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# The impact of social skills training for social anxiety disorder: A randomized controlled trial☆

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ABSTRACT

*Objective:* Social anxiety disorder (SAD) impacts social, occupational and academic functioning. Although many interventions report change in social distress, improvement in social behavior remains underaddressed. This investigation examined the additive impact of social skills training (SST) for the treatment of SAD.

*Method:* Using a sample of 106 adults who endorsed SAD across numerous social settings, participants were randomized to exposure therapy (imaginal and in vivo) alone, a combination of SST and exposure therapy known as Social Effectiveness Therapy (SET), or a wait list control. The assessment strategy included self-report measures, blinded clinical ratings and blinded assessment of social behavior.

*Results:* Both interventions significantly reduced distress in comparison to the wait list control and at post-treatment, 67% of patients treated with SET and 54% of patients treated with exposure therapy alone no longer met diagnostic criteria for SAD, a difference that was not statistically significant. When compared to exposure therapy alone, SET produced superior outcomes ($p < .05$) on measures of social skill and general clinical status. In addition to statistical significance, participants treated with SET or exposure reported clinically significant decreases on two measures of self-reported social anxiety and several measures of observed social behavior (all $ps < .05$).

*Conclusions:* Both interventions produced efficacious treatment outcome, although SET may provide additional benefit on measures of social distress and social behavior.



## 1. Introduction

Social anxiety disorder (SAD) is a marked and persistent fear of scrutiny in social or performance situations (American Psychiatric Association [APA], 2013). Individuals who experience social distress across a broad range of social settings[1] have severe social and general anxiety, social inhibition, fear of negative evaluation, avoidance, fearfulness, and self-consciousness and may account for up to 70% of patients seeking treatment (e.g., see Beidel & Turner, 2007 for a review).

Without treatment, SAD results in long-term functional impairment, but evidence based interventions do exist. Meta-analytic and qualitative reviews (Butler, Chapman, Forman, & Beck, 2006; Hofmann, 2010; Jørstad-Stein & Heimberg, 2009; Ponniah & Hollon, 2008) and recent individual comparative trials (Clark et al., 2006; Mörtberg, Clark, Sundin, & Wistedt, 2007; Rapee, Gaston, & Abbot, 2009; Stangier, Schramm, Heidenreich, Berger, & Clark, 2011) suggest that cognitive behavioral interventions are efficacious treatments for SAD, based on self-report and clinician ratings of improvement. Despite these positive reports, enthusiasm for current CBT outcomes must be tempered by several important limitations. First, statistically significant symptom improvement does not always meet the threshold for diagnostic remission and second, outcome assessment strategies that fail to objectively assess social behavior change do not allow an assessment of changes in functional impairment. Specifically, extent outcome data are reliant on self-report and clinician ratings, which document that CBT results in perceived decreases in social distress (e.g., Clark et al., 2006;

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[1] This study was conducted using DSM-IV-TR criteria for generalized social phobia. Unless otherwise specified, the term social anxiety disorder refers to that DSM-IV subgroup and not individuals who report distress only in restricted settings such as public speaking.

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Mörtberg et al., 2007; Stangier et al., 2011). Few studies have examined actual changes in impaired social functioning/behavior, which is an important element in SAD's clinical presentation (Beidel, Rao, Scharfstein, Wong, & Alfano, 2010). Even among the few investigations that included behavioral tasks in their assessment battery, most used the tasks only to assess social anxiety, not social behavior (Clark et al., 2006; Herbert et al., 2005; Rapee et al., 2009).

Given the plethora of available treatment trials for SAD, why the lack of attention to assessing objective social skill? First, conducting observational assessments is clearly more challenging and time-intensive than completion of subjective measures. Another reason, however, is that some conceptualizations of SAD begin with the premise that people with SAD possess adequate social skills but their ability to focus on social interactions and use the skills appropriately is hindered by anxiety. This suggests that SAD is associated with a performance deficit, not a skill deficit (Hopko, McNeil, Zvolensky, & Eifert, 2001). Theoretically then, eliminating social anxiety should allow for adequate/appropriate social skills to emerge, but few studies have directly addressed this issue. One investigation (Hope, Herbert & White, 1995) reported that group CBT (with no formal social skills training) improved social skills across both DSM-IV generalized and non-generalized subtypes. This would suggest support for the performance deficit model, but the small sample size and the limited assessment of social skill (a one item Likert scale) limits the conclusions of this investigation.

A recent review (Poniah & Hollon, 2008) reported that social skills training (SST) *alone* is not efficacious for improving social skills in adult SAD. This conclusion would be consistent with the accepted practice that exposure therapy is an essential component of treatment for anxiety disorders (Craske, Treanor, Conway, Zbozinek, & Vervliet, 2014). However, extant efficacy data for adding SST to established treatments are contradictory. On one hand, Stravynski et al. (2000) reported that SST did not enhance treatment outcome to an interpersonal approach and the majority of individuals remained symptomatic at outcome. In contrast, Turner, Beidel, Cooley, Woody, and Messer (1994) treated thirteen individuals with SAD with SST (12 sessions) followed by exposure therapy (12 sessions). Patients showed significant improvement on measures of social anxiety/distress as well as improvement in social behavior. Blinded ratings indicated that social effectiveness and social skill improved after SST but before exposure therapy. After additional exposure therapy, gains were maintained, but there was no further improvement in social skill. However, the small number of participants and the lack of randomization prohibit drawing firm conclusions about the additional nature of SST.

A more recent randomized controlled trial (Herbert et al., 2005) compared group CBT (CBGT) to SST plus CBGT. In the combined condition, SST included education, modeling, and behavior rehearsal in the context of the simulated exposure exercises, feedback and cognitive restructuring that is characteristic of CBGT. The results indicated that adding SST enhanced outcome over CBGT alone. Blinded observer ratings of social skill revealed statistically significant differences favoring the combined group, and significantly more individuals treated with the CBGT plus SST were judged as treatment responders when compared to CBGT alone (79% vs. 38%, respectively); at 3 month follow-up, the difference remained but was no longer significant (83% vs. 57%). As the authors noted, despite these improvements, post treatment scores on a self-report inventory of social anxiety fell well above the mean for non-clinical samples, suggesting continuing impairment, and the need to continue the search for efficacious treatment strategies. Although the less than optimal outcome might be due to a myriad of factors, one important consideration is that the addition of SST resulted in less time being devoted to other elements of the treatment package. Optimally, a comparative treatment trial should assess all treatment elements at full strength.

To summarize, current interventions for SAD have focused primarily on CBT in various iterations but most studies do not directly address how these interventions affect impaired social functioning. This is significant shortcoming in the existing literature because functional impairment is now a critical factor when determining the presence/absence of a psychiatric disorder (American Psychiatric Association [APA], 2013). Additionally, the inability to behave as desired is perhaps the reason why most individuals seek treatment. Furthermore, not all individuals with SAD respond to CBT suggesting that alternative strategies are necessary. Although Herbert et al. (2005) provide evidence that SST may enhance treatment outcome, those findings require replication and the interventions (including exposure therapy) must be provided at optimal strength.

In this investigation, we compared exposure therapy (EXP), a well-established treatment for SAD to a multi-faceted intervention (group social skills training plus individual exposure), known as Social Effectiveness Therapy (SET) for people with SAD. In addition to self-report and blinded clinician ratings, we attempted to address several limitations in the extant literature. First, we included direct observation of behavioral skill using several different behavioral tasks. Second, unlike most previous investigations, we assessed clinical significance as well as statistical significance, using a normative comparison group. We hypothesized that (a) both SET and EXP would produce positive treatment outcome when compared to wait list control, (b) SET would produce superior treatment outcome to EXP alone, particularly on measures of observed social behavior, and (c) treatment gains would be maintained at follow-up.

## 2. Method

### 2.1. Participants

The protocol was approved by the University IRB. Study personnel explained the project verbally to each participant, who was then given time to review the written consent. Questions were answered and no part of the study protocol was conducted until the participant signed the consent form.

One hundred nineteen (119) adults with SAD who participated in a study examining social skills deficits in SAD (Beidel et al., 2010) were invited to participate in the treatment program. Participants were recruited via clinician referral or newspaper advertisements and following an initial telephone screen, were interviewed by doctoral level psychologists or doctoral students in clinical psychology using the Structured Clinical Interview for DSM-IV (SCID; First, Spitzer, Williams, & Gibbons, 1997b) and the Structured Clinical Interview for DSM-IV Axis II (SCID-II; First, Gibbons, Spitzer, & Williams, 1997a). SAD had to be the primary diagnosis and symptom duration had to exceed 6 months. Diagnostic exclusions included the presence of psychosis, bipolar disorder or depressive disorder with active suicidal ideation and Axis II diagnoses of Borderline, Schizoid, Paranoid, or Schizotypal Personality Disorder. All other comorbid diagnoses were included. Participants on selective serotonin reuptake inhibitors (SSRIs) were allowed to continue on their medication as long as the dosage remained stable throughout the treatment phase. Three (3) participants were excluded on the basis of comorbid depression with active suicidal ideation and 10 potential participants chose not to enter the treatment protocol. Twenty percent of the diagnostic interviews were videotaped and rated by a second clinician for the purposes of calculating inter-rater reliability. For the diagnosis of SAD, agreement was excellent ($\kappa = .92$).