Abstract

Objective: Computerized cognitive behavioral interventions for anxiety disorders in adults have been shown to be efficacious, but limited data are available on the use of computerized interventions with young people. Adolescents in particular are difficult to engage in treatment and may be especially suited to computerized technologies. This paper describes the results of a small randomized controlled trial of the *Cool Teens* program for adolescent anxiety and examines potential barriers to treatment and user preferences of computerized technology in this population. Method: Forty-three adolescents with a primary diagnosis of anxiety were randomly allocated to the *Cool Teens* program, a twelve week computerized cognitive behavioral therapy program for anxiety management, or a twelve week wait list. Effects on symptoms, negative thoughts and life interference were assessed at post-treatment, and 3-month follow-up based on diagnosis as well as self and maternal report. Results: Using mixed-model analyses, at post and follow up assessments adolescents in the *Cool Teens* condition, compared to wait list, were found to have significant reductions in the total number of anxiety disorders, the severity of the primary anxiety disorder, and the average severity for all disorders. These results were matched by significant reductions in mother and child questionnaire reports of anxiety, internalizing symptoms, automatic thoughts and life interference. Further few barriers to treatment were found and user preferences indicated that the computerized treatment was well suited to anxious adolescents. Conclusions: The *Cool Teens* program is efficacious for treating of adolescent anxiety. Australian New Zealand Clinical Trials Registry number ACTRN12611000508976.

Introduction

Adolescent anxiety disorders are common [1] and predict a broad range of subsequent psychopathology and associated life impairment [2-4] that if left untreated tend to persist into adulthood [5]. Cognitive behavioral therapy (CBT) programs have demonstrated significant benefits in a number of controlled trials [1, 6-8]. A qualitative review of 13 studies demonstrated that CBT resulted in a 56% remission rate versus 28.2% for controls [8]. However, adolescents were under-represented in this review and in most studies to date.

Clinical experience suggests that anxiety in this group presents additional treatment challenges due to difficulties with engagement and motivation at this developmental stage [9-11]. While there is evidence to suggest that age is not a significant moderator for treatment effectiveness in child anxiety [1], the majority of studies have not included adolescents over the age of 14 years. Despite the efficacy of treatments for anxious youth, access to treatment services remains a problem and it is estimated that only 1 in 4 young people receive professional help [12-13]. Many young people do not readily access mental health services for anxiety and, when they do, they commonly encounter barriers to ongoing contact including perceived lack of privacy and confidentiality, stigma, cost of accessing services, geographic or social isolation, other rural and remote issues, engagement of participants, shortage of trained therapists and the format of therapy [14-16]. In order to increase and improve access to treatment, young people may benefit from creative and innovative approaches that transcend many existing service boundaries.

One such innovative approach is the use of computerized treatment. The advantages and disadvantages of computerized CBT have been proposed by various authors [17-23]. A large number of computerized programs have now been designed, developed, and evaluated for several types of anxiety disorder in adults and have shown strong efficacy e.g. [24-25]. Two reviews of the literature have shown that internet treatments for anxiety in adults can produce large effect size changes (approximately 1) [25-26]. Importantly, interventions that include therapist support typically show larger effects than interventions without therapist support.

Research on computerized interventions for young people has lagged behind. Nevertheless, two recent trials have reported on the efficacy of computerized programs with anxious younger children [27-28]. Over the past several years two programs aimed specifically at anxious adolescents have been developed: BRAVE online [29-30] and *Cool Teens* [31-32]. While both programs have minimal therapist-assistance, BRAVE is internet reliant, has 15 x 1 hour sessions with staggered access to content, online homework tracking and excludes 4 of the anxiety disorders, in contrast *Cool Teens* is CD-ROM based and has: high quality audio and video components, 8 x 30 minute modules, free access to all content with recommended order and includes all anxiety disorders. Both

programs have demonstrated early evidence of efficacy by reporting success with case studies. Spence and colleagues reported a case study of a 17 year old boy with social phobia who after treatment no longer met criteria for an anxiety disorder [30]. We recently reported on the use of *Cool Teens* with 5 adolescents aged 14-16 [33]. At post treatment, 3 were free of their presenting disorder and allreported significant reductions in anxiety on self-report measures. Recently Spence et al. [34] reported on the full trial comparing internet CBT to face-to-face CBT and waitlist control in anxious adolescents aged 12-18. Internet and face-to-face treatment produced similar benefits and were significantly greater than waitlist, especially at the one-year follow-up.

The aim of the current study was to conduct a fully randomized controlled trial to evaluate the efficacy of a computerized program for adolescent anxiety. Treatment involved the *Cool Teens* computerized program supplemented with telephone contact from a therapist. The primary outcome was diagnosis and secondary outcomes included measures of symptoms and life interference, as well as barriers to treatment and user preferences. Compared to the waitlist condition it was hypothesized that the Cool Teens program would result in significant and lasting improvements in anxiety on the primary and secondary outcome measures.

Method

Participants

Forty-three anxious adolescents aged 14-17 years (mean age = 15.17, SD = 1.11, males = 16) participated in the trial with their mothers. Inclusion criteria were that adolescents met DSM-IV criteria for a primary anxiety disorder assessed using a structured clinical interview (see Table 1), and regular access to a home computer. Exclusion criteria were: current self harm, suicidal ideation, psychosis, bipolar disorder, being in a sexually or physically abusive environment or were more than one grade behind their peers. All participants were asked not to make any changes to their medication status during the course of the trial. Participants were compliant (90%) with no significant differences between groups $t(28)=1.74$, $p=.09$.

Participants were recruited using a variety of methods including: flyers on school and community notice boards, information in school newsletters, direct referrals from professionals or word of mouth. Recruitment was Australia wide, but was most concentrated in the state of New South Wales where the clinic is based. Participants predominately lived in Sydney city within one hour of the clinic (68%), others came from rural NSW (26%), or other states and territories of Australia (5.1%).

Measures

Diagnostic Clinical Interview. Participants and their mothers completed the ADIS-IV-C/P [35] over the telephone, which has been shown to be a reliable method of diagnostic assessment [36]. Diagnoses and clinical severity ratings were assigned using a scale (0-8) based on composite parent and child report with the primary disorder being the most interfering. Assessments were conducted by graduate students in clinical psychology who were trained on the ADIS and given regular supervision. The interviews were videotaped and a total of 40% of tapes were coded to assess reliability. Inter-rater reliability for the presence of a disorder in the child's profile was k=1.0 (100% agreement) for separation anxiety disorder, k=1.0 (100% agreement) for generalized anxiety disorder and k=0.77 (94% agreement) for social phobia.

Symptom Measures. The Spence Children's Anxiety Scale – Child Version (SCAS-C)[37] was used to assess child reported anxiety symptoms, and the corresponding Spence Children's Anxiety Scale -Parent Version (SCAS-P) [38] was administered to parents. Both measures contain 38 items and have good psychometric properties [37, 39-40]. Internal consistency for the current sample was acceptable (child version alpha = .89, parent version = .91). The mother's report on the Strengths and Difficulties Questionnaire emotional symptoms scale (SDQEmot) [41] was used as a measure of internalizing symptoms. The SDQ has demonstrated good psychometric properties [42-43]. Internal consistency in the current sample was acceptable (alpha = .72). The Children's Automatic Thoughts Scale (CATS) [44] was used as a measure of adolescents' negative automatic thoughts. Items load onto four separate subscales of cognitive content corresponding to physical threat, social threat, personal failure, and hostility and the measure has good psychometric properties [44-46]. Internal consistency for this scale in the current sample was adequate (alpha = .95).

Life Interference. Life interference related to emotional distress was assessed using the Adolescent Life Interference Scale (ALIS: Schniering, Rapee, Forbes, Wuthrich, & Ehrenreich, unpublished, 2011). This self-report measure assesses life interference across various areas of life functioning including school, family, peers/friendships and physical health. Items are rated on a 5- point Likert scale from "not at all" to "all the time". The ALIS has demonstrated good internal consistency and validity, and a stable factor structure in initial testing with clinical samples. Internal consistency was adequate (alpha = .93).

User Preferences and Barriers to Treatment. To gauge the usability and barriers to treatment of the program, two short questionnaires were administered that had been developed in a pilot trial of the *Cool Teens* program [33, 47]. The Preferences and Attitudes Questionnaire asked participants to list their likes and dislikes about the *Cool Teens* program and to rate each of the multimedia components (e.g.videos, voiceovers) on a 5-point scale ("Very Bad" to "Very Good") and the eight CBT modules on a 4-point scale ("Very Useful" to "Not

Useful"). Participant satisfaction with the program was measured using a brief, adapted version of the Barriers to Treatment Participation Scale [48]. The scale was reduced to 10 questions about the delivery of computerized treatment (e.g., "Finding time to use the CD-ROM was difficult" "I had technical problems with the CD"). Questions were answered using a scale from 1 ("Never a problem") to 5 ("Very often a problem").

Cool Teens Program

Overview. *Cool Teens* is a computerized program based on the *Cool Kids* anxiety management program [49] and teaches cognitive behavioral therapy techniques for managing anxiety in 8 therapy modules of 30 minutes, with a strong focus on cognitive restructuring and graded exposure [32-33, 50-51]. The program uses a combination of multi-media formats (text, audio, illustrations, cartoons, and live video) to deliver information, examples, activities, and homework in an engaging way. The program includes 6 video case studies of adolescents discussing different anxiety problems and applying skills to their particular problem.

For this trial, the program was delivered by a password protected CD-ROM sent to adolescents for use on their home computer. Adolescents are supported by their parent (to an extent decided by the adolescent) and by therapist calls to the adolescent and parent. Brief parent handouts provide an overview to parents of the core strategies (psycho-education, goal setting, and graded exposure) so that they can support their adolescent.

Telephone sessions. Brief telephone sessions between the therapist and adolescent occurred after weeks 1, 2, 3, 4, 5, and 7, 9, and 11, with the aim of encouraging program use, and problem solving any difficulties with the application of the skills to the adolescent's own life (mean duration of calls = 15.62 minutes, SD = 5.50). Brief telephone calls between the therapist and the adolescent's parent occurred after weeks 1, 4, and 7 with the aim of assisting parents to help their adolescent to complete the program (mean duration = 17.16 minutes, SD = 5.92). The total average duration of therapist phone calls was under 3 hours per family (mean = 176.47, SD = 5.62). Telephone call compliance rate was near perfect (98.4%), with all modules completed by families.

Procedure

Ethics approval was gained through the Macquarie University Human Ethics Committee. During 2006-2008, families contacted the clinic via telephone or email and were sent pre-treatment questionnaires and consent forms. Diagnostic assessment was conducted over the telephone and eligible adolescents were then

randomly allocated to the active condition or the waitlist condition by the research assistant using a random number generator.

Adolescents allocated to active treatment were immediately sent the *Cool Teens* program and parent handouts, and adolescents and their parent received the therapist phone calls as described above. Adolescents allocated to the waitlist condition were asked to wait 12 weeks. Twelve weeks after baseline assessment, adolescents and their mothers recompleted the assessment measures and barriers and preferences measures and received $50 reimbursement. Adolescents on waitlist were offered treatment at this point. Three-months after the post assessment, adolescents and their parents allocated to the active condition completed post assessment measures again and received $50. Diagnostic interviews completed at post and follow up assessment points were completed by clinicians unaware of allocation status.

Data Analysis

Primary outcomes were a reduction in the number and severity of clinical diagnoses as assessed by the ADIS-IV-C/P. Secondary outcomes included reductions in life interference, symptoms of anxiety and depression, and negative automatic thoughts. Differences between groups on continuous measures (pre, post, follow up) were examined using hierarchical mixed models containing random intercept and random slope terms as well as fixed effects for treatment received. Hence, analyses were based on all participants who entered the trial. The flow of participants through the study is presented in Figure 1. Barriers to treatment were examined in terms of frequency of responses.

Despite offering payment for returned data, some data remained missing. At post-treatment, in the *Cool Teens* condition four participants did not complete ADIS, however, three completed questionnaire data, and all completed follow up assessments. At post-treatment, in the waitlist condition one participant did not complete ADIS but did complete questionnaires.

Results

Nineteen participants (8 male) were allocated to wait list and twenty-four (8 male) to the *Cool Teens* program. The two groups did not differ significantly on demographic features (see Table 1). Our sample size allowed us to detect large effect sizes (greater than .88, Cohen's d), with adequate power (80%).

Diagnostic Severity Across Time and Condition

There was a significant reduction in the total number diagnoses over time, $F(1, 31.32) = 20.82$, $p<.001$, and a significant difference between groups, $F(1, 40.89) = 12.36$, $p = .001$, which were qualified by a significant group by time interaction, $F(1, 31.32) = 6.19$, $p = .018$. Estimated marginal means, standard errors and effect sizes are presented in Table 2.

There was also a significant reduction in the clinical severity of the primary anxiety disorder in the *Cool Teens* group compared to the waitlist group as demonstrated by a significant reduction over time $F(1, 36.99) = 36.53$, $p<.001$, a significant difference between groups, $F(1,43.83) = 7.17$, $p<.001$, and a significant group by time interaction, $F(1, 36.99) = 18.24$, $p<.001$.

The mean clinician rated severity across all clinical diagnoses was also significantly reduced over time, $F(1, 38.66) = 33.64$, $p<.001$, was significantly different between groups, $F(1, 40.22) = 8.61$, $p = .006$, and showed a significant group by time interaction, $F(1, 38.66) = 15.16$, $p<.001$.

Questionnaire Measures Across Time and Condition

On the SCAS-C, there was no significant main effect of group, $F(1,41.11)-3.58$, $p = .07$, however, there was a significant main effect of time, $F(1,28.47) = 23.94$, $p<.001$, and a significant group by time interaction, $F(1,28.47) = 4.56$, $p = .04$. For the SCAS-P, there was a significant main effect for group, $F(1,39.12) = 4.34$, $p = .04$, a significant main effect for time, $F(1,27.30) = 7.64$, $p = .01$, and a significant group by time interaction, $F(1,27.30) = 12.88$, $p = .001$.

For the SDQEmot scale, there was no significant main effect for group, $F(1,39.66) = 2.13$, $p = .15$, however, there was a significant effect of time, $F(1,29.23) = 5.89$, $p = .02$, and a significant group by time interaction, $F(1,29.23) = 10.57$, $p = .003$.

For the total score on the CATS, there was a significant main effect of time, $F(1,28.19) = 9.77$, $p = .004$, but there was no significant effect for either group, $F(1,40.62) = 1.32$, $p = .26$, or for the group by time interaction, $F(1,28.19) = .84$, $p = .37$.

Finally, the ALIS showed a significant main effect reduction over time, $F(1, 29.07) = 6.08$, $p = .020$, no significant main effect for group, $F(1,41.78) = 2.13$, $p = .15$, but a significant group by time interaction, $F(1, 29.07) = 5.56$, $p = .03$.

Evaluation of Treatment Maintenance

Mixed model analyses for changes over time were used to examine changes from post-treatment to follow up to determine whether benefits from treatment were retained at the 3 month follow up. Analysis was conducted for the *Cool Teens* group only as the waitlist group received treatment at the end of the post-assessment and therefore did not complete follow up assessments. There was a main effect of time for all clinician rated and self-report measures. See Table 3. In addition, post-hoc contrasts indicated that there were no significant differences between post-treatment and follow up means for any of the clinician rated or self-report measures: total number of anxiety disorders $t(39) = .70$, $p = .49$, severity of primary anxiety disorder $t(39.13) = .26$, $p = .80$, mean severity of all disorders $t(49.60) = 1.11$, $p = .27$, SDQEmot $t(28.63) = .71$, $p = .49$, SCAS-P $t(27.37)$, $p = .81$, SCAS-C $t(28.92)$, $p = .60$, CATS total $t(29.69) = .12$, $p = .90$, and ALIS $t(28.20) = .18$, $p = .86$. All comparisons between pre and follow up were significant.

Recovery Rates

At post-treatment, 41% of participants in the *Cool Teens* condition no longer met diagnostic criteria for their primary anxiety disorder compared to no participants on wait list. At follow up, 26% of participants in the *Cool Teens* condition no longer met criteria of their primary anxiety disorder. At post treatment, 23.5% of participants in the *Cool Teens* condition no longer met criteria for any disorder compared to no participants on wait list. At follow up, 20% of these *Cool Teens* participants continued to no longer met criteria for any disorder. However, despite the modest recovery rates there were no significant differences on clinician rated or self-report measures between these two time points. See Table 3.

Barriers to Treatment and User Attitudes

Participants listed the greatest barrier to treatment as “finding time”; however, only 21% rated this as a problem “very often”, 5% “often”, 26% “sometimes”, 42% “occasionally” and 5% “never”. Ratings for all other potential barriers fell between “never a problem” and “sometimes a problem” (See Table 4).

For the User preferences and attitudes, participants rated all features (text, video, audio, interactive forms, cartoons, flowcharts, appearance of the program) as “average” to “good” with the highest rating of “good” to “very good” going to the interactive forms. Regarding the usefulness of the program modules, no modules were rated as “not useful”, and the average rating was “quite useful”. Adolescents were also given the opportunity to write comments about the program with the most common responses being that they liked: listening to the characters’ stories, anxiety education, calming music, and that it was easy to use, and they most

disliked the fact that it was hard to find time to use the program and do the homework tasks. One young person reported that, "I liked the fact that it worked and that I had positive results". Overall the user feedback suggested that the program was highly acceptable to adolescents.

Discussion

This study reports on the efficacy of the computerized *Cool Teens* program with parent support and therapist phone calls compared to a twelve week wait list. The results indicated that compared to waitlist, adolescents using the *Cool Teens* program demonstrated significant improvements both in terms of clinician reported severity of anxiety as well as both self- and parent-reported measures. More specifically, compared to waitlist adolescents in the *Cool Teens* program showed a greater reduction in the total number of disorders as well as in their clinical severity. Importantly, all of these changes were maintained three months following the end of treatment.

Clinician rated changes were mirrored by changes in scores on the questionnaires. Adolescents in the *Cool Teens* condition and their mothers reported significant reductions in anxiety symptoms and severity (SCAS). In addition, mothers reported significant reductions in internalizing symptoms (SDQEmot). Adolescents also reported significant reductions in life interference. These reductions were also maintained at the 3 month follow up assessment.

However, the recovery rates were modest. There is some research suggesting that social phobia may be the least responsive of the anxiety disorders and it characterized 50% adolescents in the *Cool Teens* sample. In addition, adolescents may in fact be harder to treat than younger children. A recent adolescent internet trial[34] found lower recovery rates of primary disorder at post-treatment for internet vs face-to-face treatment respectively (36% vs 32%), and at post for any anxiety disorder (19% vs 22%), with recovery rates continuing to improve over the next 12 months. Longer follow up in our sample would have been helpful. Limitations of the study include the small sample size, relatively high socioeconomic sample, short follow up and waitlist comparison.

Examination of potential barriers to treatment and user attitudes and preferences indicated that the program was acceptable and well received by adolescents with no major barriers identified. The most significant barrier was finding the time to complete the program and homework exercises, which supported previous results from a pilot sample [47]. These particular barriers are common difficulties characterizing skills based interventions and were not overcome with computerized delivery. Further research is needed with computerized delivery to

determine whether computer based treatments can be made more effective in this population and whether they can really increase treatment adherence or provide other benefits over face-to-face. Innovative work boosting motivation and engagement with depressed teenagers[52] may provide some fruitful directions.

Our results using *Cool Teens* mirror the findings from the published case studies for the *Cool Teens* [33] and BRAVE online anxiety program for teenagers [30,34]. They are also commensurate with the findings from large randomized controlled trials examining the efficacy of computerized interventions for adults with anxiety [24-26]. Together with recent data indicating the success of computerized interventions for younger children with anxiety disorders [27-28], the current results extend the availability of computerized treatments for anxiety across most of the lifespan.

There are several advantages to the delivery of efficacious treatments using computer delivery. First, the program is clearly attractive to adolescents, who are a notoriously difficult population to engage. Second, computerized delivery allows far greater accessibility to treatment especially for rural communities. The flexibility of treatment hours and reduction of several logistic barriers (such as distance) allows computer delivery of interventions to be accessed by anyone with a computer. Although the current study relied on delivery of *Cool Teens* via CD-ROM, the programming can be easily transferred to internet delivery and this will afford even greater flexibility in the future (either CD-ROM or internet). Finally, distance interventions such as *Cool Teens* allow a marked reduction in costs and resources. In the current study, average total therapist time for each participant was under 3 hours. This is considerably less than used in standard forms of treatment delivery, which have an average of 12 (1-2 hour) sessions[53], and thus allows therapists to help a larger number of patients at a reduced cost.

There is scope to further examine innovations in the delivery of this program that may make it even more efficacious or accessible such as using: online chat, forums, text messages and web cameras. Future research should also compare the *Cool Teens* program with individual face to face CBT on efficacy, cost effectiveness, treatment adherence and attrition rates. In addition it would be useful to collect information on how often and well adolescents and parents applied specific skills. Finally it would be good to test whether computerized programs do target adolescent who otherwise wouldn't have presented for face-to-face treatment.

Continued research and implementation of these programs into health services has the potential to be of great benefit to the international community.

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Table 1

Demographic Data Across Conditions (SD in parenthesis)

Demographics	Wait List (n = 19)	*Cool Teens* (n = 24)
Sex, % female	57.9	66.7
Age (months)	185.0 (12.4)	187.9 (14.6)
Grade	10.0 (1.4)	9.7 (1.2)
English as First Language %	89.5	90.9
Family Income, %		
>$80,000	57.9	60
$40,000 – 80,000	21.0	30
$20, 000 – 40,000	15.8	5.0
$0 – 20,000	5.3	5.0
Ethnicity, %		
Australian	72.2	77.3
Asian/Asian Australian	5.6	4.5
European/European Australian	16.7	13.6
Other	5.6	4.5
School Type, %		
Public/State	50	40.9
Catholic	33.3	45.5
Private	16.6	13.6
Principal diagnoses, %		
GAD	36.8	37.5
SOC	26.3	50
SAD	5.3	4.2
PD	10.5	0
OCD	10.5	0
SPEC	10.5	4.2
ANOS	0	4.2

Comorbid diagnoses (%)		
Anxiety	94.7	77.3
Mood disorders	5.3	4.5
Other	0	18.2
No comorbidity	0	0

Note. GAD = generalized anxiety disorder; OCD = obsessive-compulsive disorder; PD = panic disorder; SAD = separation anxiety disorder; SOC = social phobia; SPEC = specific phobia; ANOS = anxiety disorder not otherwise specified.

Table 2

Estimated Marginal Means, Standard Errors & Effect Sizes (Cohen's d) for Diagnostic Severity Over Time

Parameter	*Cool Teens*			Wait List		
	Mean	Standard Error	Effect Size	Mean	Standard Error	Effect Size
Clinician Rated Number of Anxiety Disorders						
Pre-treatment	2.63	.29	1.13	3.68	.32	.22
Post-treatment	1.48	.31		3.35	.34	
Clinician Rated Severity Primary Disorder						
Pre-treatment	6.91	.25	1.69	6.95	.29	.33
Post-treatment	4.75	.29		6.58	.31	
Clinician Rated Mean Severity All Disorders						
Pre-treatment	5.75	.20	1.96	5.60	.22	0.40
Post-treatment	3.67	.23		5.20	.25	
SCAS-C						
Pre-treatment	33.96	3.63	2.14	39.00	3.99	0.30
Post-treatment	18.08	4.28		32.77	4.15	
SCAS-P						
Pre-treatment	34.18	3.79	0.83	39.26	4.14	-0.07
Post-treatment	23.00	4.07		40.72	4.24	
SDQEmot						
Pre-treatment	6.11	.55	0.89	5.95	.61	-0.30
Post-treatment	3.88	.64		6.28	.63	
ALIS						
Pre-treatment	29.61	4.10	1.09	32.37	4.51	-0.03
Post-treatment	17.61	4.80		32.10	4.68	
CATS						
Pre-treatment	31.74	4.77	0.79	36.74	5.25	0.33
Post-treatment	19.17	5.69		29.86	5.47	

Note. SCAS-C = Spence Child Anxiety Scale (child version), SCAS-P = Spence Child Anxiety Scale (parent version), SDQEmot = Strengths & Difficulties Questionnaire Emotional Symptoms subscale, ALIS = Adolescent Life Interference Scale, CATS = Children's Automatic Thoughts Questionnaire, Effect size expressed as Cohen's d, on the basis of pre–post treatment change within conditions.

Table 3

Mixed Model Analysis of Treatment Maintenance for *Cool Teens* Treatment Condition

Variables	Mean Pre	Mean Post	Mean Follow up	F	df	p
Clinician Rated Number of Anxiety Disorders	2.63	1.56	1.31	9.51	2	.00
Clinician Rated Severity Primary Disorder	6.92	4.76	4.66	26.0	2	.00
Clinician Rated Mean Severity All Disorders	5.75	3.66	3.28	36.40	2	.00
Strengths & Difficulties Questionnaire-Emotional subscale	6.13	3.85	3.47	29.47	2	.00
Spence Child Anxiety Scale-Parent version	34.33	21.86	18.92	12.15	2	.00
Spence Child Anxiety Scale-Child version	33.96	17.54	19.64	14.59	2	.00
Adolescent Life Interference Scale	29.61	16.29	17.12	7.69	2	.00
Children's Automatic Thought Scale	37.74	18.19	19.98	3.98	2	.03

Table 4.

Barriers to Treatment

Barrier	Very Often	Often	Sometimes	Occasionally	Never
Finding time	••••	•	•••••	••••• •••	•
Technical problems			••		••••• ••••• ••••• ••
Understanding the content			•	••	••••• ••••• ••••• •
Lost interest	•	•	••••• •	•••	••••• •••
Too much personal data		••	•	•••	••••• ••••• •••
Not enough therapist support		••			••••• ••••• ••••• ••
CD was boring			••••	••••	••••• ••••• •
Didn't address my problems	•	•	•	••	••••• ••••• ••••
Didn't understand tasks			•••	•••	••••• ••••• •••
Didn't want to practice tasks	•	•	••	••••• ••	••••• •••

Figure Titles:

Figure 1. Consort diagram of participants through the study.