

# LESSONS FROM THE SCIENCE OF ADOLESCENT DEVELOPMENT

## OKAY, THEIR BRAINS ARE DIFFERENT, BUT WHAT SHOULD I DO?

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# AGENDA

**Part I: The Basics of Adolescent Development (Again)**

**Part II: Okay, Their Brains are Different. Why Should I Care?**

**Part III: Fine. What Do I Do?**

# ***WHAT WERE YOU THINKING???!!!***

❖ **The would-be bomber**

❖ **L'il Crazy**

# SOME THINGS ADOLESCENTS ARE NOT GOOD AT

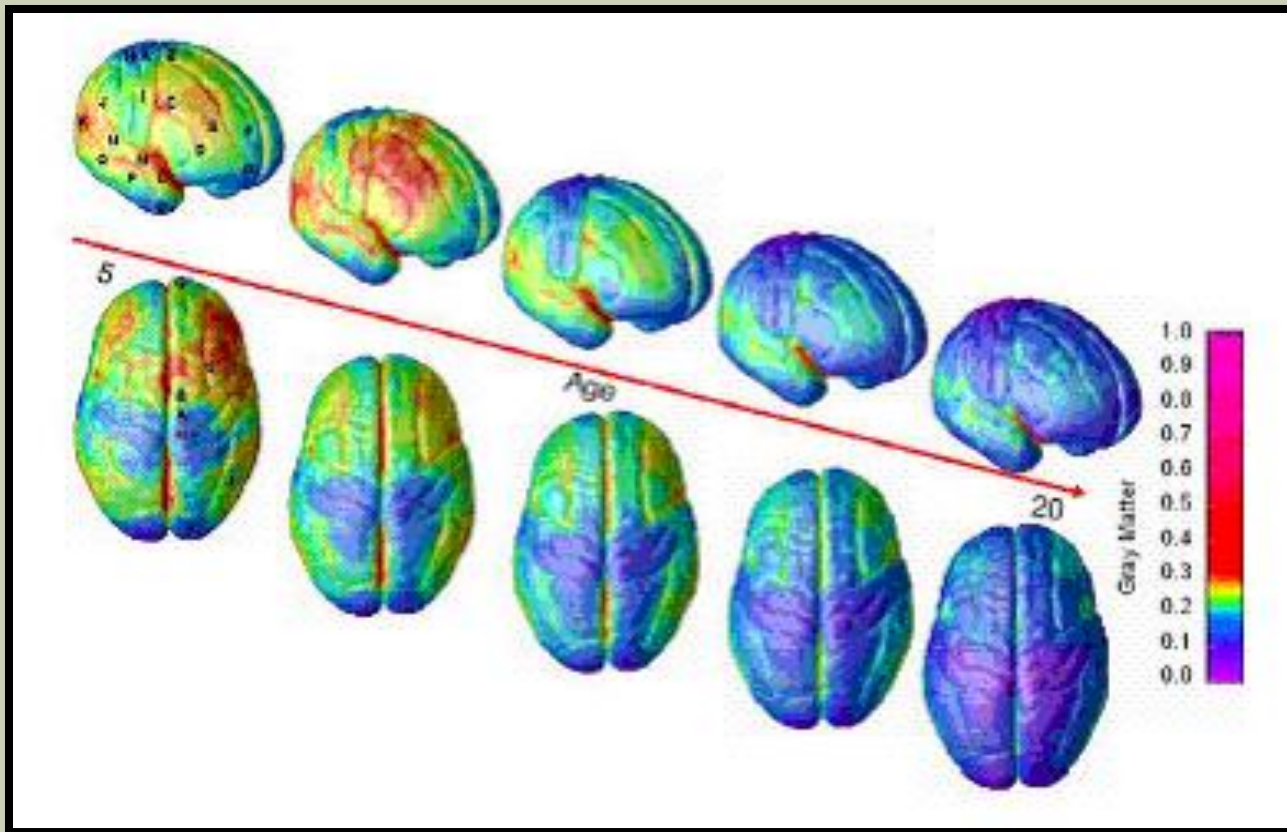
- Thinking realistically about long-term outcomes
- Inhibiting impulses
- Taking others' perspectives
- Reliably demonstrating good judgment
- Saying no when peers are around
- Saying no (...except to adults)

# PART I: THE BASICS OF ADOLESCENT DEVELOPMENT

- 1. Brain differences**
- 2. Thinking differences**
- 3. Social-emotional differences**

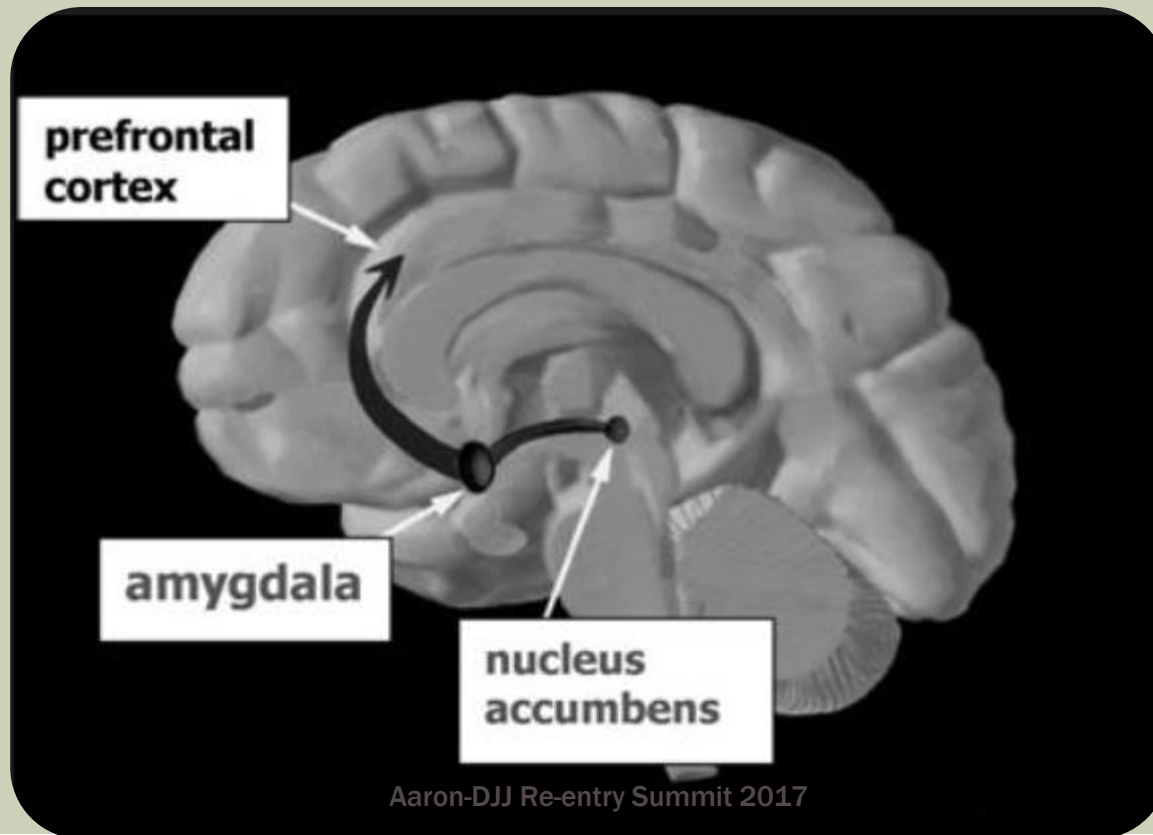
# THE ADOLESCENT BRAIN - LEVEL I

- Delayed development of the prefrontal cortex



# THE ADOLESCENT BRAIN - LEVEL II

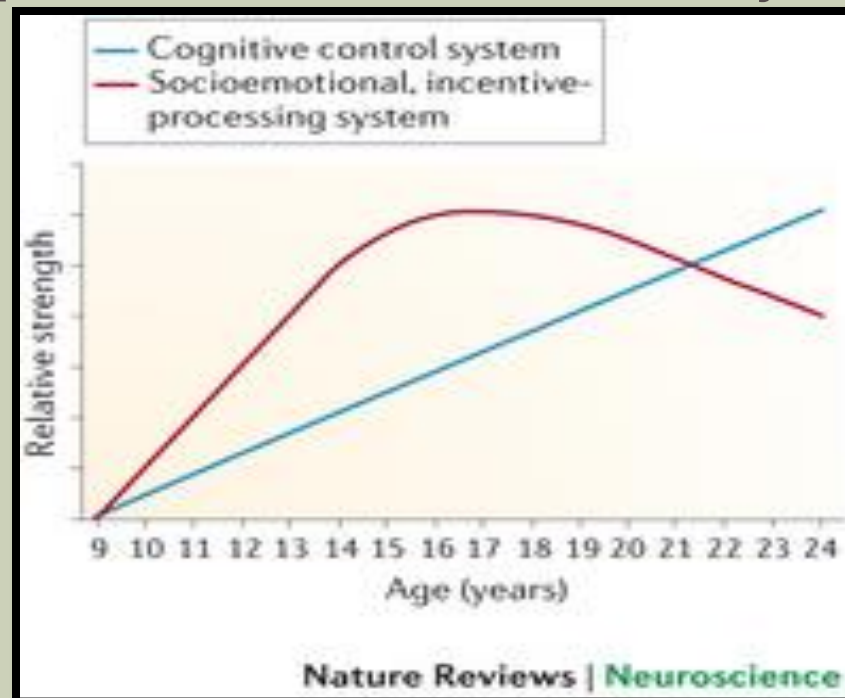
- Prefrontal cortex immaturity and prominent influence of emotion centers



# THE ADOLESCENT BRAIN – LEVEL III

## The Dual Process Model (“All gas pedal and no brake”)

- First, changes that include increased sensation seeking, attention to potential rewards of risky behaviors
- Later, improved cognitive controls





# THE ADOLESCENT BRAIN - LEVEL IV

## Four specific structural changes in the brain during adolescence

CHANGE	IMPACT	TIMING
1. Decrease in gray matter in prefrontal regions of the brain	Improved cognitive abilities and logical reasoning	Early to middle
2. Changes in activity involving dopamine	Increased sensation-seeking/risk-taking behavior	Early to middle

# THE ADOLESCENT BRAIN - LEVEL IV

## Four specific structural changes in the brain during adolescence

CHANGE	IMPACT	TIMING
1. Decrease in gray matter in prefrontal regions of the brain	Improved cognitive abilities and logical reasoning	Early to middle
2. Changes in activity involving dopamine	Increased sensation-seeking/risk-taking behavior	Early to middle
3. Increase in white matter in the prefrontal cortex	Improvement in higher-order functions (planning, judgment, decision-making)	Steady through late
4. Increase in the strength of connections between the prefrontal cortex and the limbic system	Improved emotion regulation	Steady through late

# THE ADOLESCENT BRAIN - LEVEL IV

## Functional (in addition to structural) changes

- Heightened sensitivity to rewards (esp. anticipated rewards, and esp when w/friends)
- Strengthening in systems involving self-regulation
- Increasing “cross-talk” between systems when emotionally aroused

# THINKING DIFFERENCES

## 1. Differences in absolute capacity

- By about 16, most adolescents are capable of adult-like thinking

**But**

**A.** That assumes normal development, and

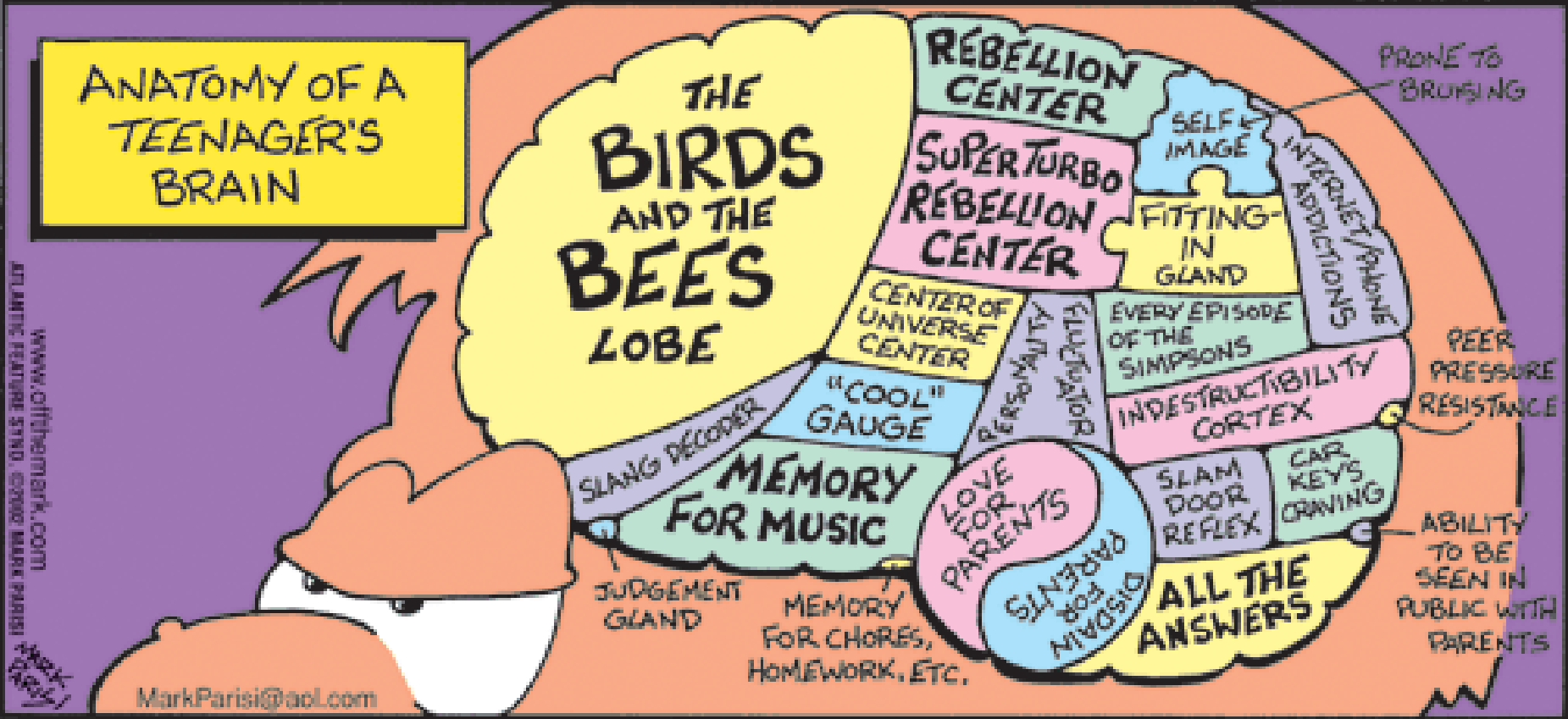
**A.** Capacity ≠ Actual Functioning

# ADOLESCENT THINKING

**off the mark**

by Mark Parisi

[www.offthemark.com](http://www.offthemark.com)

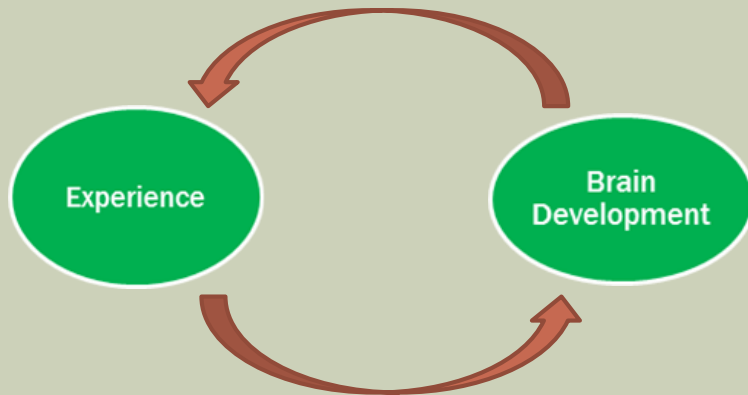


# BEYOND IQ: HOW ADOLESCENTS THINK

- Adolescents are intensely focused on the here and now
  - Present orientation and risk appraisal
- Adolescents are developing capacities to take perspective and reason hypothetically
- Adolescents are developing personal values

# BEYOND IQ: HOW ADOLESCENTS THINK

## ■ The importance of experience



## ■ Hot versus cold cognition

# SOCIAL/EMOTIONAL DIFFERENCES

- Identity development/autonomy
  - Identify development is *in progress*
  - Persistence vs. desistance of adolescent behaviors
- External influences are especially powerful
  - Peers, environmental context (and even adults)
- Impact of stress/anxiety on cognition
  - Stress degrades cognitive functioning
  - Including *past/persistent* traumatic stressors



# ALL TOGETHER, NOW...

- 1. Adolescent brains have weak brakes**
- 2. Adolescents take more risks in groups**
- 3. The behavior-governing prefrontal cortex is in still developing**
- 4. Adult guidance makes a difference**
- 5. Ninety percent of kids who break the law during adolescence don't become adult criminals**

-Steinberg, 2012

# PART II: OKAY, THEIR BRAINS ARE DIFFERENT, BUT WHY SHOULD I CARE?

## Understanding the Kids You've Got

- Kids in the JJ system are [more/less] impulsive than average kids.
- Kids in the JJ system are [more/less] reactive than average kids.
- Kids in the JJ system have [higher/lower] intelligence (i.e., problem-solving skills) than average kids.
- Kids in the JJ system are [more/less] traumatized than average kids.
- Kids in the JJ system have [more/fewer] life stressors than average kids.
- Kids in the JJ system are [more/less] likely to have mental health problems than average kids.

# (HOW) DO DEVELOPMENTAL DIFFERENCES IMPACT...?

- Real-world behavior?
- Relationships?
- Risk for re-offending?
- The change process?

# EFFECTS ON REAL WORLD BEHAVIOR

To support adaptive behavior, it helps to have

- Impulse control
- The ability to stop and think
  - ...when you're emotionally activated
- A focus on the future/goals
  - ...when there's something you want right now
- Temporal perspective

# EFFECTS ON RELATIONSHIPS

*To support stable relationships, it helps to have*

- Interpersonal perspective
- Judgment and planning
- Stable and not overly reactive behavior
- Impulse control

# EFFECTS ON RISK FOR OFFENDING

*To avoid (re-)offending, it helps to have*

- Foresight
- Impulse control
- Judgment and planning
- Thinking rather than emotion driving behavior
- The ability to resist immediate influences
- The ability to consider long-term outcomes...*when emotionally activated*

# EFFECTS ON THE CHANGE PROCESS

*Teens are especially amenable to change because...*

- **What makes them vulnerable to problem influences is not specific to problem influences**
  - Heightened responsiveness to external cues
  - Incomplete personality development
  - Desire to connect and be seen positively

# WHICH WINS?

- Relationship vs. self-interest
- Autonomy vs. self-interest
- Emotion vs. thought
- Now vs. later
- Looking cool/competent vs. everything else



# PART III: FINE. WHAT DO I DO?

## 1. In Broad Strokes

# DRAWING FROM RESEARCH & PRACTICE

- 1.** What works in Juvenile Justice intervention?
- 2.** What can we draw on from mental health practice?

# EFFECTIVE JUVENILE JUSTICE INTERVENTION

## Lessons from Pathways to Desistance Study

- 90% of serious offenders desist
- The benefits of incarceration are not treatment benefits; the value of containment is immediate safety
- SUDs are a potent criminogenic risk factor
  - *...and SUDs are frequently inadequately treated*
- Aftercare significantly reduces risk of re-offending

# EFFECTIVE JUVENILE JUSTICE INTERVENTION

## Lessons from Meta-analyses of what works

### ■ RNR

- Address known criminogenic needs (antisocial attitudes, peer associations, SU, self-control deficits)
- Use effective interventions (cognitive-behavioral, skill building)
- Match high-intensity interventions with high-end risk/needs

# EFFECTIVE JUVENILE JUSTICE INTERVENTION

## Lessons from Meta-analyses of what works

- “Atheoretical” analyses support above, and find
  - Not just intervention, but quality and duration of intervention critical
  - Other interventions (e.g., traditional counseling) can also be effective
  - And...

# EFFECTIVE JUVENILE JUSTICE INTERVENTION

**“...interventions that embody therapeutic philosophies such as counseling and skills training were more effective than those based on strategies of control and coercion, surveillance, deterrence, and discipline.”**

**Lipsey (2009) The Primary Factors that Characterize Effective Interventions with Juvenile Offenders: A Meta-Analytic Review**

# CONNECTING WITH WHO YOU'VE GOT

A model of intervention from CCCA:

*...Relationship-based*

*...Collaborative*

*...Trauma-informed*

# REMEMBER WHO YOU'RE DEALING WITH

- “Yes, but not these adolescents...”
- Keep your own emotions in check



# REMEMBER WHO YOU'RE DEALING WITH

What specific developmentally-based limitations and strengths exist in this particular kid, and how do they relate to his/her vulnerabilities and protective factors?



***An individualized plan***

# INTERVENTION PLAN MENU

Item	Vulnerability /Strength?	Strategy
<b>ACTIVATION</b>		
Impulsivity-reactivity		
Impulse control deficits ("won't-power")		
Responsivity to situational influences		
Sensation/reward- seeking		

# INTERVENTION PLAN MENU

Item	Vulnerability /Strength?	Strategy
<b>INTERPERSONAL</b>		
Peer influence		
Peer associations		
Primary relationships		
Empathy/interpersonal perspective		
Family influences (support, monitoring, attitudes)		

# INTERVENTION PLAN MENU

Item	Vulnerability /Strength?	Strategy
<b>COGNITIVE</b>		
Present/future orientation		
Temporal perspective		
Capacity for hypothetical reasoning		
Empathy/interpersonal perspective		
Antisocial attitudes		

# INTERVENTION PLAN MENU

Item	Vulnerability /Strength?	Strategy
<b>OTHER</b>		
Substance use		
Values		

**FINE. WHAT DO I DO?**

## **2. More Specifically (Part A)**

# DEVELOPING A RELATIONSHIP

## *Recognize and acknowledge your reaction to each kid*

- You will not feel the same about everyone
- They will get a sense of how you feel about them, and that will matter
- Become interested in each kid.
- ***Find something you like or admire about each kid. Tell them.***
- ***(You will misunderstand and misjudge them. Accept that. Don't let it get in the way.)***

# USE ACTIVE LISTENING

## Communicating in and out of a crisis

### ■ Active listening

- Listen
- Repeat
- Clarify

➤ Understand

➤ Reflect





# THE POSITIVE REFRAME (AKA “GOOD INTENTIONS GONE AWRY”)

Identify the underlying adaptive behavior

- “I know you want to feel heard. That makes perfect sense.”
- “It is really important to you that people respect you.”
- “You just want to feel better.”

# COLLABORATING TO SOLVE PROBLEMS

- If you reframe a behavior problem as a skill deficit, it becomes easier to work together to find a solution
  - Step 1: Identify and validate the healthy goal
  - Step 2: Work together to help the teen reach it

## Examples

- Impulsive aggression
- Substance use
- Curfew violation

# MAKING CONNECTIONS TO THEIR LIVES, GOALS, AND **VALUES**

## Constitution of the World Health Organization:

**Principle 1: *Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.***

- Our ideas about what someone needs may not be their (or their parents') idea about what they need
- Interventions are more likely to be successful when teens' buy in.

# AN EXAMPLE

## A Standard Personal Safety Plan

Section	Heading	Question
1	<b><u>MY TRIGGERS</u></b>	What makes you angry or distressed?
2	<b><u>MY WARNING SIGNS</u></b>	What happens when you are angry or distressed?
3	<b><u>MY COPING TOOLS</u></b>	What helps you feel safe, secure, and calm?

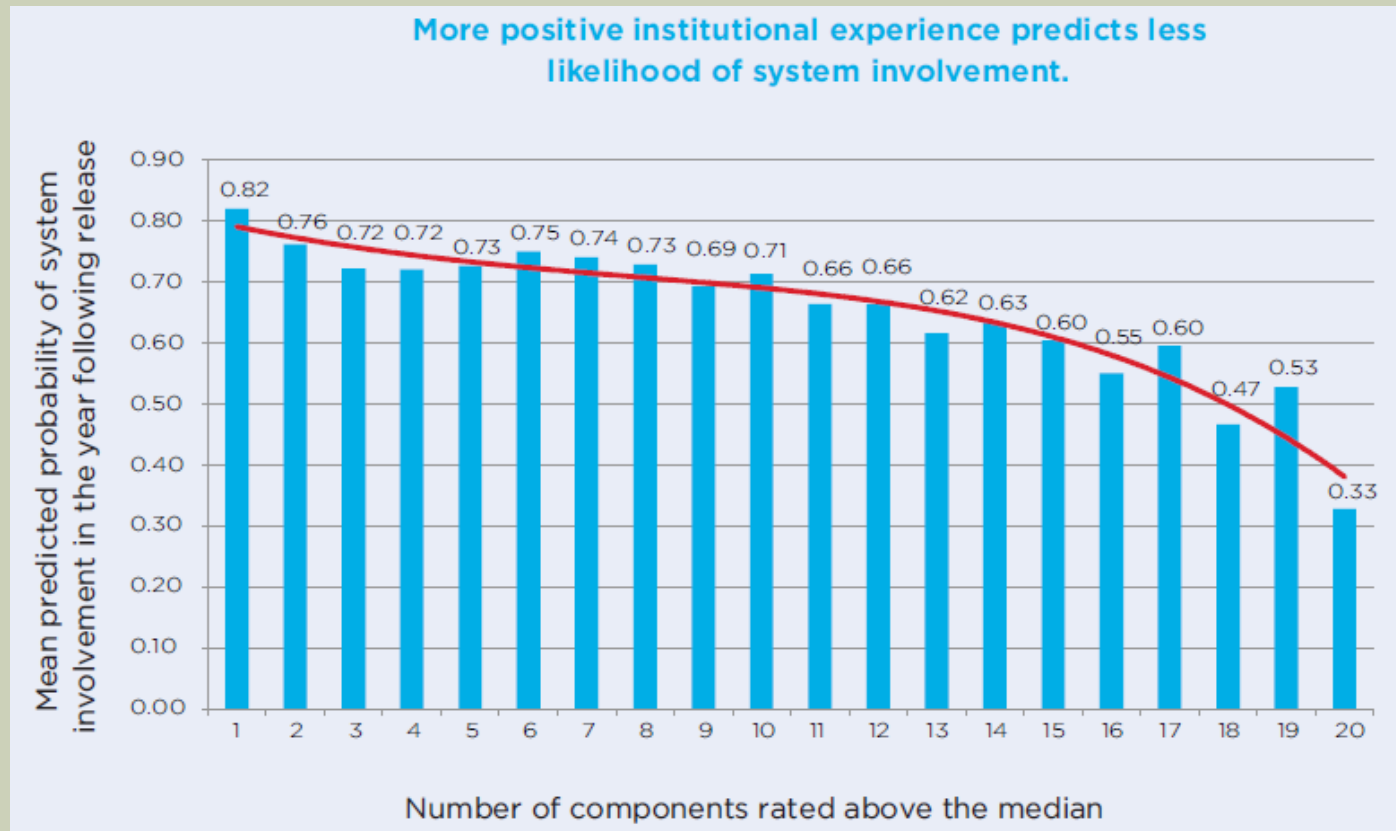
# AN EXAMPLE

## CCCA's Personal Safety Plan

Section	Heading	Question
1	<b><u>MY VALUES</u></b>	<b><i>What is important to you?</i></b>
2	<b><u>MY TRIGGERS</u></b>	What makes you angry or distressed?
3	<b><u>MY WARNING SIGNS</u></b>	What happens when you are angry or distressed?
4	<b><u>MY COPING TOOLS</u></b>	What helps you feel safe, secure, and calm?

# BE (AND BE PERCEIVED AS) CARING AND FAIR

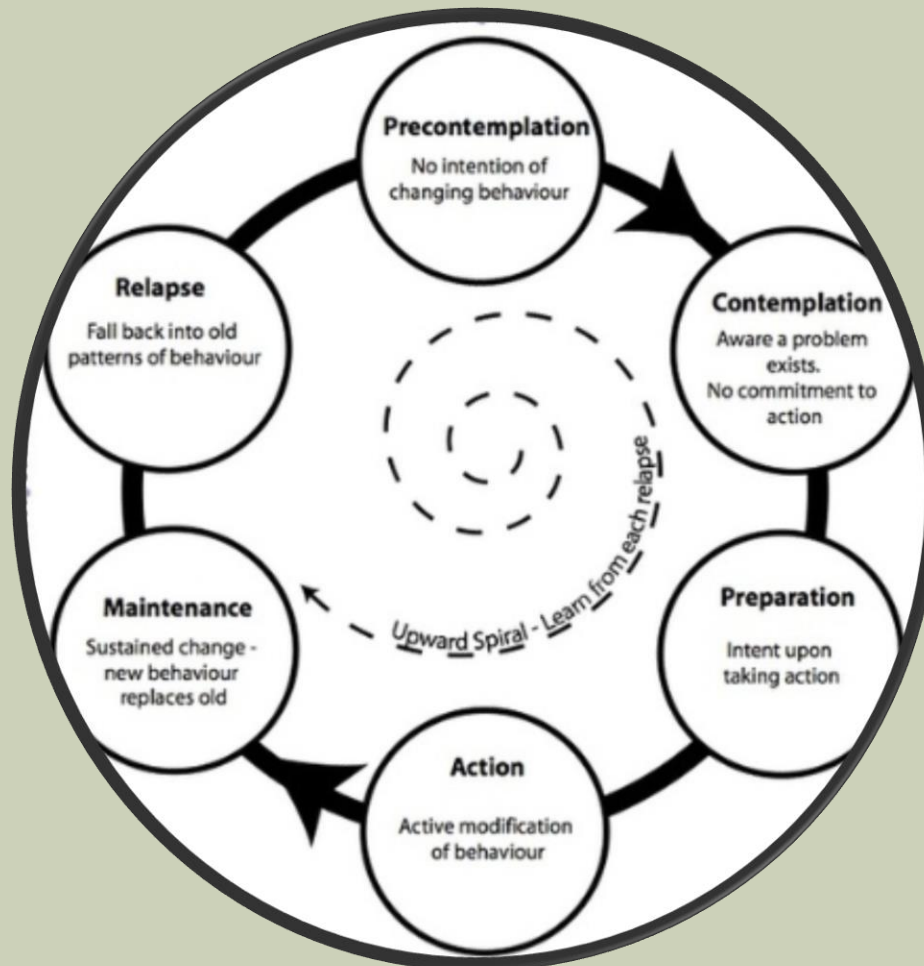
- A finding from the Pathways study:



# DRAW FROM MH INTERVENTIONS

- Engagement and collaboration
  - Motivational Interviewing
  - Cognitive restructuring (tomorrow)
  - Relapse prevention (tomorrow)
- Trauma informed practices (tomorrow)

# MOTIVATIONAL INTERVIEWING

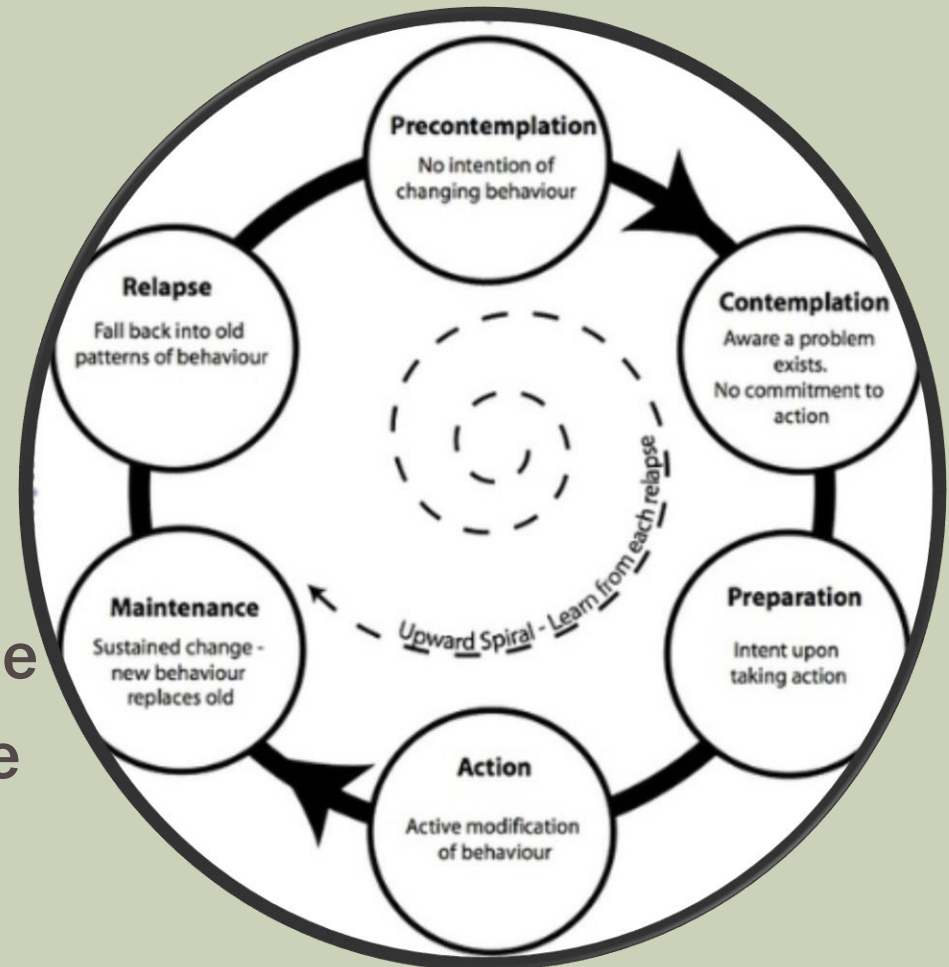




# MOTIVATIONAL INTERVIEWING

## ■ Overview:

- People won't change until they are ready.
- Meet them where they are for maximum impact.
- Collaborate to increase motivation for change



# MOTIVATIONAL INTERVIEWING

- **Collaborative Techniques**
  - Open-ended questioning
  - Reflective listening
  - Supporting autonomy
  - Exploring pros and cons of changing/not changing
  - Explore and support readiness to change
  - Assistance planning for change
  - Supporting the change process and maintenance of change
  - Accepting relapse as a potential part of the process

# SOME THINGS THAT TEND NOT TO WORK

- Teaching *in absence of real-world connection*
  - Interventions that **provide information** and teach adaptive behaviors, especially when they are **not connected to real-world practice**, may have little value
- Telling ***what not to do*** without developing alternatives
- Promoting problematic peer contacts (e.g., some group interventions)
- Reward bias: Ignoring that adolescents pay more attention to rewards in decision-making than to risks, and that peer presence heightens this tendency

# CLOSING THOUGHTS

- Build and use the relationship
  - Really listen. What are they trying to say?
  - Make it “we” rather than “you”
  - Be fair
  - Be authoritative, not authoritarian
  - See the positive in them and their actions; tell them about it
  - Find something to praise
  - Model and respect kindness

# CLOSING THOUGHTS

- Give “Voice and Choice”
  - Seek and be open to their perspective
  - Find and support *their* adaptive goals
  - They are focused on autonomy; give them choices whenever you can

# CLOSING THOUGHTS

## ■ Collaborative Engagement

- Don't tell them what they *need* to do; engage them in finding the solution
- Help them put things in perspective
- Remember that self-image will beat self-interest
  - ➔ Can you help them figure out how to achieve both?