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Running head: *Fearless Me! Feasibility Case Series*

***Fearless Me!*[®]: A Feasibility Case Series of Cognitive Behavioural Therapy for
Adolescents with Intellectual Disability**

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Abstract

Objective: This study evaluated the feasibility of the *Fearless Me!* program, an online Cognitive Behavioural Therapy (CBT) program for children with Intellectual Disability (ID) and anxiety.

Method: Twenty-one adolescents with mild to moderate ID participated in ten sessions of the therapist assisted *Fearless Me!* program, combining face-to-face group sessions and an online component. A case series design was adopted to assess anxiety symptoms at baseline, throughout intervention, and post intervention. Feasibility of the measures, intervention and trial design were considered.

Results: The measures were appropriate and sensitive to changes in anxiety, while the need for attention to factors influencing parent's completion of them were identified. Reliable Change Index and visual analyses of results indicated reductions in anxiety, particularly for older adolescents with heightened levels of anxiety at baseline.

Conclusions: This is one of the first CBT programs for adolescents with ID, and provides preliminary evidence of adapted CBT as a feasible treatment.

***Fearless Me!*[®]: A Feasibility Case Series of Cognitive Behavioural Therapy for
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People with intellectual disability (ID) have high rates of comorbid mental health disorders, and for children with ID the prevalence of mental illness is estimated to be as high as 50% (Einfeld, Ellis & Emerson, 2011; Tonge & Einfeld, 2000). Specifically, anxiety has been reported as the most prevalent mood disorder in young people with ID (Emerson, 2003). Historically, treatments for people with ID have largely consisted of medication and/or behavioural interventions (Vereenoghe & Langdon, 2013). However more recently, research has explored whether people with ID have the ability to engage in treatments with a cognitive component such as Cognitive Behavioural Therapy (CBT). It has been shown that adults with mild to moderate ID can correctly identify, distinguish between and link thoughts, feelings and behaviours (Dagnan, Chadwick, & Proudlove, 2000; Joyce, Globe, & Moody, 2006; Oathamshaw & Haddock, 2006; Sams, Collins, & Reynolds, 2006; Reed & Clements, 1989), which is the cornerstone of CBT. Furthermore, trials have found CBT to be effective in reducing mental health disorders for adults with ID, including depression, anxiety and anger issues (e.g. Hassiotis et al., 2013; Osugo & Cooper, 2016; Vereenoghe & Langdon, 2013).

While the literature has shown that CBT can be effectively used for adults with ID, there is a paucity of research exploring the potential use of adapted CBT for children and adolescents with mild to moderate ID and comorbid mental health disorders such as anxiety. This lack of evidence is concerning, given the associations in typically developing populations between unmanaged anxiety and negative outcomes. Anxiety is associated with reduced educational achievement and increased risky behaviours and mental health difficulties, while

reduced anxiety is associated with improved social functioning, family functioning and quality of life (Arch et al., 2012; Crawford & Manassis, 2001; Wood, 2006).

A review conducted by Hronis, Roberts and Kneebone (2017) explored the cognitive deficits common in children with ID in the areas of attention, learning, memory, executive functioning, language and reading, and suggested a range of potential adaptations of CBT specifically aimed to accommodate for difficulties in these domains. In light of these recommendations, the *Fearless Me!* program was developed; a therapist supported online CBT program specifically designed to reduce anxiety in children and adolescents with ID (Hronis, Roberts, Roberts, & Kneebone, 2018). The *Fearless Me!* program breaks down the elements of CBT, specifically cognitive challenging, and attempts to provide children and adolescents with opportunities to practice these skills in a fun and engaging way. A range of benefits have been noted relating to the use of technologies and online programs in therapy which are relevant for people with ID, including increased engagement, facilitation of homework practice and a means of teaching relevant skills and techniques (Bendelin et al., 2011; Gega, Smith, & Reynolds, 2013; Hronis et al., 2017; Vereenooghe, Gega, & Landgon, 2017).

As little research has focused on how CBT can be adapted for children and adolescents with ID, the aim of the present study was to conduct a preliminary investigation to evaluate the feasibility and acceptability of adapted CBT using the *Fearless Me!* program, and its effect on anxiety for adolescents with mild and moderate ID. A case series approach was adopted as this was deemed to be the most appropriate form of evaluation at this time, given that research in this area is still in its infancy. Based upon the clinical experience of the intervention developers and their review of potential intervention adaptations (Hronis et al., 2017) it was expected the intervention would be feasible and acceptable. Furthermore, given the research which shows

CBT to be effective for typically developing children with anxiety disorders (e.g. Crowe & McKay, 2017; Reynolds, Wilson, Austin, & Hooper, 2012) and for adults with ID (Vereenoghe & Langdon, 2013), it was predicted it would contribute to the reduction of anxiety for those adolescents with heightened levels prior to treatment.

Method

Participants

Twenty-one females aged 12-18 years participated in the program. All adolescents had ID in the mild to moderate range except one participant who was within the Borderline range. Participants were recruited from an all-girls school which supports children with special needs. Children at the school are of an average socio-educational advantage based on 2016 data from the Index of Community Socio-Educational Advantage (ICSEA; My School, 2017). Parents of all 21 adolescents provided consent for their child to participate in the program, however only 13 provided consent for specific demographic and diagnostic information to be obtained from school records. As a feasibility trial, no exclusion criteria were applied, and thus participants were not required to have heightened or clinical levels of anxiety in order to participate in the program. See Table 1 for additional demographic information for participants where available.

TABLE 1 HERE

Measures

A measure of Subjective Units of Distress (SUDS) was administered to the participants, the School Anxiety Scale – Teacher Report (SAS-TR; Lyneham, Street, Abbott & Rapee, 2008) to teachers, and the Spence Children’s Anxiety Scale: Parent Version (SCAS; Spence, 1998),

Strengths and Difficulties Questionnaire (SDQ; Goodman, 1997), Children's Anxiety Life Interference Scale (CALIS; Lyneham et al., 2013) and Emotions Development Questionnaire (EDQ; Wong, Heriot, & Lopes, 2009) to parents. It was planned for measures to be collected from various informants to gather an understanding of not only whether participants themselves noticed a difference in their anxiety over time, but whether teachers and parents also noted similar changes.

Child Self-Reported Anxiety

A measure of self-reported anxiety was used, adapted from the Subjective Units of Distress/Discomfort Scale (SUDS; Wolpe, 1969) which originally used a 0 to 100 scale. SUDS have been shown to be a valid measure of distress (e.g. Kaplan & Smith, 1995), and have been used on smaller scales particularly when working with children, in order to simplify the child's decision making process (Kendall et al., 2005). The current study asked participants to respond to the prompt "How worried do you feel today?" on a four-point rating scale, where 1 = Not Worried, 2 = A Bit Worried, 3 = Very Worried, 4 = Extremely Worried. These ratings were shown alongside a visual of an anxiety thermometer which is recommended when working with children (Kendall et al., 2005).

This measure was used as it was quick to administer at the start of each group session, and presented in a way which was thought to be simplest for participants to understand. For adolescents with difficulties reading, a teacher's aide assisted them to read and respond to the question. Only one questionnaire was used to keep the process as easy for participants as possible, and prevent them from tiring before the group therapy session.

School Anxiety Scale – Teacher Report (SAS-TR; Lyneham, Street, Abbott & Rapee, 2008)

The SAS-TR was designed to assess anxiety in children in a school context. Factor analysis indicates two subscales, a social anxiety subscale and a generalised anxiety subscale (Lyneham et al., 2008). The SAS-TR has been found to have acceptable internal consistency (Cronbach's alpha coefficient for the total scale = 0.93, for the social anxiety subscale = 0.92 and for the generalised anxiety subscale = 0.90; Lyneham et al., 2008). Cronbach's alpha for the current sample was $\alpha = 0.78$ for the total scale, $\alpha = 0.87$ for the social anxiety subscale and $\alpha = 0.78$ for the generalised anxiety subscale. The recommended cut off for anxiety on the SAS-TR total scale is 17, while the recommended cut off for the social anxiety subscale is 8 and the generalised anxiety subscale is 10.

This measure provides an indication of change in anxiety specifically in the school context. It was used as it was short enough for the teacher to be able to complete it for all participants pre and post intervention.

Measures Administered to Parents

The intention was to collect measures from parents both pre-intervention and post-intervention. The questionnaires administered were the SCAS (Spence, 1998), SDQ (Goodman, 1997), CALIS (Lyneham et al., 2013) and EDQ (Wong, Heriot, & Lopes, 2009). Only 61.9% of parents provided pre-intervention data and 28.6% provided post intervention data. Due to low rates of completion, parental data is not reported.

Procedure

The research was approved by the university ethics committee (Approval No: 2015000482-31). The school principal was contacted by the research team and independently agreed for the students to participate in the study. All parents of adolescents with ID in the senior school were provided with information on the program and invited to participate. All

parents provided consent for their child to participate in the *Fearless Me!* program. All students were eligible to participate as they all had ID in the borderline, mild or moderate ranges, and all were verbal. As this study aimed to assess the feasibility of the *Fearless Me!* program, no pre-screening for anxiety was conducted and all students were included in the program.

Participants completed the self-reported measure of anxiety at three baseline time points and at the start of each intervention session (Figure 1.). The teacher completed the SAS-TR for each student before and after the intervention. Pre and post parent questionnaires were sent home with the participants and returned via the participants. The clinicians did not have direct communication with parents and follow up for questionnaires was conducted via staff at the school.

FIGURE 1 HERE

The intervention was delivered to the participants in their two pre-assigned classes based on age and ability level. The junior group comprised of ten participants who were aged 12-15 years, and the senior group comprised of 11 participants aged 14-18 years. The class teacher and up to three teacher's aides were present to facilitate the running of the program and assist the participants at each session.

A registered psychologist (AH) who led the development of the program delivered ten 45-minute intervention sessions over a period of six weeks to the two groups in their school classrooms, during class time. The psychologist who delivered the program had prior experience working with children and adolescents with ID, and the remainder of the research team have all been involved in delivering therapies to people with ID and others with neurocognitive deficits. As *Fearless Me!* was designed to be a multimodal program, all face-

to-face sessions comprised of a combination of the psychologist teaching the relevant materials, group or individual activities, and activities using the online *Fearless Me!* program to practice relevant skills. The psychologist followed a draft treatment manual that was developed for the *Fearless Me!* program. All participants were provided with a personal log-in to access the features of the *Fearless Me!* website and to continue to practice skills outside of sessions. Homework was assigned at the end of sessions, which involved using the online website to practice cognitive strategies or exposure tasks. The treating psychologist kept written notes on the treatment sessions relating to the comprehension of the materials, comments from the participants, useful versus less useful components and the engagement of the participants with the materials.

Treatment

The intervention was a CBT-based program adapted specifically for the needs of children and adolescents with ID (Hronis, Roberts, Roberts & Kneebone, 2018). The intervention consisted of ten face-to-face group sessions and an online program which breaks the elements of CBT into their simplest form and provides participants the opportunity to practice their CBT skills through a range of exercises. Each face-to-face session involved teaching materials, group or individual activities, and use of the online program. The online *Fearless Me!* program includes the following exercises:

- identifying and distinguishing between thoughts, feelings and behaviours;
- identifying unhelpful/irrational thoughts;
- challenging unhelpful/irrational thoughts;
- producing more helpful thoughts;
- using relaxation strategies; and
- developing and implementing exposure hierarchies.

The adaptations to CBT were guided by the review and recommendations provided by Hronis, Roberts and Kneebone (2017). Specifically, the adaptations included the use of multiple modalities (face-to-face and online), frequent sessions (twice weekly), material presented verbally and visually, engaging implicit learning processes (role plays and hands-on activities), use of videos to facilitate understanding and assist with attention, use of relevant and concrete examples when teaching cognitive restructuring, breaking concepts down to their component parts (particularly cognitive aspects), frequent sessions (twice per week), repeated practice of tasks and use of a text to speech function on the website. Cognitive restructuring was broken into its simplest form and taught in steps, helping participants first identify thoughts, then distinguish thoughts from emotions and behaviours, following by “catching” (i.e. recognising) unhelpful thoughts, examining whether a thought was fact or not, and eventually challenging unhelpful cognitions.

The intervention was initially designed to be implemented in the same way for the junior and senior groups. However as is evident in Figure 2, in response to experience within the program there were differences in sessions six, seven and eight, such that the junior group required additional practice identifying and distinguishing between thoughts, feelings and behaviours before proceeding on to identifying unhelpful thoughts. As there were children with a range of varying anxiety concerns in the group, the program focused generally on reducing anxiety and building adaptive coping skills without specifically targeting any one anxiety disorder.

FIGURE 2 HERE

Data Analysis

Graphs were drawn and visual analysis was used to compare the repeated measures of anxiety provided by the participants over baseline and intervention (Parker, Cryer, & Byrns, 2006; Parsonson & Baer, 1992; Smith et al., 2012). Last observation carried forward (LOCF) was used for missing data from the child responses. This approach to managing missing data was deemed appropriate as no participants dropped out of the trial, and the percentage of child data missing was low (7.33%). LOCF was used for child data where participants had missed an intervention session due to illness or other commitments. No data was missing from the teacher responses.

The Reliable Change Index (RCI; Jacobson & Truax, 1991) was also calculated to evaluate whether significant changes were evident on the SAS-TR for each participant. The RCI indicates whether an individual change score (i.e. difference between a child's pre-intervention and post-intervention score) is statistically significantly greater than what may occur due to random error (Jacobson & Truax, 1991; Guhn, Forer, & Zumbo, 2014). The formula for reliable change is calculated using participants' difference scores and the standard error of the measure (S_E), where the formula is:

$$RCI = (x^2 - x^1)/S_E, \text{ where } S_E = SD\sqrt{1 - r}$$

If the RCI is greater than +/-1.96, the difference is reliable as a change of that size would not be expected from unreliability of the measure (Jacobson & Truax, 1991).

Results

Uptake of the Intervention

All participants completed the intervention ($N = 21$), with the average number of sessions attended 8.95 of 10 ($SD = 1.01$, range = 6.5 to 10). All participants used the *Fearless Me!* online program in sessions, however only four of the 21 used the program outside of

sessions ($M = 1.75$, $SD = 0.96$). As a large portion of the homework involved participants using the website at home, most of them did not complete the homework tasks assigned.

Observational data

The initial intention was to deliver the same intervention to both the junior and seniors classes, however observation of the participation in the intervention indicated that some modification was necessary for the junior group. While participants in the senior group were more easily and quickly able to understand the cognitive components of CBT and progress to identifying and challenging unhelpful thoughts, the junior group required additional practice in differentiating thoughts, feelings and behaviours. As a result, the program was modified to accommodate this and additional time was spent consolidating this step (see Figure 2). It was also observed that a number of the adolescents with more severe intellectual disabilities had greater difficulty navigating some components of the website. This was accommodated for via practical strategies such as having a teacher's aide assist them, and saving their log in details to the computer in order to make the process easier.

Based upon observational data and the comments of participants, the videos in the *Fearless Me!* program were engaging and easy to follow. Participants reported using these videos to practice their relaxation strategies (paced breathing and progressive muscle relaxation). The use of a video story about "Brave Ben" to explain the benefit of exposure exercises was also well received, and participants would often refer to the main character of the story when discussing their own exposure tasks. P21 was noted to report "*I am going to be like Brave Ben!*" when referring to her exposure task, and P7 reported enjoying watching the Squeeze and Relax video and that "*I like to practice being calm*". Some evidence of generalisation of cognitive and relaxation skills was also evident, as many of the adolescents

reported using their skills while on school camp to engage in activities which were anxiety provoking, and during other stressful day-to-day events. P15 and P18 for instance reported that they “*used Balloon Breathing to help stay calm when the trains were cancelled*” and they had difficulty getting home from school.

The assessment instruments used to collect data from the participants (SUDS) and teacher (SAS-TR) appeared to be simple to use and an appropriate length. Participants did not appear to have significant difficulty completing these and would often spontaneously draw an image to accompany their rating, such as a face or a situation which they could link to their mood. The measures administered to parents were completed in full by those who returned the questionnaires and therefore there did not appear to be an issue with the length of the questions. Overall there did not appear to be issues with the timing and utility of the assessment instruments, but rather with the practicalities of communicating with parents in order to follow up on their completion. The elements of the program which appeared to work well include the combination and face to face and computer activities, the use of instructional videos, breaking tasks into small steps, and repeated practice of cognitive skills.

Child Self-Reported Anxiety

As this was a case series design, each child’s data was analysed individually. Select child self-reported ratings of anxiety are shown in Figure 3. These depict an overall trend towards reductions in anxiety. For a number of participants who reported initial elevated levels of anxiety, overall decreases in self-reported anxiety through the program are evident as represented by regression lines. See Supplementary File 1 for graphs for all participants.

FIGURE 3 HERE

Teacher-Rated Anxiety

On the SAS-TR, three participants in the junior group showed significant reductions on the social anxiety subscale (P3 [RCI = 4.51]; P6 [RCI = 2.26]; P9 [RCI = 2.82]) and one participant had significant reductions on the SAS-TR total scale (P3 [RCI = 2.85]) (Figure 4). Prior to the intervention, four of the ten participants in the junior class were above the recommended cut off for anxiety on the SAS-TR total scale, four were in the elevated range for generalised anxiety and four were in the elevated range for social anxiety. Post intervention, two were in the elevated range for social anxiety, one in the elevated range for generalised anxiety and two in the elevated range on the total scale. Thus while not all participants showed significant reductions, there were decreases in anxiety which are clinically meaningful in placing them beneath the recommended cut off for elevated anxiety. Following treatment, 19 participants were beneath the recommended cut off for elevated anxiety on the social scale, 16 were beneath the cut off on the generalised anxiety scale and 14 below the cut off for the total SAS-TR scale.

FIGURE 4 HERE

Two participants in the senior group showed significant reductions on the SAS-TR social anxiety subscale (P19 [RCI = 2.26]; P21 [RCI = 3.39]), four participants showed significant reductions on the generalised anxiety scale (P13 [RCI = 2.26]; P15 [RCI = 2.26]; P17 [RCI = 2.72]; P18 [RCI = 3.17]) and four had significant reductions on the SAS-TR total scale (P17 [RCI = 2.54]; P19 [RCI = 2.54]; P20 [RCI = 2.22]; P21 [RCI = 2.85]) (Figure 5). Prior to the intervention six of the eleven participants in the senior class were above the recommended cut off for anxiety on the SAS-TR total scale, eight were in the elevated range

for generalised anxiety and two were in the elevated range for social anxiety. Post intervention, five were in the elevated range on the total scale, five in the elevated range for generalised anxiety and none were in the elevated range for social anxiety. Similar to the junior class, decreases in anxiety may not have been statistically significant for all participants, but are clinically meaningful for some by placing them beneath the cut off for elevated anxiety. One participant, (P11) showed significant increases in anxiety on the SAS-TR generalized anxiety subscale (RCI = -2.26) and total scale (RCI = -2.54).

FIGURE 5 HERE

Discussion

To our knowledge, the current study is the first published study to evaluate a CBT-based intervention for anxiety in children and adolescents with ID. The aims were to establish the feasibility and acceptability of a multimodal program, and evaluate the effect on anxiety. Overall, it appears that the program is appropriate for adolescents with mild to moderate intellectual disabilities, with good uptake and engagement. For the majority of individual participants who had heightened levels of anxiety prior to treatment, the *Fearless Me!* program was found to provide either significant reductions in anxiety, or reductions which placed participants within the non-elevated range of anxiety. These findings are consistent with previous literature indicating that CBT is effective for reducing anxiety in typically developing children and adolescents (Crowe & McKay, 2017; Reynolds, Wilson, Austin, & Hooper, 2012), and for adults with ID and mental health disorders (Osugo & Cooper, 2016; Vereenooghe & Langdon, 2013).

We believe that the adaptations to CBT implemented in this program, including the combination of face to face sessions and the online platform to engage participants, was a strength of the study. The *Fearless Me!* program involved colours, images, teaching videos, interactive practice tasks and text to speech functions, all of which were specifically designed to accommodate the needs of children and adolescents with ID. An additional strength of the study was that measures were collected from multiple informants, including the adolescents themselves. It also appears that with the necessary supports (i.e. staff and teacher's aide), it is feasible to deliver the program in a school setting. The current trial also followed a draft manualised protocol. Following the feasibility study, the *Fearless Me!* treatment protocol has been modified to reflect the adaptations made to meet the needs of the younger junior group, specifically focussing on additional repetition to establish an understanding of the difference between cognitions, emotions and behaviours (Hronis, Roberts, Roberts & Kneebone, 2018). Such protocols are endorsed by mental health professionals as supporting the delivery of services to people with ID (Hronis, Roberts & Kneebone, 2018). Clinicians report low confidence in working with people with ID, and that treatment protocols and manuals would enable them to feel more confident in working with this population

There are several limitations to this study. Three baseline data points were collected from the participants prior to the intervention, however stable baseline could unfortunately not be established for all participants due to the group nature of the program and the set start date. Additionally, there were low completion rates of the questionnaires from parents which prevented further examination of change in anxiety, as well as low rates of use of the *Fearless Me!* online program outside of group sessions and of homework completion. Due to the low rates of homework completion, it was not possible to compare participant characteristics or response to intervention for those who did complete homework and those who did not. Low

parental input may have influenced the results of this research, as children with ID often have difficulties generalising concepts and would require assistance to do so (Machalicek, Lang & Raulston, 2015). Thus while some improvements were seen in the participants' anxiety based upon teacher reports, it is possible that these changes did not generalise to situations outside of the school or classroom. It was noted that approximately half of the sample had elevated levels of anxiety, which appears to be representative of population statistic for anxiety in children and adolescents with ID (Einfeld, Ellis, & Emerson, 2011; Tonge & Einfeld, 2000), however as not all participants had heightened levels of anxiety prior to the intervention, this limits conclusions about the program's effect on anxiety.

In spite of limitations, the current case series indicates that CBT may have the potential to reduce anxiety in children and adolescents with ID and anxiety, and that an adapted form of CBT is feasible with this population. Participants were able to engage with the skills taught in the program and reported applying them to situations outside of group sessions where they experienced anxiety. Lack of direct communication between the clinician and parents was noted to be a significant barrier as parents were not always aware of what the adolescents were learning in the groups, homework tasks, how their child was progressing with the skills and how they could assist outside of sessions. In future trials of the program greater parental involvement should be encouraged, for example by asking parents to attend each therapy session with their child, as well as attend a pre and post assessment sessions. This might also not only allow routine collection of data from parents, but also enable them to have a greater understanding of the skills being taught, how their child is able to use the skills and how parents may be able to assist outside of sessions. It is also hoped that parents being involved in the intervention in this way may encourage children and adolescents to use the online *Fearless Me!* program at home to facilitate practice of skills. In addition, changes which may benefit

future trials of the program would include spending additional time consolidating the difference between thoughts and behaviours for younger children, having a carer to assist with navigation of the website, and potentially creating additional videos to facilitate learning.

Conclusion

Overall, this case series is an important first step in exploring how CBT can be adapted for young people with ID and mental health disorders, and provides an alternate to behavioural interventions. Further group and individual trials of adapted CBT and the *Fearless Me!* program are warranted, along with treatment component analyses to determine the most important active ingredients of CBT for children and adolescents with ID.

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Table 1. Relevant demographic and diagnostic information for participants (where available).

Junior Group	
Participant 1 (P1)	Additional information not available
Participant 2 (P2)	Diagnoses: Moderate ID; Down Syndrome Age: 13 years 4 months Intervention for mood difficulties: none Anxiety triggers: loud noises, escalators, social situations, the dark
Participant 3 (P3)	Additional information not available
Participant 4 (P4)	Diagnoses: Mild ID; ADHD Age: 13 years 1 month Intervention for mood difficulties: none Anxiety triggers: escalators
Participant 5 (P5)	Diagnoses: Mild ID; Williams Syndrome Age: 13 years 4 months Intervention for mood difficulties: none Anxiety triggers: none
Participant 6 (P6)	Diagnoses: Mild ID; ADHD; Epilepsy Age: 13 years 7 months Intervention for mood difficulties: none Anxiety triggers: animals (specifically dogs and cats), public speaking
Participant 7 (P7)	Diagnoses: Moderate ID; ADHD; Anxiety; Post Traumatic Stress Disorder (PTSD) Age: 13 years 9 months Intervention for mood difficulties: yes – monthly over three years

	Anxiety triggers: separation from parents, incomplete tasks, tests, hospitals, ambulances, night/dark
Participant 8 (P8)	<p>Diagnosis: Moderate ID</p> <p>Age: 15 years 5 months</p> <p>Intervention for mood difficulties: none</p> <p>Anxiety triggers: unfamiliar places, change of plans, public speaking, social interactions, incomplete tasks</p>
Participant 9 (P9)	<p>Diagnosis: Moderate ID</p> <p>Age: 14 years 9 months</p> <p>Intervention for mood difficulties: none</p> <p>Anxiety triggers: thunderstorms, talking in class, speaking to unfamiliar people</p>
Participant 10 (P10)	<p>Diagnoses: Mild ID; ADHD</p> <p>Age: 15 years 4 months</p> <p>Intervention for mood difficulties: none</p> <p>Anxiety triggers: none</p>
Senior Group	
Participant 11 (P11)	Additional information not available
Participant 12 (P12)	Additional information not available
Participant 13 (P13)	<p>Diagnoses: Mild ID; ADHD</p> <p>Age: 14 years 9 months</p> <p>Intervention for mood difficulties: none</p> <p>Anxiety triggers: public speaking, social interactions, answering questions/speaking in class</p>

Participant 14 (P14)	Additional information not available
Participant 15 (P15)	Additional information not available
Participant 16 (P16)	Diagnoses: Moderate ID; ADHD Age: 17 years 8 months Intervention for mood difficulties: none Anxiety triggers: none
Participant 17 (P17)	Additional information not available
Participant 18 (P18)	Diagnoses: Mild ID; ADHD; Generalised Anxiety Disorder; Expressive and Receptive Language Disorder Age: 18 years 6 months Intervention for mood difficulties: individual and group therapy (unspecified duration) Anxiety triggers: social interactions, making mistakes
Participant 19 (P19)	Diagnoses: Moderate ID; Down Syndrome Age: 17 years 10 months Intervention for mood difficulties: individual psychological intervention regularly over past four months. Anxiety triggers: sticky objects e.g. band aids
Participant 20 (P20)	Additional information not available
Participant 21 (P21)	Diagnoses: Moderate ID; ADHD: Autism Spectrum Disorder Age: 17 years 11 months Intervention for mood difficulties: none Anxiety triggers: separation from parents, losing a personal item

Note: Age calculated at the first intervention session.

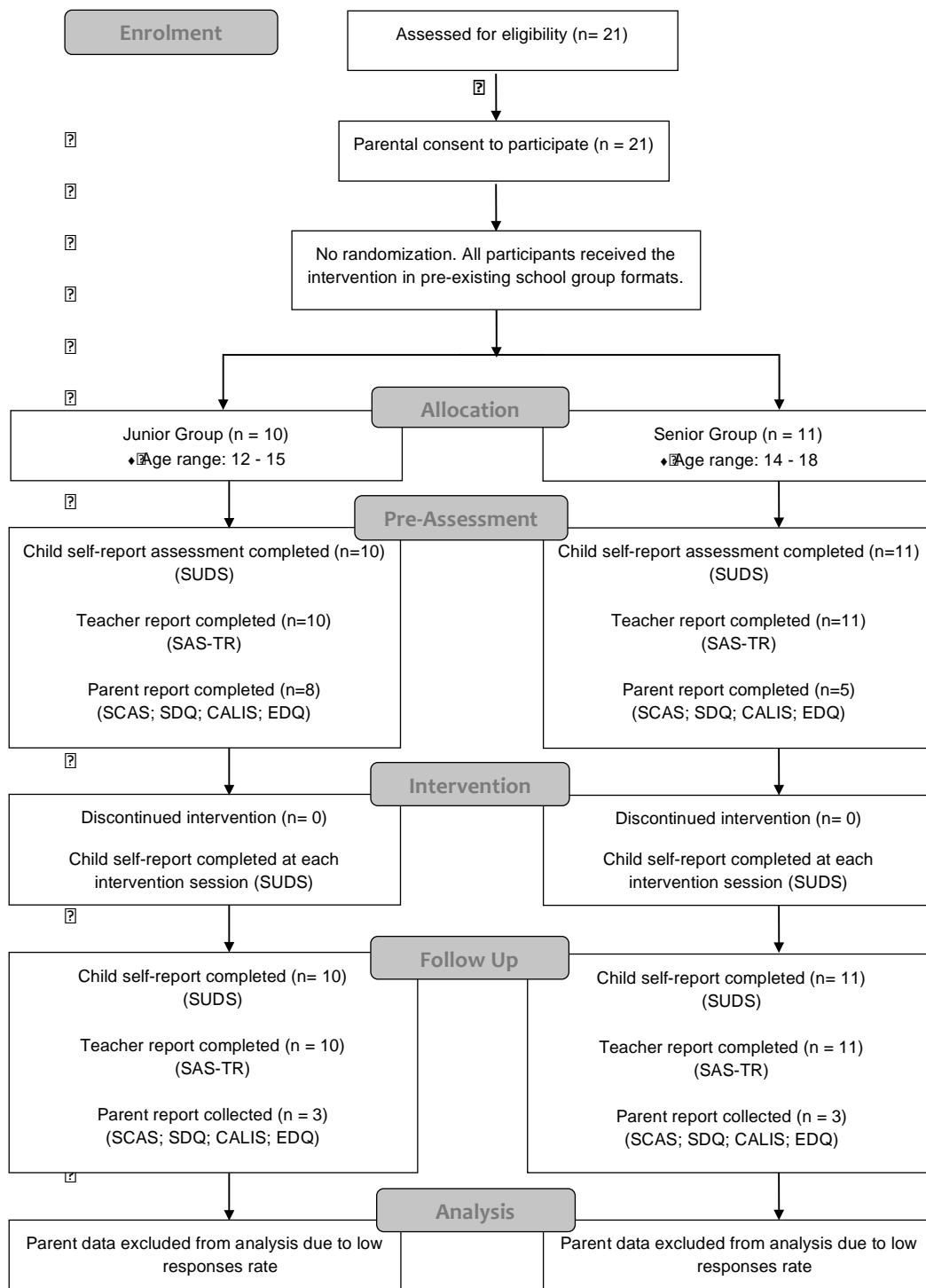


Figure 1. CONSORT diagram of intervention process.

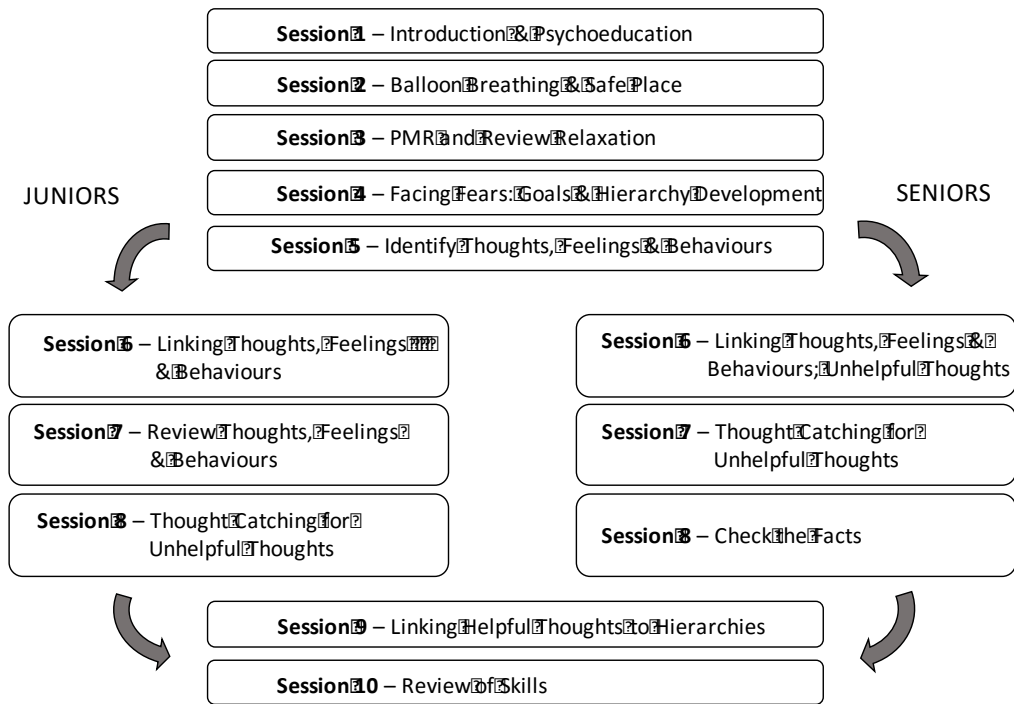


Figure 2. Treatment structure for Junior and Senior groups.

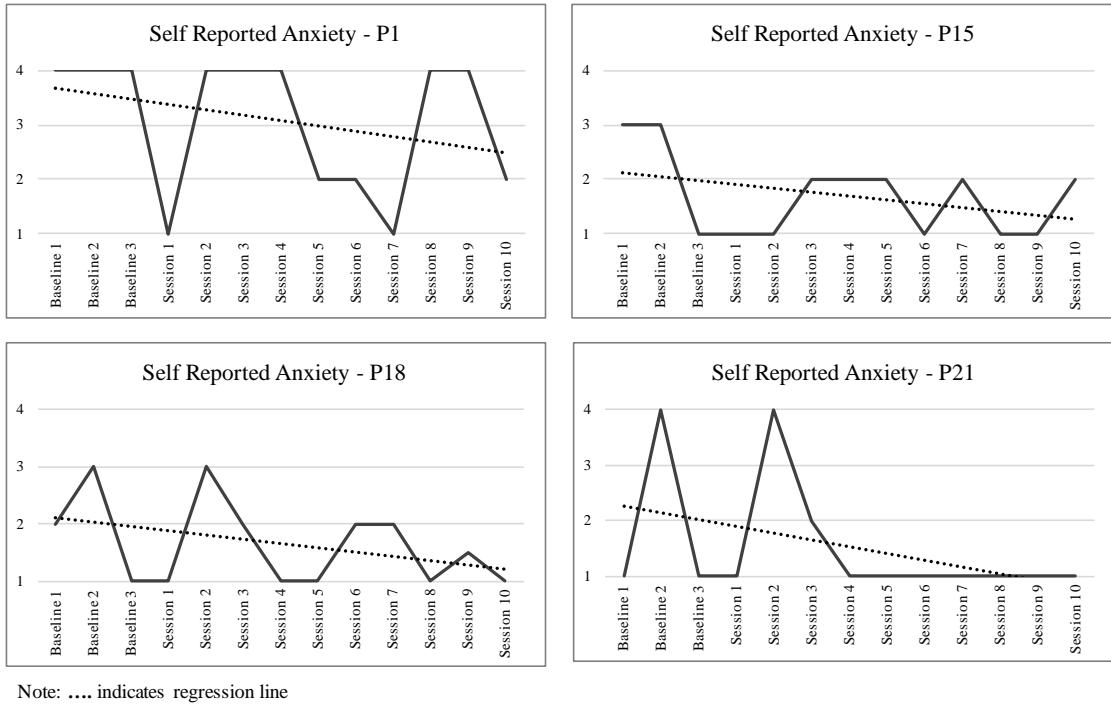


Figure 3. Child self-reported anxiety across baseline and intervention for participants with reductions in anxiety.

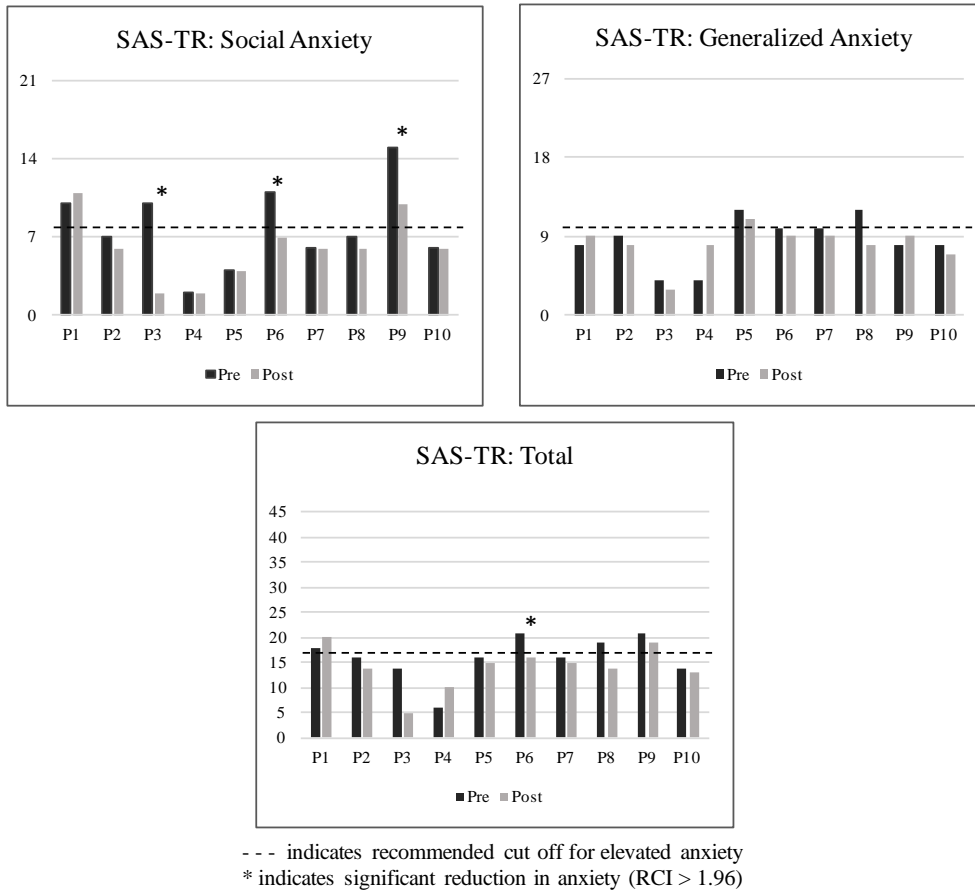


Figure 4. Junior group pre and post intervention results on the School Anxiety Scale – Teacher Report, Social Anxiety subscale, Generalized Anxiety subscale and Total scores.

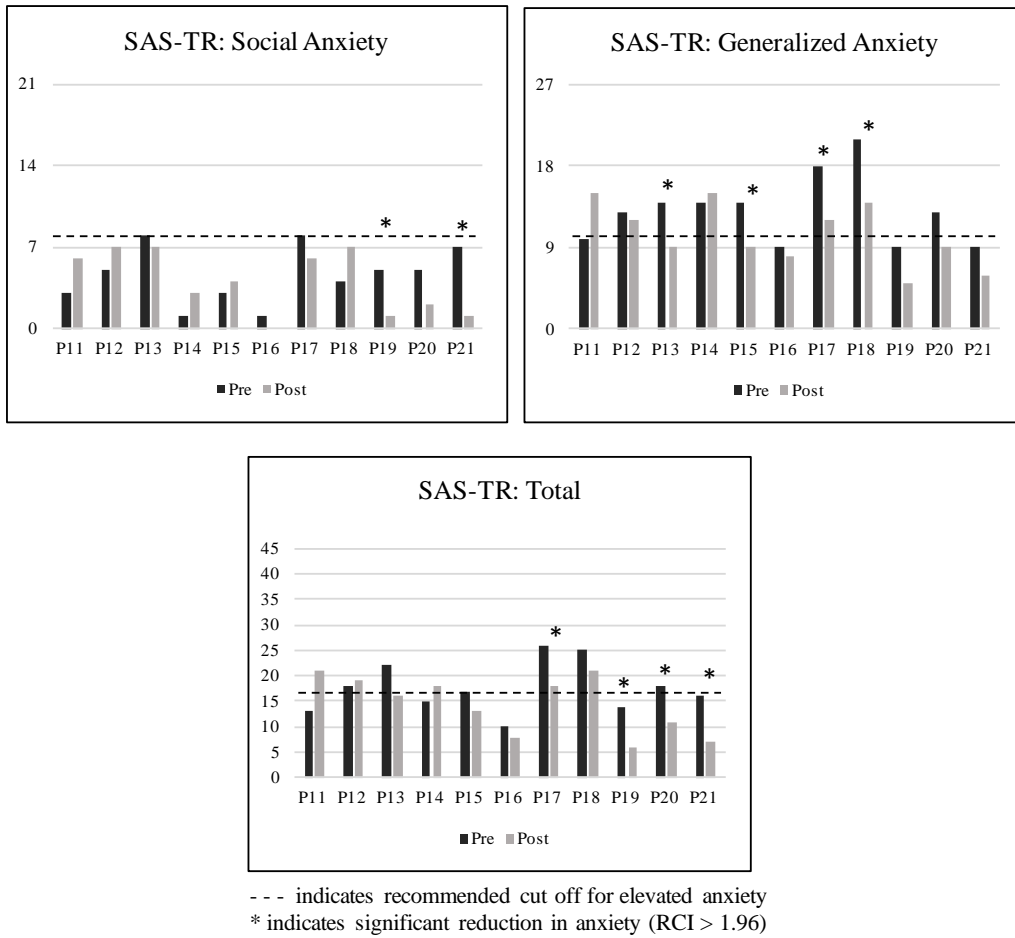


Figure 5. Senior group pre and post intervention results on the School Anxiety Scale – Teacher Report, Social Anxiety subscale, Generalized Anxiety subscale and Total scores.