A Preliminary Evaluation of a Modified School-Based Facing Your Fears for Students with Autism Spectrum Disorder and Anxiety
Karen Kester, Ph.D., BCBA
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Learning Objectives

- increase understanding of anxiety in context of ASD
- identify core components of CBT
- discuss treatment of anxiety for students with ASD in the school context

Prevalence

- most common mental health illness in Canada
- anxiety symptoms are very common in individuals with ASD
  - 40% of children with ASD experience clinical levels of anxiety (van Steensel et al., 2011)
  - prevalence increases when consider significant impairing symptoms

The Color Monster - Anna Llenas
Impact

- Social skill acquisition
- Challenging and disruptive behaviour
- Parent/family stress
- Co-occurring medical conditions
- Joining social, athletic or recreational clubs
- Attending classes and school
- Learning
- Academic performance
- Making friends
- Participating in class
- Completing assignments

(Hudson et al., 2001; Kerns & Kendall, 2014; Reaven, 2011; Van Steensel et al., 2013; Williams et al., 2014)

Cycle of Anxiety

1. Child experiences an anxiety-provoking situation
2. Child avoids the anxiety-provoking situation
3. Child does not practice coping skills

CBT - Modifications

- Inclusion of primary caregivers
- Concrete examples
- Visual supports
- Match information to a child's cognitive abilities
- Specific interests
- Reinforcement
- Predictability

Moree & Davis (2010)
Cognitive behavior therapy to treat anxiety among children with autism spectrum disorders: A systematic review

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CBT in Schools (ASD)

- Facing Your Fears (Drmic, Aljunied, & Reaven, 2017).
- Exploring Feelings (Clarke, Hill, & Charman, 2016).
- Exploring Feelings (Luxford, Hadwin, & Kovshoff, 2017)
- MASSI: Multimodal Anxiety and Social Skills Intervention (Ireri, White, & Mbwayo, 2019).

Research-to-Practice Gap

- adoption and utilization of EST in real world settings
- efficacy vs effectiveness studies
- translating research into clinical practice
  - conducted in school setting
  - educators as intervention agent
Integration Knowledge Translation (iKT)

- model of collaborative research
- researchers and knowledge users are partners in process
- Leads to relevant research

Study One

Purpose
- Understand knowledge users’ perspectives
- Construct IV for study two

Participants
- Educators (n = 3)
- Parents (n = 2)
Research Design
Focus groups
• primary session
• follow-up session

Analysis
Thematic analysis
• deductive process
• inductive process

Results

Primary themes
• strengths of FYF
• barriers to transportability
• team approach
• intervention agent
• effective communication
• procedural structure of FYF
• cohort sequencing
• selection process

Table 1
Themes, Subthemes, and Frequency of Responses

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<thead>
<tr>
<th>Theme</th>
<th>Subtheme</th>
<th>Frequency of responses</th>
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<tr>
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<td>Educator Group</td>
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<td>Strengths</td>
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<td>Barriers to transportability</td>
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<td>Team approach</td>
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<td>Class involvement</td>
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School Based Facing Your Fears: Outline

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<tr>
<th>Session</th>
<th>Small Group</th>
<th>Class</th>
<th>Parent</th>
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<tbody>
<tr>
<td>1</td>
<td>Welcome to Group</td>
<td>Understanding Worry</td>
<td>Introduction</td>
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<td>Calm Body - Calm Mind</td>
<td>Understanding Facing Your Fears</td>
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<td>Steps to Success</td>
<td>Introduction to Exposure</td>
<td>Steps to Success</td>
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<td>6</td>
<td>Practicing Exposure and Making Movies</td>
<td>Calm Body - Calm Mind</td>
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<td>Graduation</td>
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School Based Facing Your Fears
Small Group

Session 1: Understanding Fears
- What makes me worry
- What worry does to my body
- False alarm/real danger

Session 2: Calming Body, Calming Mind
- Externalizing worry: worry bugs
- Calm body strategies
- Calm mind strategies

Session 3: The Mind-Body Connection
- Stress-o-meters and measuring anxiety
- Worried minds and helpful thoughts
- Identify priority worries

Session 4: Calming Body, Calming Mind
- Plan to get to green

Session 5: Steps to Success
- Creating exposure hierarchies

Session 6-10: Exposures
- Practicing facing fears
- Making Movies

School Based Facing Your Fears
Class

Session 1: Introduction
- Program overview
- Parent role

Session 2: Understanding Facing Your Fears
- Adaptive vs. Excessive protection
- Worried minds
- Plan to get to green

Session 3: Steps to Success
- Fear hierarchies

Session 4-5: Exposure Coaching
- Review student progress
- How to identify & target new worries

School Based Facing Your Fears
Parent

Session 1: Introduction
- Program overview
- Parent role
- Questions/Answers

Session 2: Understanding Facing Your Fears
- Adaptive vs. Excessive protection
- Worried minds
- Plan to get to green

Session 3: Steps to Success
- Fear hierarchies

Session 4-5: Exposure Coaching
- Review student progress
- How to identify & target new worries

Study Two
Research Questions

Educator Skill Acquisition
Student Anxiety
Social Validity

RQ1: Examining educator skill acquisition and treatment fidelity

- Will there be a statistically significant improvement in educators’ CBT knowledge post-workshop when compared to baseline assessment?
- Will improvements in educators’ CBT knowledge be maintained at follow-up?
- Will the training workshop and training feedback sessions be associated with a post-intervention average fidelity score of 80% or higher across educators implementing the modified school-based FYF program with students with ASD and anxiety?
- Will educators perceive the training workshop and training feedback sessions to be associated with their skill acquisition in implementing the FYF intervention?

RQ2: Examining student treatment outcomes

- Will participation in a modified school-based FYF intervention yield a statistically significant reduction in anxiety symptoms for elementary student with ASD post-intervention?
- Will students’ reduction in anxiety symptoms be maintained at six-to-eight-week follow-up?
- Will a reduction in anxiety symptoms for elementary students with ASD reflect a clinically meaningful change?

RQ3: Assessing Social Validity

- Do educators, parents/caregivers of children with ASD, and children with ASD who participate in the modified FYF intervention view the school-based intervention as socially valid?
Participants

Educator (n = 6)
- counsellor, IST, EA, teacher

Student (n = 5) and Parent (n = 7)
- ASD + anxiety symptoms
- ages 11-13 years
- 4 males, 1 female

Research Design

Mixed methods approach
- Quasi-experimental group design
  - Educators: 3 assessment points
  - Students: 3 assessment points
- Brief semi-structured interviews
  - Educators: feedback sessions
  - Students: weeks 4-10
- Focus groups

Independent Variables

RQ1: Examining educator skill acquisition and treatment fidelity
- training workshop
- training feedback sessions

RQ2: Examining student treatment outcomes
- school-based Facing Your Fears intervention

Dependent Variables

RQ1: Examining educator skill acquisition and treatment fidelity
- skill acquisition
- treatment fidelity

RQ2: Examining student treatment outcomes
- student anxiety

RQ3: Assessing social validity
- acceptability and feasibility of SB-FYF
Results

RQ1: Examining educator skill acquisition and treatment fidelity

### Knowledge
- Pre-training to post-intervention, $\chi^2 = 9.65, p = .008$

### Intervention fidelity
- **Student sessions**
  - 79% (82%, 77%)
- **Parent sessions**
  - 66% (80%, 51%)
- **Class sessions**
  - 94% (94%, 94%)
- **FYF**
  - 73%

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### Intervention Fidelity Scores for Student Sessions by Facilitator

### Intervention Fidelity Scores for Parent Sessions by Facilitator
RQ1: Examining educator skill acquisition and treatment fidelity

- Primary themes:
  - helpful facilitating factors
  - learning process
  - challenges
  - student behaviour
  - personal expectations

RQ2: Examining student treatment outcomes

- Child report (ASC-ASD)
  \[ \chi^2 = 9.26, p = .196 \]
  Effect size = 0.83 (large)

- Parent report (ASC-ASD)
  \[ \chi^2 = 2.80, p = .246 \]
  Effect size = 0.30 (small)

- Teacher report (SAS-TR)
  \[ \chi^2 = 1.20, p = .549 \]
  Effect size = 0.57 (medium)

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<tr>
<th>Child</th>
<th>ASC-ASD (C)</th>
<th>RQI (C)</th>
<th>ASC-ASD (P)</th>
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Note: ASC-ASD (C) = child-reported anxiety measure, ASC-ASD (P) = parent-report anxiety measure, SAS = teacher-reported anxiety measure

*RCI > 1.96
### RQ2: Examining student treatment outcomes

**Individual Student Scores for the Three Anxiety Measures and Clinical Significance**

<table>
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<th>Child</th>
<th>Child</th>
<th>Parent</th>
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### RQ3: Assessing social validity

**Social validity**
- Educators: 4.2 (4.4, 4.0)
- Parents: 4.6 (4.2, 4.8)
- Students: 3.8 (3.3, 4.2)
- Grand Mean: 4.2 (4.1, 4.3)

**Primary themes**
- outcomes
- program structure
- inclusion
- recommendations

### Contributions

- School-based FYF
- Effectiveness
- Facilitating factors

research-to-practice gap
Contributions

• conceptualization of treatment gains
• real life change
• Inclusive outlook

Limitations

• sample
• screening

Future Directions

• mixed methods
• effectiveness studies
• train the trainer

Selected References


