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The effectiveness of guided internet-based cognitive behavioral therapy for social anxiety disorder in a routine care setting

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ABSTRACT

Social anxiety disorder (SAD) is a common mental disorder with high persistence when untreated. As access to effective treatment is limited, guided internet-based cognitive behavioral therapy (ICBT) has been proposed as an effective alternative to face-to-face treatment. In this study, we examined the effectiveness of a 14-week therapist-guided ICBT program for patients with SAD undergoing routine care. From 2014 to 2017, 169 patients were included in the study, of which 145 started the treatment. The sample was all general practitioner-referred and had a lower educational level and higher rate of work absence compared to similar effectiveness studies. Regarding social anxiety symptoms, we identified significant within-group effect sizes (post-treatment: d = 1.00–1.10; six-month follow-up: d = 1.03–1.55). We also found significant effects on secondary depression symptoms (d = 0.67). Clinically significant improvement was reported by 66.2% of the participants, and 16.6% had a significant deterioration. Clinical implications of the current study are that guided ICBT for SAD is an effective treatment for the majority of the patients undergoing routine care. Future studies should explore interventions targeting non-responders and deteriorated patients.

1. Introduction

Social anxiety disorder (SAD) is associated with a fear of being negatively evaluated by others in social performance or interaction situations (Stein, 2008). It is a disorder with a global lifetime prevalence of 4.0%, with a somewhat higher percentage in high-income countries (Stein et al., 2017). The disorder is more prevalent in females than males; however, males tend to seek help more often than females (Asher et al., 2017). The median age of onset across Europe is in the mid-teens (11–17 years; Stein et al., 2017). The disorder negatively affects social and romantic relationships and academic and career achievements (Asher et al., 2017). From the perspective of the burden on society, SAD is associated with higher risks of school dropout and work absenteeism compared to the general population (Griffiths, 2013). Access to treatment for SAD is limited owing to a lack of available services and a fear of stigma (Shafran et al., 2009). Specific to SAD is also the fact that the symptoms are often perceived as personal traits like shyness, and not as a common mental disorder that may be effectively treated (Griffiths, 2013). Overall, SAD is associated with large individual and societal burdens owing to its early onset, persistence when left untreated, and high prevalence, which is why it is important to increase access to care for this group.

Clinical guidelines for the psychological treatment of SAD recommend cognitive behavioral therapy (CBT) as an individual face-to-face treatment (United Kingdom: National Institute of Clinical Excellence, CG159 ICE), or in the form of guided internet-based CBT (ICBT; Sweden: Socialstyrelsen, 2017). The first efficacy trial on the subject were published > 10 years ago and reported large effects of a guided ICBT program combined with two in-vivo exposure sessions (Andersson et al., 2006). In another early randomized controlled trial comparing telephone-supported ICBT to waiting list, the results showed large treatment effects for the intervention group but not for the control group (Carlbring et al., 2007). The results remained the same at the 30-month follow-up (Carlbring et al., 2009). Tillfors et al. (2008)

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compared guided ICBT inclusive of five exposure sessions to guided ICBT alone. The results showed large within-group effect sizes at post-treatment and at the one-year follow-up in both groups, with no between-group differences. Nordmo et al. (2015) compared the effects of combining guided ICBT with an initial face-to-face psychoeducation session (90 min) to guided ICBT without an initial face-to-face psychoeducation session. The results showed moderate to large within-group treatment effects, and no significant differences between the two groups.

The effects reported in 21 trials of guided and unguided ICBT for SAD ($N = 1801$) were reviewed by Boettcher and colleagues (Boettcher et al., 2013). Overall, there were large within-group effects at post-assessment, three-month follow-up, and five-year follow-up. Also, a moderate effect on comorbid depression was reported. In a recent meta-analysis of 20 randomized controlled trials comparing face-to-face treatment and guided ICBT (Carlbring et al., 2018), including three studies on SAD, no significant differences between guided ICBT and face-to-face treatments were identified.

In spite of an increasing number of studies confirming the efficacy of guided ICBT for SAD, it is rarely implemented in routine practice (Olthuis et al., 2016), and only a few effectiveness trials have been conducted.

In an effectiveness study ($N = 654$) from the specialist internet treatment clinic in Sweden, large within-group effect sizes of guided ICBT have been reported (Cohen's $d = 0.86–1.15$; El Alaoui et al., 2015). In this study, 90% of the sample was self-referred, 3% was on sick leave, and 8% was unemployed. On average, participants completed eight out of the 12 modules in the guided ICBT manual. In an effectiveness trial comparing a stepped-care approach (psychoeducation, guided ICBT, 12 sessions of face-to-face treatment) to 12 sessions of face-to-face treatment, 80% of the patients who recovered did so after guided ICBT (Nordgreen et al., 2016). From an effectiveness trial of transdiagnostic guided ICBT for anxiety and depression, moderate effects ($d = 0.63$) of SAD symptoms were reported (Newby et al., 2014). Another small trial ($N = 37$) reported no difference between face-to-face therapy and guided ICBT for SAD patients (Andrews et al., 2011). Even if routine care is used as a distinct category across the effectiveness trials, it differs when it comes to patients' access to care. The majority of the previously conducted effectiveness trials were on self-referred samples. We know that self-referral is associated with higher effects compared to general practitioner (GP)-referred samples (Haug et al., 2012). It is therefore, important to gain knowledge about the effectiveness of guided ICBT in a setting where patients are GP referred, which is what this study set out to achieve.

2. Method

2.1. Setting

Since 2013, the eCoping (eMeistring.no) clinic at Haukeland University Hospital, Bergen, Norway, has offered guided ICBT for panic disorder (Nordgreen et al., 2018) and SAD in routine mental health outpatient care settings. ICBT for depression was introduced in the clinic in 2015. The clinic is part of the Division of Psychiatry, Haukeland University Hospital, Norway. The catchment area of the hospital is 250,000 persons and comprises three mental health outpatient clinics. The Western Regional Committee for Medical and Health Research Ethics in Norway approved the present study (2012/2211/REK).

2.2. Design

This trial was an open effectiveness study with a naturalistic within-group design with repeated primary and secondary treatment outcomes and six-month follow-up.

2.3. Procedure

All patients admitted for specialized mental health treatment in Norway must be referred by their GP. Accordingly, referred patients admitted for treatment were invited for an initial face-to-face assessment interview at the clinic. During this meeting, patients were informed about guided ICBT as one of the treatment alternatives available.

All patients referred to one of the three mental health outpatient clinics for SAD and who were willing to consider guided ICBT as a treatment alternative were invited to a diagnostic assessment using the Mini International Neuropsychiatric Interview (MINI; Sheehan et al., 1998). Patients who were interested in starting guided ICBT and fulfilled the inclusion criteria were offered ICBT and invited to participate in this trial. The following inclusion criteria were used: 1) SAD as the main problem according to the MINI, 2) 18 years of age or older, 3) not using benzodiazepines on a daily basis, 4) if using antidepressants, a stable dosage over the previous four weeks, and 5) able to read and write in Norwegian. The exclusion criteria were: 1) current suicidal ideation, 2) current psychosis, 3) current substance abuse, 4) in immediate need of other treatment, and 5) no access to the internet. All participants signed a written informed consent form.

2.4. Treatment

The guided ICBT treatment program used in the present study builds on research from Sweden (Furmark et al., 2009; Hedman et al., 2014). The program was translated into Norwegian in 2007. Two previous studies on telephone-supported ICBT for SAD were reported from our research group (Nordgreen et al., 2016; Nordmo et al., 2015), with large effect sizes reported in both studies. Based on the preliminary results from these studies, guided ICBT for SAD was integrated into routine care in 2013.

The ICBT program for SAD comprises nine online text-based modules that include psychoeducation, working with automatic thoughts, behavioral experiments, shifting focus, and relapse prevention. The main part of treatment is defined as completing the first five modules with the following content: psychoeducation, working with automatic thoughts, and behavioral experiments. The treatment lasts up to 14 weeks. The patients spend an average of 7–10 days per module and access each module after completing the previous one. Therapist guidance was given at least once a week through a secure email system. The therapist provided guidance of an average of 10–15 min per week per patient. The treatment was implemented on an existent, secure self-report assessment IT platform.

2.5. Training

The therapists at eMeistring are co-located for one to two days per week for working with guided ICBT, with an ordinary workload during the rest of the week. In addition to a one-year continuing education, there was weekly peer supervision and monthly expert supervision.

2.6. Measures

Owing to a limitation in the platform, the self-report assessment measures were made accessible to the patients at the end of the module and not on a fixed timeline (e.g., every seven days).

2.7. Primary outcome measure

The Social Phobia Scale (SPS; Mattick and Clarke, 1998) includes 20 items rated from 0 to 4. The SPS is used to assess self-reported symptoms of SAD in performance situations (pretreatment Cronbach's alpha = 0.91). The scores on the SPS were assessed at pretreatment, after modules two–eight, at post-treatment, and at the six-month