

A Preliminary Evaluation of a Modified
School-Based Facing Your Fears
for Students with
Autism Spectrum Disorder and Anxiety

Karen Kester, Ph.D., BCBA
February 12, 2020

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

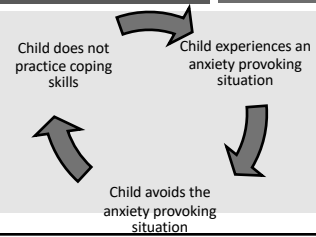


Impact

- 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

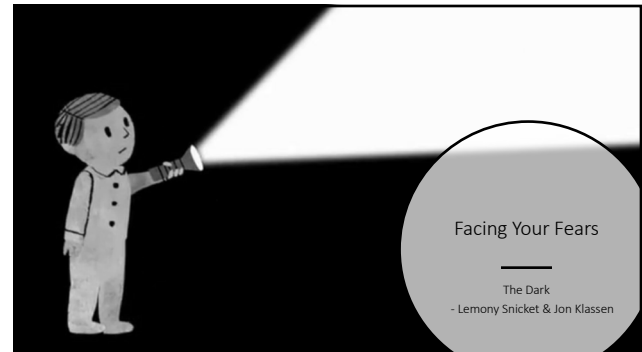


Reddit.com

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)



CBT in Schools (ASD)		
<ul style="list-style-type: none"> • 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 (Ileri, White, & Mwayo, 2019). 		

Research-to-Practice Gap		
<ul style="list-style-type: none"> • adoption and utilization of EST in real world settings • efficacy vs effectiveness studies • translating research into clinical practice <ul style="list-style-type: none"> • 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

LOS ANGELES TIMES

PEANUTS CLASSICS By Charles M. Schulz



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*

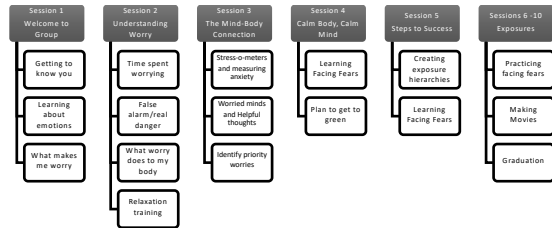
Table 1
Themes, Subthemes, and Frequency of Responses

Theme	Subtheme	Frequency of responses		
		Educator Group	Parent Group	Total
Strengths	Format	7	5	12
	Content	8	9	17
Barriers to transportability	School capacity	12	10	22
	Scheduling	3	4	7
	Commitment	6	0	6
Team approach	Parent involvement	6	7	13
	Class involvement	4	3	7
	Administrator support	4	2	6
Intervention agent		6	5	11
Communication		5	2	7
Procedural structure	Exposure practice	4	2	6
	Scheduling	3	1	4
Cohort sequencing		2	2	4
Selection process		3	0	3

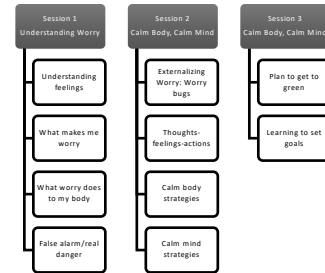
School Based Facing Your Fears: Outline

Session	Small Group	Class	Parent
1	Welcome to Group	Understanding Worry	Introduction
2	Understanding Worry		
3	The Mind-Body Connection	Calm Body-Calm Mind	Understanding Facing Your Fears
4	Calm Body – Calm Mind		
5	Steps to Success- Introduction to Exposure		Steps to Success
6	Practicing Exposure and Making Movies	Calm Body- Calm Mind	
7	Practicing Exposure and Making Movies		Exposure Coaching
8	Practicing Exposure and Making Movies		
9	Practicing Exposure and Making Movies		Exposure Coaching
10	Graduation		

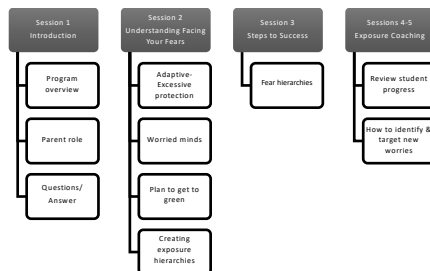
School Based Facing Your Fears Small Group



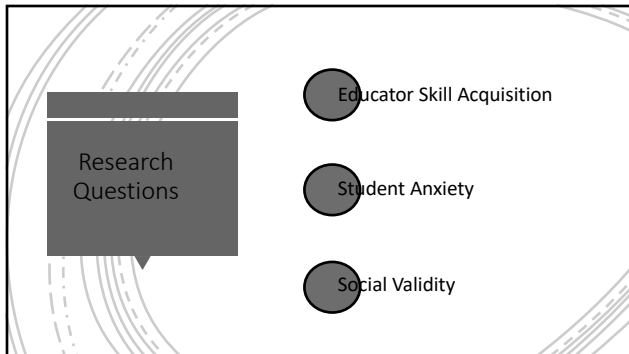
School Based Facing Your Fears Class



School Based Facing Your Fears Parent



Study Two



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

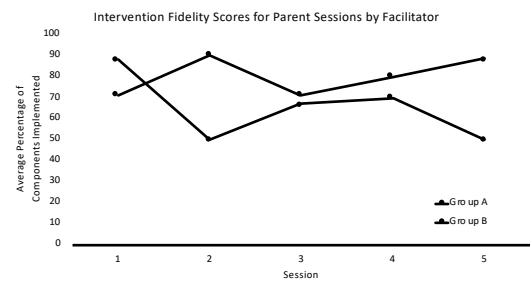
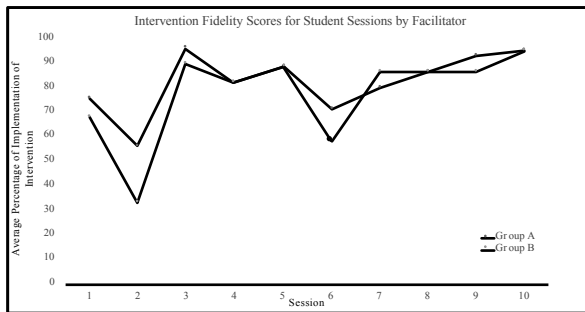
Results

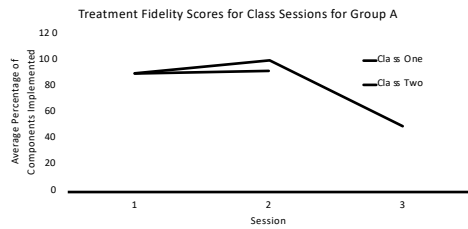
RQ1: Examining educator skill acquisition and treatment fidelity

CBT 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 (84%, 0%)
- FYF **73%**





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)

RQ2: Examining student treatment outcomes

Individual Student Scores for the Three Anxiety Measures and Clinical Significance

Child	ASC-ASD (C)		RCI (C)	ASC-ASD (P)		RCI (P)	SAS		RCI (T)
	I	III		I	III		I	III	
1	24	17	1.25	22	30	-1.57	33	29	1.29
2	9	4	0.89	14	12	0.36	12	23	-3.49*
3	35	16	3.39*	36	22	2.75*	8	6	0.63
4	8	3	0.89	37	29	1.57	31		--
5	18	10	1.43	16	13	0.59	32	27	1.59

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

Child	Child		Parent		Teacher	
1	↓		↑		↓	
2	↓		↓		↑	
3	↓		↓		↓	
4	↓		↓			
5	↓		↓		↓	

RQ2: Examining student treatment outcomes

Primary themes

- Changes in ratings
- Tools

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

- Drmic, I. E., Aljunied, M., & Reaven, J. (2017). Feasibility, acceptability and preliminary treatment outcomes in a school-based CBT intervention program for adolescents with ASD and anxiety in Singapore. *Journal of Autism and Developmental Disorders*, 47(12), 3909-3929. doi:10.1007/s10803-016-3007-y
- Kester, K. & Lucyshyn, J. (2019). Co-creating a school-based facing your fears anxiety treatment for children with autism spectrum disorder: A model for school psychology. *Psychology in the Schools*, 56(5), 824-839. doi:10.1002/pits.22234.
- Moree, B. N., & Davis, T. E. (2010). Cognitive-behavioral therapy for anxiety in children diagnosed with autism spectrum disorders: Modification trends. *Research in Autism Spectrum Disorders*, 4(3), 346-354. doi:10.1016/j.rasd.2009.10.01
- Reaven, J., Blakeley-Smith, A., & Hepburn, S. (2014). Bridging the research to practice gap in autism research: Implementing group CBT interventions for youth with ASD and anxiety in clinical practice. In T. I. Davis, S. W. White, T. H. Ollendick, T. I. Davis, S. W. White, T. H. Ollendick (Eds.), *Handbook of autism and anxiety* (pp. 185-200). Cham, Switzerland: Springer International Publishing. doi:10.1007/978-3-319-06796-4_13