

A Randomized Controlled Trial of the *Cool Teens* CD-ROM Computerized Program for Adolescent Anxiety

Viviana M. Wuthrich, Ph.D., Ronald M. Rapee, Ph.D.,
Michael J. Cunningham, Ph.D., Heidi J. Lyneham, Ph.D., Jennifer L. Hudson, Ph.D.,
Carolyn A. Schniering, Ph.D.

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 persons. 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 12-week computerized cognitive-behavioral therapy program for anxiety management, or a 12-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-treatment and follow-up assessments, adolescents in the *Cool Teens* condition, compared with those on the 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 adolescents with anxiety. **Conclusions:** The *Cool Teens* program is efficacious for treatment of adolescent anxiety. *J. Am. Acad. Child Adolesc. Psychiatry*, 2012;51(3):261–270. Clinical trial registration information—A randomized controlled trial of the *Cool Teens* computerized program for anxious adolescents compared with wait list; <http://www.anzctr.org.au>; ACTRN12611000508976. **Key Words:** adolescent, anxiety, computerized, cognitive behavioral therapy, randomized controlled trial

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 chal-

lenges because of difficulties with engagement and motivation at this developmental stage.^{9–11} Although 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 persons receive professional help.^{12,13} Many young persons 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 To increase and improve access to treatment, young persons 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.^{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, 2 programs aimed specifically at anxious adolescents have been developed: BRAVE online^{29,30} and *Cool Teens*.^{31,32} Both programs have minimal therapist assistance. BRAVE is Internet reliant, has 15 sessions 1 hour in length with staggered access to content and with online homework tracking, and excludes four of the anxiety disorders. In contrast *Cool Teens* is CD-ROM based and has high-quality audio and video components, eight modules 30 minutes in length and has 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 *et al.* reported a case study of a 17-year-old boy with social phobia who, after treatment, no longer met criteria for an anxiety disorder.³ We recently reported on the use of *Cool Teens* with five adolescents aged 14 to 16 years.³³ At post-treatment, three adolescents were free of their presenting disorder and all reported 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 to 18 years old. Internet and face-to-face

treatment produced similar benefits and were significantly greater than waitlist, especially at the 1-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 with 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

A total of 43 adolescents with anxiety who were 14 to 17 years of age (mean age = 15.17 years, SD = 1.11 years, 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 (Table 1), and had regular access to a home computer. Exclusion criteria were as follows: current self harm, suicidal ideation, psychosis, bipolar disorder, being in a sexually or physically abusive environment, or more than one grade behind 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, and word of mouth. Recruitment was throughout Australia, but was most concentrated in the state of New South Wales where the clinic is based. Participants predominantly lived in the city of Sydney within 1 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 Anxiety Disorders Interview Schedule for Children for *DSM-IV* (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

Download English Version:

<https://daneshyari.com/en/article/325511>

Download Persian Version:

<https://daneshyari.com/article/325511>

[Daneshyari.com](https://daneshyari.com)