Treatment of Comorbid Generalized Anxiety and Oppositionality in Children: Targeting the Underlying Processes

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Empirical support for comorbidity

- Epidemiological studies report substantial rates of comorbidity between anxiety and externalizing disorders (Russo & Beidel, 1994)
- 62% of those who reported ODD in childhood also reported comorbid anxiety (Nock, Kazdin, Hiripi, & Kessler, 2007)
- GAD sample, 21% experienced externalizing symptoms (Masi et al., 2004)

Comorbid children at a higher risk for negative life outcomes (Brunnekreef et al., 2007; Franco, Saavedra, & Silverman, 2007)
**Emotion Regulation**

- Monitor, evaluate, and modify emotional states to achieve goals, particularly intensity and duration (Eisenberg & Spinrad, 2004)

- **Effortful Control**
  - Ability to inhibit a dominant response, in order to perform a subdominant response (Rothbart & Bates, 1998)
  - High levels of emotionality, combined with low levels of effortful control → predictive of psychopathology (e.g., Muris, van der Pennen, Sigmond & Mayer, 2008; Rothbart, 2007)
  - Deficit for anxious and oppositional children (Eisenberg et al., 2001)
  - Link between emotions and executive functioning
Anxiety
- Difficulty managing emotions, high emotional intensity, poor understanding of emotions, low self-efficacy in regulation (Mennin, 2006; Suveg & Zeman, 2004)

Oppositionality
- Difficulties managing anger, high emotional intensity, and impulsive (Zeman, Cassano, Perry-Parrish, & Stegall, 2009)

Nonspecific emotion dysregulation factor (Silk, Steinberg & Morris, 2003; Steinberg & Avenevoli, 2000)
Information Processing

- Information processing deficits occur for both anxious and oppositional youth

  **Anxiety** (e.g., Muris & Field, 2008)
  - Interpretation, attention, memory, and maladaptive solutions

  **Oppositionality** (e.g., Dodge & Crick, 1990)
  - Interpretation and maladaptive solutions

- **Anxiety & Aggression** (Reid et al., 2006)
  - Attend to negative information, interpret ambiguous events as negative and a preferential recall of negative words
Parenting Behaviors

Negative Behaviors
- Uninvolved, perceived rejection or lower empathy expression are related to both anxiety and oppositionality (Hale, Engels, & Meeus, 2006; McCarty et al., 2000)
- Parents of both anxious and oppositional youth use fewer positive words (Denahm et al., 2000; Suveg et al., 2005)

Control
- Behavioral: monitoring and discipline
- Psychological: excessive involvement, discourages independence
<table>
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<th>Processes</th>
<th>Anxiety</th>
<th>ODD</th>
<th>Comorbidity</th>
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| Emotional Dysregulation       | - Over-control emotions  
- Low effortful control  
- High emotionality  
- Particular difficulties with anxiety                                                                                                           | - Under-control emotions  
- Low effortful control  
- High emotionality  
- Particular difficulties with anger and impulsivity                                                                                     | - Difficulties regulating high emotional arousal  
- Low effortful control  
- Difficulties with both anger and anxiety                                                                                                       |
| Information Processing Deficits | - Interpret ambiguous situations as threatening  
- Results in avoidant responding  
- Attend to negative information  
- Less likely to select positive or prosocial solutions when problem solving                                                                     | - Interpret ambiguous situations as threatening  
- Results in aggressive responding  
- Attend to negative information  
- Less likely to select positive or prosocial solutions when problem solving                                                                    | - Interpret ambiguous situations as threatening  
- Fluctuate between aggressive or avoidant responding  
- Attend to negative information  
- Less likely to select positive or prosocial solutions when problem solving                                                                     |
| Parental Psychological Control | - Over-controlling parenting style  
- Goal to reduce anxious behaviors                                                                                                               | - Over-controlling parenting style  
- Goal to reduce aggressive behaviors                                                                                                           | - Over-controlling parenting style  
- Goal to reduce negative behaviors                                                                                                               |
| Parental Emotional Expressivity | - Less emotional warmth  
- Child more likely to perceive parental neglect or rejection  
- Parent less like to use positive encouragement                                                                                               | - Less emotionally supportive  
- Child more likely to perceive parental rejection                                                                                              | - Less positive emotional expression  
- Less positive emotional support                                                                                                                  |
Emotion Focused CBT

- Traditional CBT infused with emotion focused concepts (e.g. Suveg, Sood, Comer & Kendall, 2009)
  - Identification (self and others)
  - Coping
  - Thinking through consequences
Collaborative Problem Solving (CPS)

- Lagging skills & unsolved problems

Process
- Parent presents unsolved problem to child and gathers information while providing empathy
- Parent expresses their concerns
- Child is invited to generate solutions which address all concerns
Combined Treatment

- Combine ECBT with CPS for families with children who have both GAD and ODD

- ECBT for children would target emotion regulation and information processing

- CPS would target parenting behaviors
  - parental empathy
  - psychological control

- As well as child processes (e.g., perspective taking, multi-step problem solving, flexibility)
Sessions 1–5

**Child**
- Identifying feelings (happy, sad, worried, angry)
  - Facial, voice, body language cues
  - Trigger situations
  - Different levels of emotions
- Coping skills (deep breathing, self-talk, positive activities)
- Worry and anger hierarchies

**Parent**
- Understanding child in terms of lagging skills and unsolved problems
- Generate lists of unsolved problems that lead to anxious or oppositional behaviors
- Begin practicing CPS in session: Empathy, gathering information, appropriately expressing concerns, generating viable solutions
Sessions 6–12

- **Child**
  - Thinking traps
  - Focus on worry and anger hierarchies
  - Imaginal exposure (Imagine in situation, process feelings, thoughts, behaviors and how to handle the situations)
  - Experiencing multiple emotions

- **Parent**
  - Supporting child while working through hierarchies at home
  - Practicing CPS at home
  - Implementing solutions
  - Moving from smaller to larger unsolved problems
Specific Aims

- Aim 1: Examine the efficacy, feasibility, and acceptability of a 75 minute, 12 week intervention, in a single case multiple-baseline design
- Aim 2: To track improvement in anxiety and oppositionality
- Aim 3: To track improvement in the proposed underlying processes
- Aim 4: To examine the maintenance of improvement after one month
Hypotheses

- $H_1$: The measures recorded at baseline will remain relatively consistent during baseline phase

- $H_2$: ODD symptoms will decrease as a function of treatment

- $H_3$: Anxiety symptoms will decrease as a function of treatment

- $H_4$: Underlying processes will change as a function of treatment
  - Emotion regulation will increase
  - Information processing biases will decrease
  - Parents will display more empathy and allow child autonomy

- $H_5$: Both parents and children will find the treatment feasible and acceptable
Participants

- 9 children and their families
- Inclusion criteria: 10–14 years of age, current DSM-IV diagnosis of GAD and ODD
- Eligibility will be determined after a thorough assessment
- Follow up assessments will be conducted at 1 week and 1 month, following treatment completion
Measures

- **Global**
  - Anxiety Disorders Interview Schedule (ADIS; Silverman & Albano, 1996)
  - Strengths and Difficulties Questionnaire (SDQ; Goodman, 1997)

- **Anxiety**
  - Spence Child Anxiety Scale (SCAS; Spence, 1998)

- **Oppositionality**
  - Disruptive Behavior Disorders Rating Scale (DBDRS; Barkley, 1997)

- **Treatment Satisfaction**
  - Consumer Satisfaction Questionnaire (CSQ; McMahon & Forehand, 2003)
Measures for Processes

- **Parenting Variables**
  - Alabama Parenting Questionnaire (APQ; Shelton, Frick & Wootton, 1996)
  - Parental Bonding Instrument (PBI; Parker, Tupling & Brown, 1979)

- **Emotion Regulation**
  - Emotion Regulation Checklist (ERC; Shields & Cicchetti, 1997)
  - Emotion Expression Scale for Children (EESC; Penza-Clyve & Zeman, 2002)

- **Information Processing**
  - Child Automatic Thoughts Scale (CATS; Schniering & Rapee, 2002)
Research Design

- Non-concurrent baseline single-case design
- Recommended for treatment efficacy
- Each subject serves as own control
- Staggered baselines (2, 3, and 4 weeks) allows for experimental control (Horner et al., 2005; Morgan & Morgan, 2009)

Analytic Plan

- Systematic visual comparison using time-series graphs (Horner et al., 2005; Kazdin, 2011)
- Non-parametric Friedman tests
  - Look at mean of symptoms at baseline, post, and one month
- Simulation Modeling Analysis (Borckardt, 2008)
  - Examines changes in symptoms levels and slope of symptom change
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