

# Examining the effect of CBT across traditional and distinct anxiety symptoms in youth with ASD: Three Case Studies from a Facing Your Fears school-based trial

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## Overview

- Anxiety symptoms in autism spectrum disorder (ASD) are heterogeneous and distinct (Kerns et al., 2014).
  - Youth with ASD may present with traditional (e.g., separation anxiety) and/or distinct presentations of anxiety (e.g., fear related to change or special interests).
- Cognitive Behavioral Therapy (CBT) is effective for treating anxiety in youth with ASD in clinic settings (e.g., Weston, et al., 2016).
- Examining effectiveness in “real world” settings is critical.
- Delivering CBT within schools is of particular interest because schools are a primary service access point for youth with ASD (Mandell et al., 2005)

**Objective:** The present study examined the effects of a school-based intervention for youth with ASD using an anxiety measure validated for ASD. Distinct and traditional symptoms of anxiety for a subset of participating children were examined.

## Methods

### Design:

- Facing your Fears (FYF; Reaven et al., 2011) is a manualized, evidence-based CBT program for treating anxiety in ASD.
- Participants were drawn from a larger trial of Facing Your Fears (FYF; Reaven et al. 2011), modified for delivery in schools by interdisciplinary school providers (FYF-School Based; FYF-SB).

### Participants:

- Three participants (10-13 years; 2 males, 1 female; See Table 1) from each of 3 participating school districts in the Denver Metro area.
- Eligibility criteria included:
  - Elevated autism symptoms (T-scores > 60) per the Social Responsiveness Scale, Second Edition (Constantino & Gruber, 2012).
  - Elevated anxiety symptoms (total or domain score(s) above clinical cutoffs) per the Screen for Child Anxiety and Related Disorders (parent or child report; Birmaher et al., 1997).

### Measures:

- The Anxiety Disorders Interview Schedule – Autism Spectrum Addendum (ADIS/ASA; Kerns, et al., 2017), a reliable and valid measure for assessing traditional and distinct anxiety presentations in ASD, was administered at pre- and post-intervention by a reliably-trained licensed psychologist.
- Clinically meaningful improvement was indexed by symptoms that met clinical cutoff (e.g., Clinical Severity Rating > 4) at pre-intervention but fell below this cutoff at post-intervention.

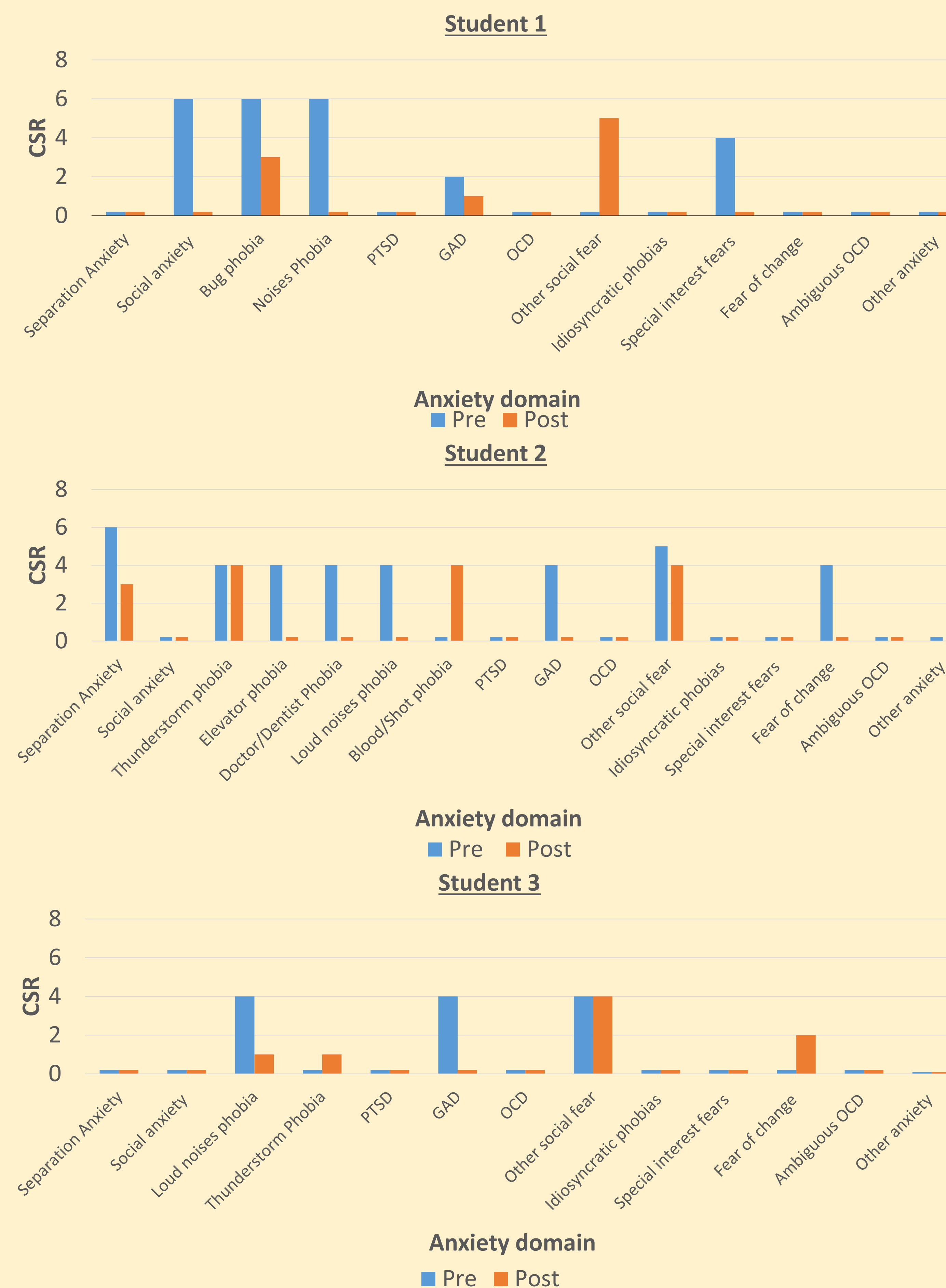
**Table 1. Basic Participant Demographics**

Subject	Age (years)	Sex
Subject 1	13	Male
Subject 2	10	Male
Subject 3	10	Female

## Results

- Student 1 showed meaningful improvements in: 2 *specific phobias* (bugs, noises), and worries about his *special interests fears*. Decreases in social evaluation concerns (i.e. *social anxiety*) occurred, but he remained fearful of social interaction (i.e. *other social fears*; see Figure 1).
- Student 2 showed meaningful improvement in *separation anxiety*, *fears of change* and 3 *specific phobias* (elevator, doctor, loud noises). However, a novel *specific phobia* emerged (loud sounds) and there were no changes in his remaining *specific phobia* (thunderstorms) nor *other social fear*.
- Student 3 showed meaningful decreases in *generalized anxiety*, 1 *specific phobia* (loud noises), but no change in *other social fear*.

**Figure 1. Pre-and Post ADIS/ASA anxiety scores by subject**



Note. CSR = Clinical Severity Rating. PTSD = posttraumatic stress disorder. OCD = obsessive compulsive disorder. Traditional, DSM-referenced domains of anxiety measured by the ADIS/ASA were separation anxiety, social anxiety, specific phobia, PTSD, GAD, and OCD. Distinct presentations measured by the ADIS/ASA included social fear, idiosyncratic phobia, fear of change, ambiguous OCD, and other specified anxiety.

## Discussion

### Conclusion:

- Overall, students showed decreases in anxiety symptoms across multiple domains following participation in FYF-SB.
  - Importantly, all students showed improvements in traditional categories, while two of the three participants showed meaningful decreases in distinct anxiety symptoms.
- However, FYF-SB appeared less effective in targeting social fears and social anxiety.
  - Even for Student 1, who made improvements in social anxiety, and particularly in his fears of being negatively evaluated by others, he retained other social fears – fears that are potentially related to social confusion or social communication deficits.

### Future Directions:

- The extent to which change in symptom expression corresponds to the symptoms targeted by FYF-SB will be examined in future studies.
- Future examinations will also examine whether targeting traditional anxiety symptoms led to generalization of improvements for distinct anxiety symptoms, and vice versa.

### Limitations:

- The present study was limited in its small sample size. Larger, randomized control trials are needed to replicate the present findings and determine whether FYF-SB is effective in treating discrete and traditional anxiety domains in ASD.
- Other potential factors influencing treatment, such as provider treatment fidelity or treatment rapport, were not examined.

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