### ACT-Enhanced Behavioral Therapy as a Treatment for Anhedonia in Adolescents

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# Disclosures and Acknowledgments

No financial disclosures



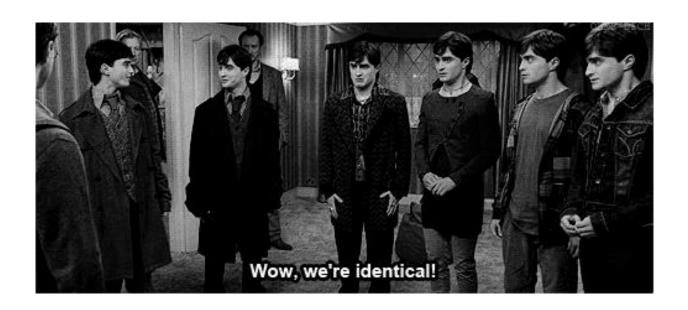
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# The problem with "Depression"

No two kids look the same...





## A Solution? Anhedonia

### **NEGATIVE VALENCE**

Acute Threat "Fear"

Potential Threat "Anxiety"

**Sustained Threat** 

Loss

Frustrative Non-Reward

### POSITIVE VALENCE

### Approach Motivation

- Reward Valuation
- Effort Valuation - Expectancy
- Expectancy
- Action Selection

### Initial Responsiveness to Reward

Sustained Responsiveness to Reward

**Reward Learning** 

Habit

### COGNITIVE

### Attention

### Perception

- Visual
- Auditory
- Olfactory

### **Declarative Memory**

### Language Behaviour

### **Cognitive Control**

- Goal Selection, Updating,
   Representation & Maintenance
- Response Selection
- Inhibition
- Performance Monitoring

### **Working Memory**

- Active Maintenance
- Flexible Updating
- Limited Capacity
- Interference Control

### SOCIAL

### Affiliation & Attachment

### **Social Communication**

- Reception of Facial Communication
- Production of Facial Communication
- Reception of Non-Facial Communication
- Production of Non-Facial Communication

### Perception & Self

- Agency
- Self-Knowledge

### Perception & Others

- Animacy Perception
- Action Perception
- Understanding of Mental States

### AROUSAL & REGULATION

### Arousal

Circadian Rhythms

Sleep & Wakefulness



### **Anhedonia in Teens**



Highly endorsed

Predictive of poorer outcomes (e.g. McMakin, et al, 2015; Gabbay, et al, 2015)



# This also fits with Behavioral Models of Depression

Sally fights with her mom

Sally feels guilty

Sally isolates in here

Sally thinks things will never get better

Sally feels more depressed

Loss of contact with positive reinforcers.

Increased contact with aversive events.

Avoidance of negative experience is reinforced.



# How do you treat it?





### Method

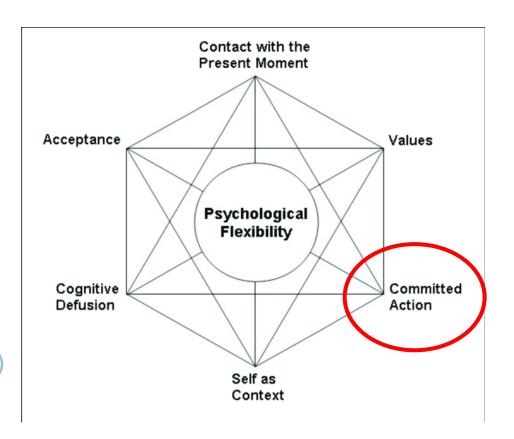
**Our Studies** 

3 Open trials of ACT
A/B Design
Assessment

MIA (3-5 sessions)

Assessment

ACT (6-10 sessions)





### **Students in Midwest public schools**

N= 38 Age 14-18, *M*= 15.86 60% Female

Anhedonia measured using the CDRS-R given before and after ACT

Difficulty Having Fun Social Withdrawal Impaired Schoolwork



## Results

### **Item Mean Difference from Pre- to Post- ACT**

ltem	Mean Difference	SD	t	g
Impaired Schoolwork	.78	1.95	1.92	.50
Difficulty Having Fun	1.44	1.90	3.62*	.97
Social Withdrawal	1.40	1.67	3.01	.53
Sleep Disturbance	1.13	1.63	3.32*	.95
Excessive Fatigue	2.00	2.15	4.46*	1.41
Physical Complaints	1.44	1.75	3.92*	.93
Morbid Ideation	.91	1.13	3.89*	.58



# Anhedonia was improved by ACT





# What do we do with this?

### **Two Big Take-Aways**

- Use activation to target anhedonic symptoms
  - i.e. Blom, et al. (2017)
- Use anhedonia as a target for brief interventions widely disseminated
  - Primary Care
  - Schools



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