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An effectiveness study of individual vs. group cognitive behavioral therapy for anxiety disorders in youth

Gro Janne H. Wergeland [a,b,c,*], Krister W. Fjermestad [a,d], Carla E. Marin [e], Bente Storm-Mowatt Haugland [a,f], Jon Fauskanger Bjaastad [a,f,g], Kristin Oeding [a,c], Ingvar Bjelland [b,c], Wendy K. Silverman [e], Lars-Göran Öst [a,h,i], Odd E. Havik [a,h], Einar R. Heiervang [a,j,k]

[a] Anxiety Research Network, Haukeland University Hospital, N-5021 Bergen, Norway
[b] Department of Clinical Medicine, Faculty of Medicine and Dentistry, University of Bergen, N-5021 Bergen, Norway
[c] Department of Child and Adolescent Psychiatry, Haukeland University Hospital, N-5021 Bergen, Norway
[d] Frambu Resource Centre for Rare Disorders, N-1404 Siggerud, Norway
[e] Child Study Center, Yale University School of Medicine, 230 South Frontage Road, New Haven, CT 06520, USA
[f] Regional Centre for Child and Youth Mental Health and Child Welfare, Uni Health, Uni Research, N-5020 Bergen, Norway
[g] Division of Psychiatry, Stavanger University Hospital, N-4068 Stavanger, Norway
[h] Department of Clinical Psychology, Faculty of Psychology, University of Bergen, N-5020 Bergen, Norway
[i] Department of Psychology, University of Stockholm, SE-106 91 Stockholm, Sweden
[j] Institute of Clinical Medicine, Faculty of Medicine, University of Oslo, N-0315 Oslo, Norway
[k] Division of Mental Health and Addiction, Oslo University Hospital, N-0424 Oslo, Norway

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ABSTRACT

Objective: Conducted a randomized controlled trial to investigate the effectiveness of cognitive behavioral therapy (CBT), and compared the relative effectiveness of individual (ICBT) and group (GCBT) treatment approaches for anxiety disorders in children and adolescents.
Methods: Referred youth ($N = 182$, M age = 11.5 years, range 8–15 years, 53% girls) with separation anxiety, social phobia, or generalized anxiety disorder were randomly assigned to ICBT, GCBT or a waitlist control (WLC) in community clinics. Pre-, post-, and one year follow-up assessments included youth and parent completed diagnostic interview and symptom measures. After comparing CBT (ICBT and GCBT combined) to WLC, ICBT and GCBT were compared along diagnostic recovery rates, clinically significant improvement, and symptom measures scores using traditional hypothesis tests, as well as statistical equivalence tests.
Results: Significantly more youth lost all anxiety disorders after CBT compared to WLC. Full diagnostic recovery rate was 25.3% for ICBT and 20.5% in GCBT, which was not significantly different. There was continued lack of significant differences between ICBT and GCBT at one year follow-up. However, equivalence between GCBT and ICBT could only be demonstrated for clinical severity rating of the principal anxiety disorder and child reported anxiety symptoms post-treatment.
Conclusion: Findings support the effectiveness of CBT compared to no intervention for youth with anxiety disorders, with no significant differences between ICBT and GCBT. However, the relatively low recovery rates highlight the need for further improvement of CBT programs and their transportability from university to community settings.

Anxiety disorders may severely impact the social and academic functioning of youth, and are risk factors for adult mental health problems (Kendall & Ollendick, 2004). Providing effective treatment for youth with anxiety disorders is therefore important. Cognitive behavioral therapy (CBT) is classified as a "probably efficacious" treatment for anxiety disorders in youth (Silverman,

* Corresponding author. Department of Child and Adolescent Psychiatry, Haukeland University Hospital, N-5021 Bergen, Norway. Tel.: +47 48176828.
E-mail addresses: gjwergeland@gmail.com, gneh@helse-bergen.no (G.J. H. Wergeland).

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Pina, & Viswesvaran, 2008). Treatment gains have been maintained for up to 19 years post-treatment (Benjamin, Harrison, Settipani, Brodman, & Kendall, 2013; Kendall, Safford, Flannery-Schroeder, & Webb, 2004; Saavedra, Silverman, Morgan-Lopez, & Kurtines, 2010). However, questions remain concerning the effect of CBT in different treatment contexts and treatment approaches for anxiety disorders in youth.

First, in terms of context, the evidence for CBT's efficacy rests mainly on randomized controlled trials (RCTs) conducted in specialized research clinics. Efficacy trials are designed for extensive control of trial factors to increase internal validity – more control than what is typically possible in community clinics (McEvoy, Nathan, Rapee, & Campbell, 2012). This includes factors relating to therapists (highly skilled therapists with relatively small caseloads; Weisz, Weiss, & Donenberg, 1992), clients (relatively homogeneous self-referred client samples with carefully diagnosed disorders; Weisz et al., 1992), and treatment context (staff and facilities dedicated to research; Southam-Gerow, Weisz, & Kendall, 2003; Weisz et al., 1992). Thus, the methodological rigor of efficacy trials to ensure high internal validity is offset to some extent with respect to external validity (La Greca, Silverman, & Lochman, 2009; Silverman et al., 2008; Weisz & Jensen, 2001). Consequently, calls have been made for more effectiveness trials with regularly referred patients treated by therapists working in community clinics (Silverman et al., 2008; Weisz & Jensen, 2001).

To date, six effectiveness trials examining CBT for a heterogeneous set of anxiety disorders in children and adolescents have been conducted (Barrington, Prior, Richardson, & Allen, 2005; Bodden et al., 2008; Lau, Chan, Li, & Au, 2010; Nauta, Scholing, Emmelkamp, & Minderaa, 2001, 2003; Southam-Gerow et al., 2010). Although the diagnostic recovery rates across most of these trials are in line with the 59% mean recovery rate reported for efficacy trials (James, James, Cowdrey, Soler, & Choke, 2013), one trial only achieved a 28% diagnostic recovery rate for family-focused CBT (Bodden et al., 2008).

A second important aspect is the treatment approach for delivering CBT. Because youth referred to community clinics and included in effectiveness trials tend to have more comorbid externalizing disorders, more often come from single-parent and low-income families, and report more strenuous life events (Southam-Gerow, Chorpita, Miller, & Gleacher, 2008; Southam-Gerow et al., 2003), their complex and multiple needs may require more flexible and individualized adaptations of treatments developed in research settings (Weisz et al., 2012; Weisz, Ugueto, Cheron, & Herren, 2013). Whether the treatment follows an individual CBT (ICBT) or group (GCBT) approach may influence the therapist's ability to individualize treatments and thus affect outcome.

Conducting a comparative trial evaluating group vs. individual therapy is important for both conceptual and practical reasons. Group treatment is likely to offer more opportunities for normalization, positive peer modeling, reinforcement, social support, and exposure to social situations (Manassis et al., 2002), and may also be more cost-effective (Flannery-Schroeder, Choudhury, & Kendall, 2005). On the other hand, individual treatment is likely to offer more opportunities for tailored treatments to address the specific needs of each patient (de Groot, Cobham, Leong, & McDermott, 2007), and avoidant behavior may be more readily addressed (Liber et al., 2008; Silverman et al., 1999). ICBT also represents an opportunity to accommodate the multiple needs of youth referred to community clinics, to a larger extent than in GCBT.

In a recent meta-analytic review of psychological treatments for anxiety disorders in youth, treatment approach was found to influence outcome (Reynolds, Wilson, Austin, & Hooper, 2012). The review included both efficacy and effectiveness trials. Across the trials, the average effect size for ICBT was large; whereas the average effect size for GCBT was medium. Further, youth self-report of anxiety symptoms was used as the sole outcome measure, as this was argued to best capture youth internalizing symptoms, and allow for a broad evaluation of psychotherapy trials. However, multi-source, multi-method assessments providing information from different perspectives are recommended. Given the above outlined differences between efficacy and effectiveness settings, combining results from efficacy and effectiveness trials may give results that not necessarily apply to community clinics. This highlights the need for studies of the relative effectiveness of ICBT to GCBT in community clinics, using multiple outcomes and perspectives.

To date, five comparative efficacy trials of ICBT vs. GCBT have been conducted (Flannery-Schroeder & Kendall, 2000; de Groot et al., 2007; Liber et al., 2008; Manassis et al., 2002; Muris, Mayer, Bartelds, Tierney, & Bogie, 2001). None of these trials found significant differences between the two approaches. However, these studies have several limitations. Only one study had sufficient sample size to detect less than a large difference in effect between the two treatment approaches (Liber et al., 2008). Two studies did not report diagnostic outcome (Manassis et al., 2002; Muris et al., 2001), three studies did not report follow-up data (Liber et al., 2008; Manassis et al., 2002; Muris et al., 2001), and one study was in a school population and not in clinically referred youth (Muris et al., 2001). Also, none of the studies adjusted their analyses for dependency among participants in the GCBT relative to participants in ICBT (i.e., partially nested design) (Bauer, Sterba, & Hallfors, 2008).

A third important issue of CBT delivery is whether youth with a principal diagnosis of separation anxiety disorder (SAD), social phobia (SOP), and generalized anxiety disorder (GAD) respond differently to treatment (James et al., 2013). Since Kendall's pioneering CBT trial with children (Kendall, 1994), most youth anxiety study samples have included participants with these disorders, and the effects of CBT have been evaluated collectively for these disorders. The main reason for this is the conception that they are manifestations of the same underlying anxiety construct, and therefore should be treated in similar ways (Crawley, Beidas, Benjamin, Martin, & Kendall, 2008; Silverman & Kurtines, 1996).

However, there are some indications of disorder-specific differences in outcome (Crawley et al., 2008; Liber et al., 2008; Manassis et al., 2002). Manassis et al. (2002) found greater reduction in mother-rated anxiety symptoms for children with GAD compared to children with SAD, SOP, or specific phobia (SP). In another study, better diagnostic outcome was found for youth with GAD and SAD compared to youth with SOP (Crawley et al., 2008). However, neither Manassis et al. (2002) nor Crawley et al. (2008) reported outcomes for comorbid anxiety disorders. Taken together, this might indicate smaller effects of CBT for SOP than GAD, although this is not unequivocal due to the combination of diagnoses in one of the studies (Manassis et al., 2002).

In Manassis et al. (2002), there also was a significant interaction effect between type of anxiety disorder and treatment approach, as children with high levels of social anxiety symptoms improved significantly more in ICBT compared to GCBT. In contrast, Liber et al. (2008) reported greater treatment gains for children with SOP in GCBT compared to ICBT, for father-reported internalizing symptoms. Thus, several unanswered questions remain about the role of ICBT vs. GCBT for youth with various anxiety disorders and to date, no studies have examined this in community clinics.

The main aim of the present study was to examine the comparative effectiveness of ICBT and GCBT in youth with SAD, SOP, or GAD referred to community clinics. CBT was first compared to waitlist, before the relative effectiveness of ICBT and GCBT was evaluated. Secondary aims included examining disorder specific outcomes and interaction effects between treatment approach and type of anxiety disorder. Based on previous effectiveness trials (Lau et al., 2010;