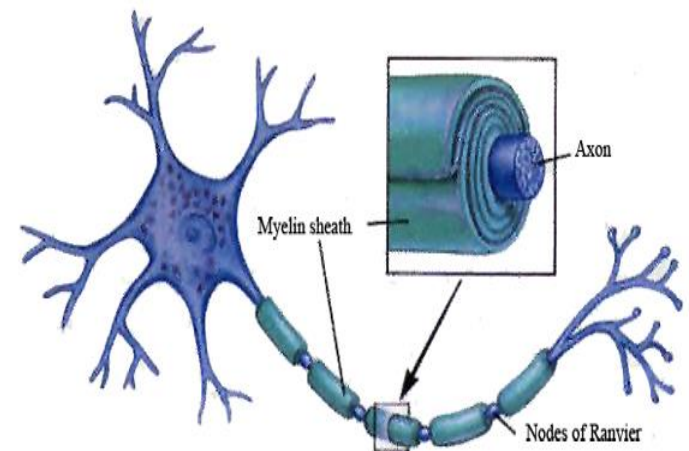
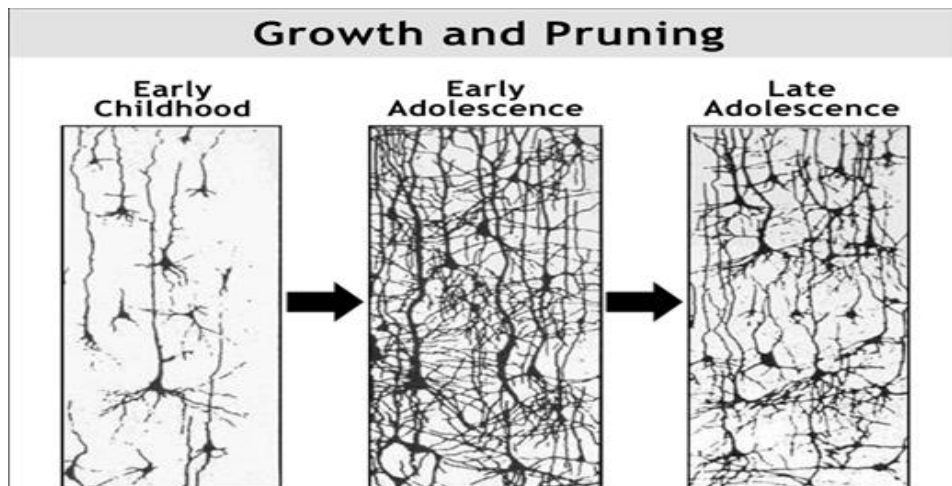
Adolescent Brain Development

- Adolescence is a transformative period in which individuals go from being open to everything (childhood) to becoming expert in a few things (adulthood).
- **Adolescence is a prominent period of brain plasticity, neuronal growth and synaptic pruning.**

Re-modelling

- **Pruning** = a reduction in synaptic connections
- **Myelination** = myelin covers membranes among interlinked neurons and enables the passage of electrical flow

Creative exploration

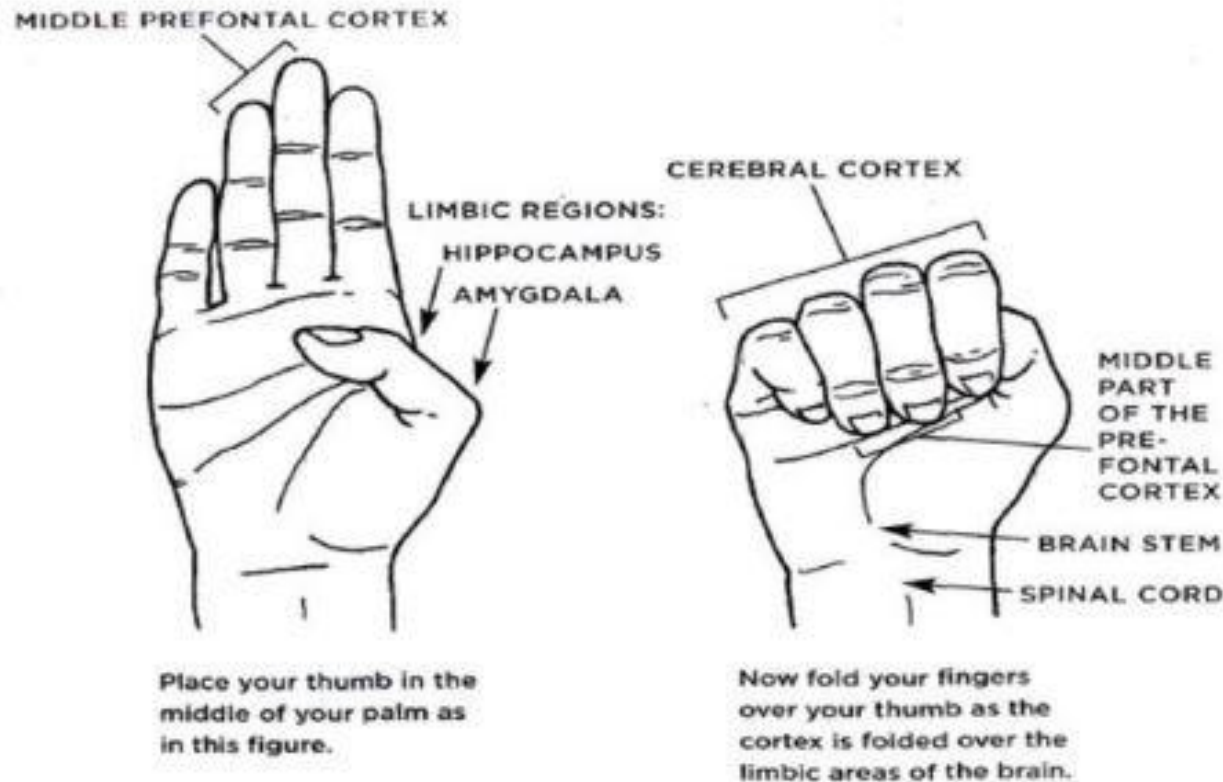




Impact of re-modelling

- Integration of the different parts of the brain
 - more aware and can think about life in more abstract and conceptual ways.
 - Eventually will lead to greater cognitive control enabling more space to pause and consider other options of response than an initial impulse
- How adolescents spend their time directly stimulates the growth of those parts of the brain.
- During re-modelling adolescents are likely to struggle with decision making, planning and regulation, particularly at times of stress.

A handy model of the brain

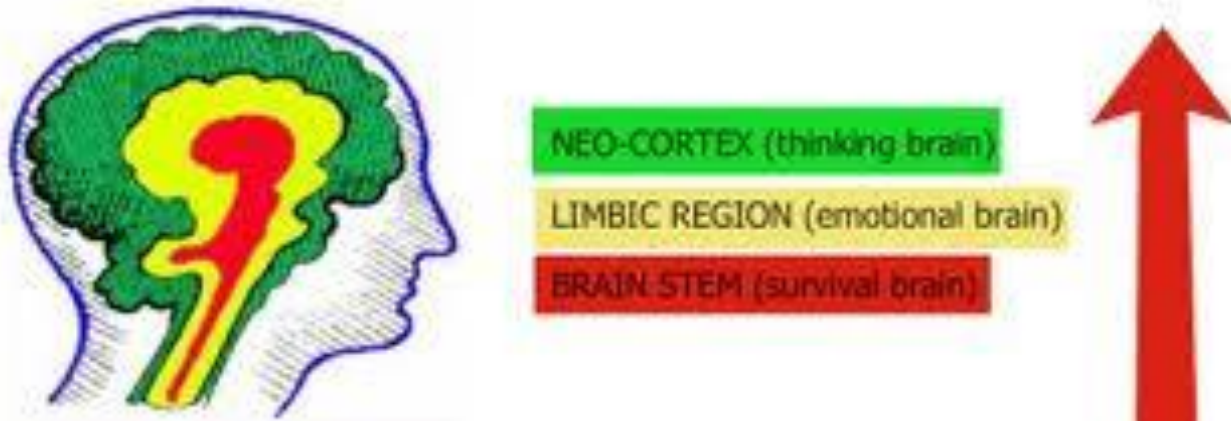


Siegel, D. (2012)

Adolescent Brain Development

Response to stress/distress

"Tri-une Brain Approach"



Where are you acting from?

Adolescent Brain Development

Response to stress/distress

Teenager acting from	Behaviour
Brainstem(Survival)	Run, lash out, withdraw
Limbic System (emotional brain)	Tantrums, dramatic behaviour
Neocortex (higher order thinking)	Impulse control, reasoning, reflection

Emotional Intensity

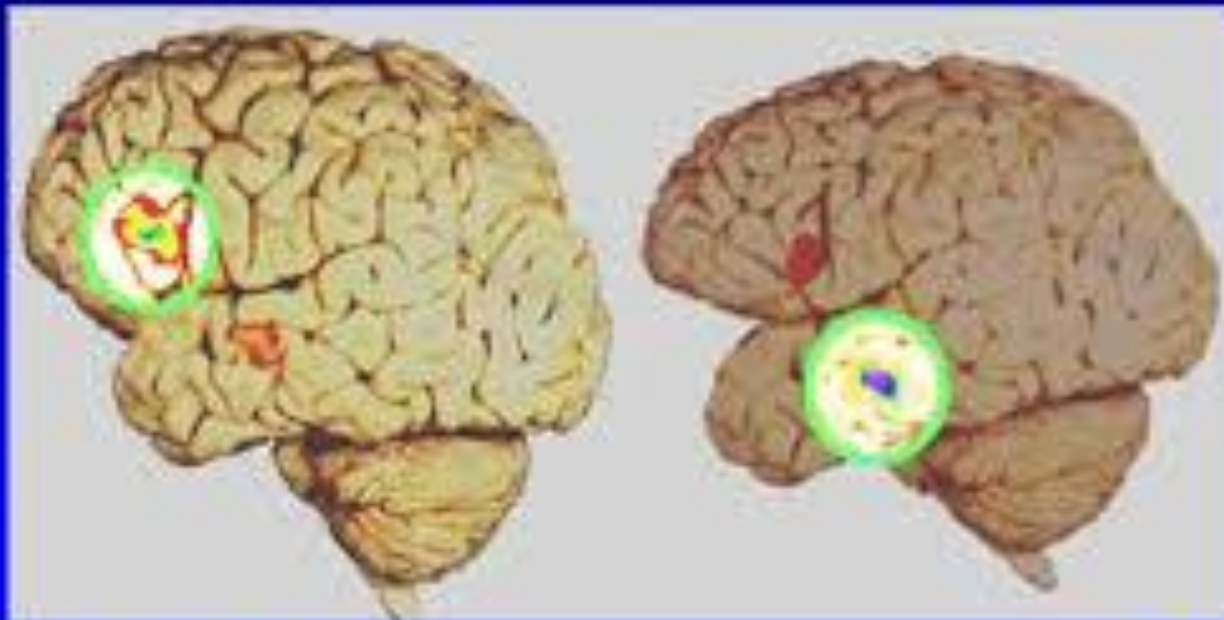
The Amygdala grows to **three** times it's size in adolescence: An important structure for emotional and social learning

Emotional
intensity

- More access to emotional information
- More susceptible to negative emotions related to exclusion (by peers)
- Less control
- Stressful events can have more impact than at other times



When Reading Emotion...
**Adults Rely More on the Frontal Cortex
While Teens Rely More on the Amygdala**



Deborah Engelen-Zeld, 2000.

NIDA

Risk taking



TEEN-AGE MOUSE

I CAN TOTALLY
GET AWAY
WITH THIS!



Dopamine

Novelty
seeking

Impact of increased drive for reward

- Impulsivity – behaviours can occur without reflection (all gas pedal and no breaks)
- Hyperrationality – PROs far outweigh the CONs and the risk seems worth it.

BUT (pre-frontal cortex)

- Neuro-behavioural systems necessary for self control and emotional regulation
- Cognitive or reasoning area of the brain important for controlling impulses and high-risk behaviour

...ARE NOT YET MATURE

Social Brain and Risk Taking

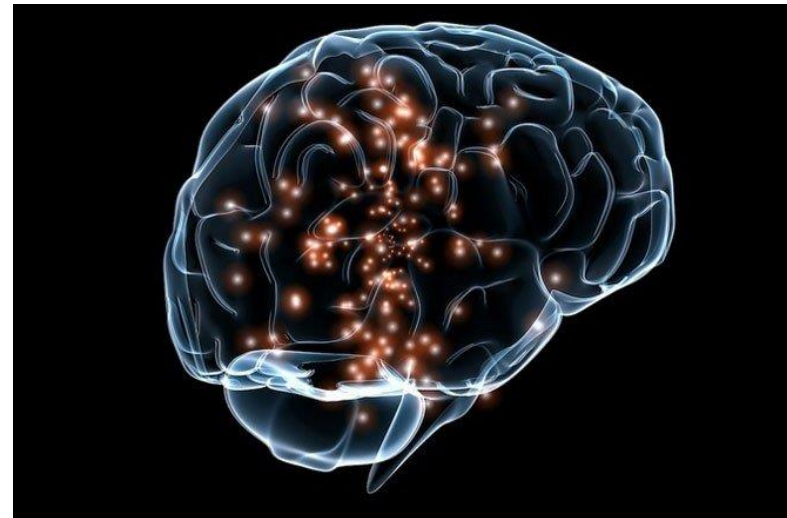
Risk taking behaviours significantly increase in the company of peers



- More likely to make risky decisions than adults in hot contexts (with peers or high emotion)
- Susceptibility to peer influence
- Three times as many risks with peers than on their own.

Hardwiring for adventure

- Taking risks is essential for our survival and that of our species



What is happening?

A new Identity

A New Identity

- Parents are no longer who the young person wishes to emulate
- 'Ideas and ideologies, religions, systems, fashions and role models are sought' Phillips, A. (2008)
- There is potentially a period of 'identity crisis' where nothing feels rightHe/she just feels different and possibly isolated



“You can’t begin to imagine how embarrassing it is to be seen with you.”

Feelings

Insecurity and isolation

‘I’m sad’

‘I feel lonely’

‘Nobody likes me at school’

‘Everybody laughs at me’

...’but I don’t know why’...

‘Anxiety and distress at the unpredictability and inevitability of it all’ (understandingchildhood.net)

Peer connectedness

- Relationships particularly sex increasingly important
- Increases drive to reward, novelty and risks
- Intense friendships groups are formed and change as they sort out who they are and where they belong
- Social connections keep us safe and optimise brain development.



“When I was a boy of 14 my father was so ignorant I could hardly stand to have the old man around. But when I got to be 21, I was astonished at how much he had learned.” (Mark Twain)

Activity

- Read the case study
- In groups answer the following questions:
 - How might Tracey's parents feel?
 - How can Tracey's changes in behaviour be described by changes in her brain? E.g. consider dopamine levels, amygdala, brain connectivity, frontal cortex.
 - How might the adolescent drives for social connectivity and identity development be influencing Tracey's behaviour?

Break

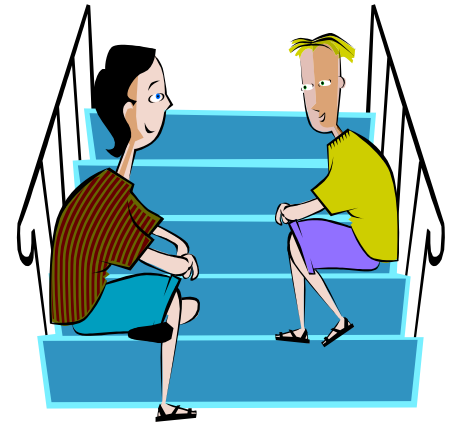


Understanding Adolescence

3. What might help?

What might help?

1. Offer safety (Secure base)
 - Resilience
 - Emotional Containment, validation
 - Consistency, Boundaries and Limits
2. Relationship
 - Communication, listening and empathy
 - Specific Praise
3. Thinking about peers
4. Understanding and empathy



Resilience

Your parenting up
to this point has
built important
resilience

Resilience is
the capacity
to transcend
adversity

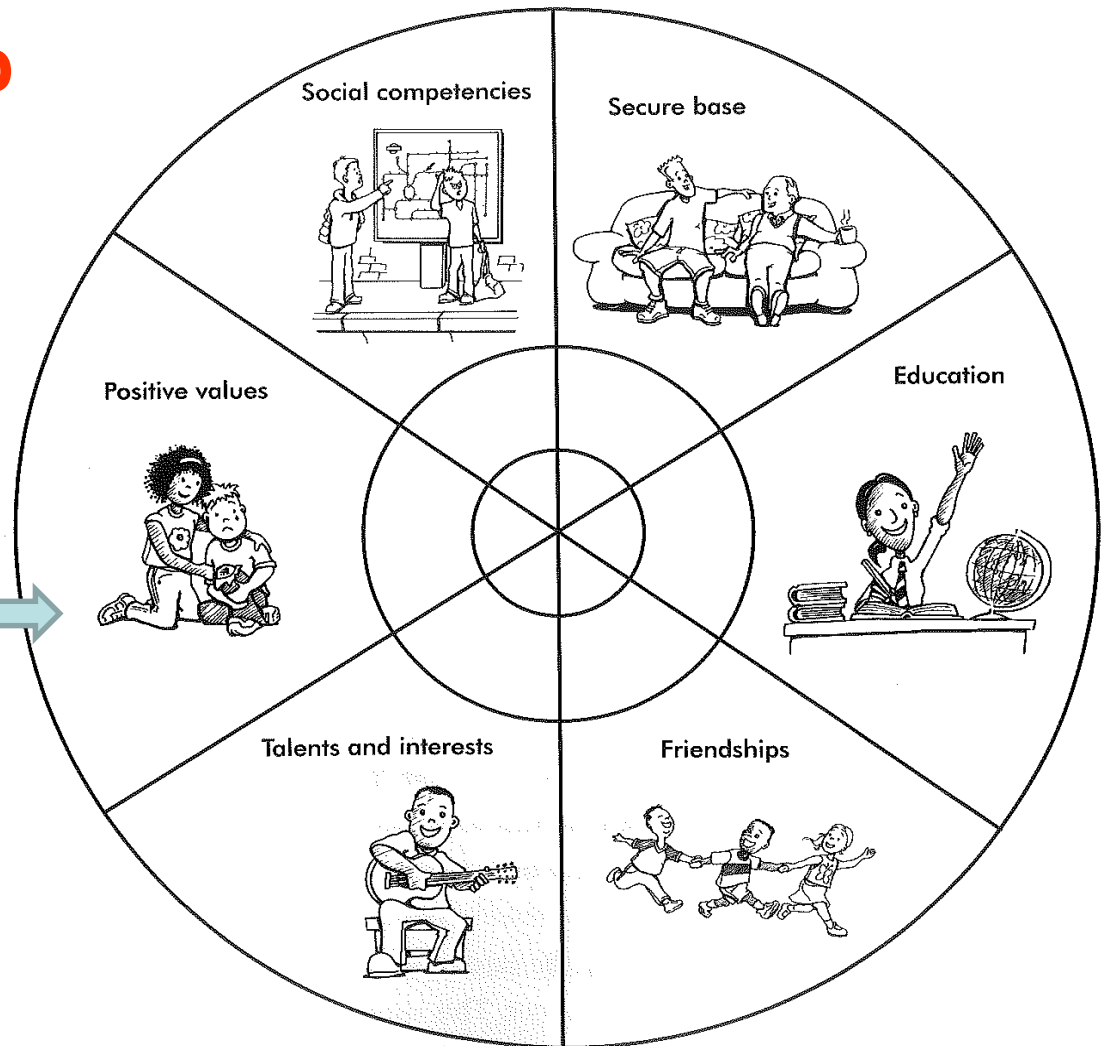


Figure 1.5 Six domains of resilience

Secure Base

- Home = a safe base providing **protection, care and understanding**
- Manage your own anxiety and fears
- Trust them and welcome exploration of personality
- **Teenagers need to feel safe, special and have their basic needs met**

‘Strong emotional support from the family is the most powerful weapon against (negative) peer pressure’

(understandingchildhood.net, 2011)

Emotional Containment

- **Containment** = receiving and understanding emotions
- Teenager needs the experience of knowing that **it's OK to have feelings, they can be tolerated, and moved on from**
- Helps to regulate emotions and to manage their own behaviour
- **Lend your adult brain.** Be an emotional barometer...Remember, they are confused about heightened emotions



Empathy

- *Attunement* to someone else's inner life
- Empathy helps teenagers to feel heard and understood and helps them to understand their own emotions

‘It must be hard when...’

‘I think you are furious with me about...’

‘I have noticed that you are not happy with that decision...’

‘I also find it hard to let things go sometimes...’

‘I wonder if you feel that was unfair....’

Boundaries and Limits

**‘(Adolescents) need supportive affection and interest from significant adults and consistently applied discipline that focuses on non-negotiable rules for safety and negotiable rules for social interaction’
(Thrive, 2014)**

Boundaries and Limits

Boundaries are still important

A different approach is needed as they want to *make own decisions* and *think for themselves*

- Aim is to help them learn “self-discipline”
- Parent may feel they have lost “influence” as teenager temporarily rejects their values
- Mostly we can only offer “opinions”

Boundaries

- Work best if **negotiated**
- **Explain your reasons** truthfully (e.g. safety). ‘Lend your adult brain’
- Limits change as they grow up
- Allow for some **exploration** and **risk-taking** but keep them safe
- Try to set similar limits to what friends’ parents are setting
- Don’t decide rules in the middle of a crisis
- Some issues will be **non-negotiable**, but **be flexible** on others

Broken limits

- Don't jump in, **listen** to your teenager
- Make consequences that **fit** the broken rule
- **30 second scold** (Dan Hughes)
- Explain consequences **beforehand**
- Have consequences that can be completed quickly so the teenager can try again
- Carry out consequences unless it was out of their control. Show you are flexible and reasonable (modelling)
- Protecting them from all consequences (e.g. from school) may not help them learn

Communication and listening

- **Finding times to chat is important...**
 - **Show interest** (e.g. “Wow”, “That sounds weird”)
 - **Open way for teenager to say more** (e.g. “How come?”, “You must have felt.....”)
 - **Find some good times to talk** (e.g. mealtimes, driving somewhere, bedtime, coffee shop)
 - **Share something about your life**
 - **Remain silent when they are talking!**
- **Help teenager to find their own solutions to a problem**
- Try not to give advice, joke, jump in with reassurance or give a “sermon” - these stop communication



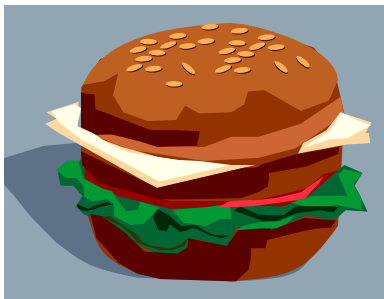
Communication and listening

- Use **active listening** for *strong* feelings
 - Give time and space for the other
 - Look interested with your body language
 - Reflect back what you think they are feeling and have said
 - Show you have heard and receive
 - **This needs practice!**
- When feelings are high, listening is important. You could postpone the talk to a calmer time.
“Be a truth listener not a lie invitee” (Bader, 2001).

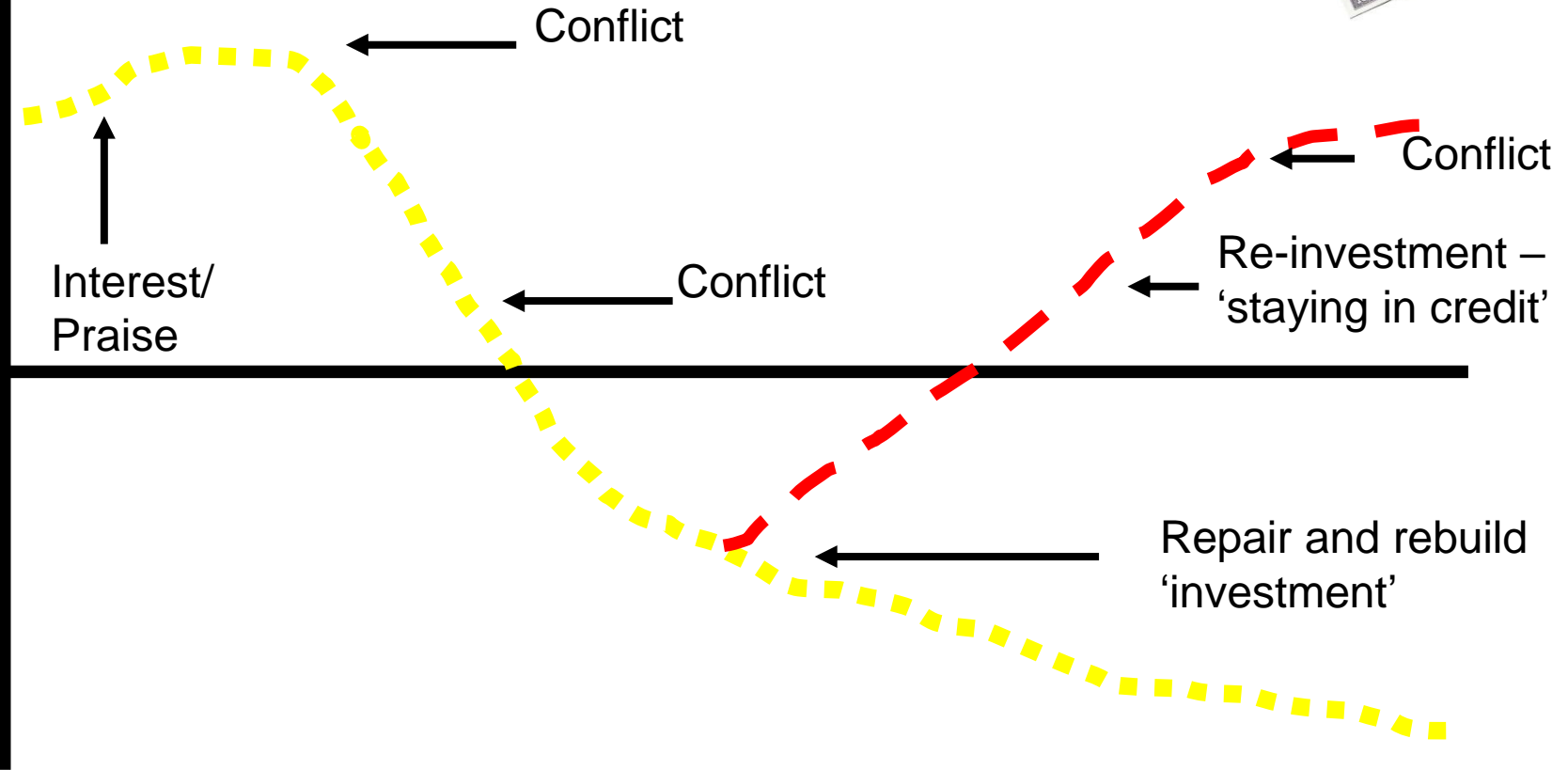


Praise

- Everyone needs and responds well to praise and rewards
- It is essential in activating anti-aggression chemicals in the brain and deactivating stress hormones
- Be specific – describe what you see and feel
- Show enthusiasm
- Avoid combining praise with put-downs: don't remind them of prior failures or less than perfect performance.
Six instances of praise or affection for every one criticism



'Investing' in your relationship



Peer Influence

- We are all in, and need peer groups
- Peer influence can be challenging for parents
- Make friends with your teenagers friends
- Invitations to your house
 - Can be advantages to this!
 - Try and have different zones that meet different peoples' needs (e.g. TV, privacy)
 - Different rules for different ages
 - Be clear about rules (e.g. videos, alcohol, sexual activity)

Peer Influence

- Uncomfortable about their choice of friendship?
 - Listen, find out why they are important to your teenager
 - Check out if your concerns are real
 - If so, talk about the *behaviour* not the friends
 - Discuss ways for them to say “no”
 - Talk about your concerns and possible consequences that worry you
 - Support them to see other teenagers

UNDERSTAND ADOLESCENCE

- Understanding leads to more patience and tolerance
 - Think about your own teenage years
 - Think
 - What part of the brain are they in?
 - What is their behaviour communicating? Are they:

Emotional ?	Wanting to know you are there?
Confused?	Wanting to be heard?
Exhausted?	Wanting to be alone?
Testing you?	?
 - Share this with them where you can:
 - (*Afterwards*) What part of the brain were you in?
 - You seem tired. I am going downstairs. I am here if you need me
 - I think you are cross about....That must be hard...
 - I think that you want me to be quiet and just listen....

Group activity

Consider Tracey again.

In groups consider the following:

- What could Tracey's parents do to help?

Point of reflection

- What might you do or think differently after this evening?
- Is there something new you are going to try?
- Is there something you are going to do more of?
- Is there something you are going to do less of?

When to seek help?

- May not be about the teenager seeing someone
 - GP has professional duty of confidentiality towards any competent person (including under 16s)
- Might be about adult seeking advice/support



Talk to someone if you...

- Notice a change in behaviour or emotional state which has persisted
 - Markedly more withdrawn or aggressive
 - No obvious cause
- Suspect they are at risk of harming themselves
 - Evidence of self-harm (eg. cuts, burns)
 - Suicide threat



Talk to someone if you... (cont.)

- Notice loss of interest in schoolwork, hobbies and friends, they seem tired and lacking in energy, and find it hard to concentrate
 - Eating and sleeping patterns disturbed
 - Signs of depression and/ or drug use
 - Persistent
- Eating habits that are obsessive or extreme may indicate an eating disorder
 - Severe weight loss or gain
 - Vomiting after meals



Talk to someone if you... (cont.)

- Feel they are involved with violent, “risk-taking activity” or in trouble with the law
- Find refusal to go to school has persisted for some time.



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