



# Risk profiles for poor treatment response to internet-delivered CBT in people with social anxiety disorder



Maria Tillfors<sup>a,\*</sup>, Tomas Furmark<sup>b</sup>, Per Carlbring<sup>c</sup>, Gerhard Andersson<sup>d,e</sup>

<sup>a</sup> Center for Health and Medical Psychology, JPS, Psychology, Örebro University, Sweden

<sup>b</sup> Department of Psychology, Uppsala University, Sweden

<sup>c</sup> Department of Psychology, Stockholm University, Sweden

<sup>d</sup> Department of Behavioural Sciences and Learning, Linköping University, Sweden

<sup>e</sup> Department of Clinical Neuroscience, Psychiatry Section, Karolinska Institutet, Stockholm, Sweden

## ARTICLE INFO

### Article history:

Received 18 February 2015

Received in revised form 20 May 2015

Accepted 25 May 2015

Available online 1 June 2015

### Keywords:

Social anxiety disorder

Social avoidance

Depressive symptoms

Guided internet-based CBT

Risk factors

Cluster analysis

## ABSTRACT

In social anxiety disorder (SAD) co-morbid depressive symptoms as well as avoidance behaviors have been shown to predict insufficient treatment response. It is likely that subgroups of individuals with different profiles of risk factors for poor treatment response exist. This study aimed to identify subgroups of social avoidance and depressive symptoms in a clinical sample ( $N = 167$ ) with SAD before and after guided internet-delivered CBT, and to compare these groups on diagnostic status and social anxiety. We further examined individual movement between subgroups over time. Using cluster analysis we identified four subgroups, including a high-problem cluster at both time-points. Individuals in this cluster showed less remission after treatment, exhibited higher levels of social anxiety at both assessments, and typically remained in the high-problem cluster after treatment. Thus, in individuals with SAD, high levels of social avoidance and depressive symptoms constitute a risk profile for poor treatment response.

© 2015 Elsevier Ltd. All rights reserved.

## 1. Introduction

Randomized controlled trials (RCTs) show that cognitive behavioral therapy (CBT) in various formats (individual, group, as well as guided internet-delivered self-help) is effective for people with social anxiety disorder, or SAD (e.g., Andersson, Carlbring, & Furmark, 2014; Clark et al., 2006; Heimberg, 2002; Mayo-Wilson et al., 2014). However, even with the best psychological treatments, more than one in four do not improve sufficiently (e.g., Ponniah & Hollon, 2008), and this heterogeneity in treatment response is worthy of further investigation. It is a rule rather than an exception that people have several mental health and somatic problems (Harvey, Watkins, Mansell, & Shafran, 2004), and co-morbidity is an important factor to consider in relation to treatment response. Depression and other anxiety disorders are common co-morbid problems in people with SAD (Kessler, Chiu, Demler, Merikangas, & Walters, 2005; Rapee & Spence, 2004; Schneider, Johnson, Horning, Liebowitz, & Weissman, 1992). Moreover, use of dysfunctional emotion regulation strategies like avoidance behaviors (both on

an overt and a covert level) are common in SAD. Such behaviors are positively related to clinical severity, and have been shown to maintain the disorder (Harvey et al., 2004). Importantly, it is likely the inflexible use of dysfunctional emotion regulation strategies, like avoidance behaviors, to manage intense anxiety in a range of different social situations that maintains SAD rather than the level of anxiety per se (Harvey et al., 2004). Hence, both co-morbidity and avoidance behavior could underlie heterogeneity in treatment response in individuals with SAD.

Indeed, co-morbid depressive symptoms as well as high levels of avoidance behavior have previously been shown to predict suboptimal treatment response in people with SAD (e.g., Eskildsen, Hougaard, & Rosenberg, 2010; Hedman et al., 2012; Nordgreen et al., 2012; Rodebaugh, Holaway, & Heimberg, 2004), although the results regarding depressive symptoms have been mixed (Eskildsen et al., 2010; Nordgreen et al., 2012; Rodebaugh et al., 2004). It can further be hypothesized that a combination of risk factors may particularly increase the risk for poor treatment outcome, possibly explaining the mixed findings regarding depressive symptoms as a treatment predictor. In other words, there may be subgroups of individuals with different profiles of risk factors for poor treatment response. However, when examining such risk profiles we cannot rely only on variable-oriented methods such as regression based approaches, which are commonly used in analyses of RCTs.

\* Corresponding author at: JPS, Psychology, Örebro University, 701 82 Örebro, Sweden. Tel.: +46 19 30 39 59.

E-mail address: maria.tillfors@oru.se (M. Tillfors).

First, the relationship between the predictors and outcome might not be linear. Second, there might be subgroups of people with profiles consisting of a combination of risk factors which could be hidden in variable-oriented methods (useful in understanding what characteristics co-aggregate in a group of individuals) and for which person-oriented methods (useful in finding subgroups of individuals) like cluster analysis are needed. Thus, the overall purpose of the current study was to use person-oriented, in addition to variable-oriented, methods to examine if treatment outcome in SAD is related to patterns of social avoidance and depressive symptoms.

Using cluster analysis we sought, first, to identify subgroups of social avoidance and depressive symptoms in a clinical SAD sample before and after ICBT and, second, to compare the derived subgroups on diagnostic status after treatment and on social anxiety symptom severity before and after ICBT. A final aim was to examine individual stability and movement between subgroups (clusters) from pre- to post-treatment. We hypothesized that a cluster of high social avoidance and depressive symptoms would be possible to identify and that this would be particularly characterized by poor treatment outcome.

## 2. Materials and methods

### 2.1. Design

In the current study, a clinical sample of 167 people with SAD who had received guided ICBT for SAD was examined. These data were pooled from five earlier RCTs (Andersson et al., 2006; Carlbring et al., 2007; Tillfors et al., 2008; Furmark et al., 2009, where the latter study included reports from two RCTs). The design was prospective and data for the purpose of this study were obtained at pre- and at post-treatment after nine weeks.

### 2.2. Participants and procedure

In general, the procedure was the same in all studies and will be described briefly below. Participants were recruited through advertisements and/or via a research web page (<http://www.studie.nu>). Applicants to the study had to fill out online questionnaires (Social Phobia Screening Questionnaire; SPSQ; Furmark et al., 1999, and the self-rated version of Montgomery Åsberg Depression Rating Scale; MADRS-SR; Svanborg & Åsberg, 1994), and questions regarding past and ongoing treatments including medication. If they passed this first step, they were interviewed with the Structured Clinical Interview for DSM-IV (SCID-I; First, Gibbon, Spitzer, & Williams, 1997; including the SAD-module). The inclusion criteria were the following: (a) a DSM-IV diagnosis of SAD according to the SPSQ; (b) scoring <31 on the MADRS-SR depression scale, and <4 on the suicide item of this scale to prevent the inclusion of individuals in strong need of specialist consultation; (c) not undergoing any other psychological treatment during the study period; (d) if on prescribed drugs for anxiety/depression, dosage had to be constant for 3 months before the treatment onset and kept constant throughout the study; (e) being at least 18 years old; (f) living in Sweden; (g) having access to a computer with Internet connection; (h) not reporting another serious disorder (e.g. psychosis, substance abuse) that could be expected to influence the outcome of the study; and (i) a primary diagnosis of SAD according to SCID-I. Those who did not meet the criteria were advised where they could turn for help elsewhere. The clinical sample used in the current study comprised 167 people (69% women;  $M_{\text{age}} = 34$  years,  $SD = 9.22$ ) diagnosed with SAD that all had received guided ICBT.

### 2.3. Measures

#### 2.3.1. Liebowitz social anxiety scale, the self-report version (LSAS-SR)

LSAS is an instrument for the assessment of social fear/anxiety (LSAS-F) and social avoidance (LSAS-A; Baker, Heinrich, Kim, & Hofmann, 2002; Liebowitz, 1987) in 24 potentially anxiety-provoking social situations (13 performance and 11 interactional situations). Each social situation was rated on a four-point scale with the response options ranging from: *No fear or anxiety* (0) to *Strong fear or anxiety* (3) on the subscale of social fear/anxiety. The total score of this subscale ranges from 0 to 72 where higher responses indicate higher social fear/anxiety. For the subscale of social avoidance, the response options range from: *Never* (0% of the time) to *Usually* (67–100% of the time), yielding a total score from 0 to 72, higher scores representing higher social avoidance. LSAS has good psychometric properties (Fresco et al., 2001).

#### 2.3.2. Social phobia screening questionnaire (SPSQ)

The first section of the SPSQ includes 14 questions about distress in different social situations like “Speaking or performing in front of a group,” “Expressing your own opinions in front of others,” “Calling someone you do not know very well” (Furmark et al., 1999). Each situation is rated on a five-point scale ranging from: *Not at all distressing* (0) to *Extremely distressing* (4). The total score of this section ranges from 0 to 56, higher scores indicating higher social anxiety.

The second part of the SPSQ contains diagnostic questions covering the A criteria of SAD according to the DSM-IV-TR (APA, 2000), e.g. “In the following situation(s) I fear that others will notice that I’m nervous”. Following each of these questions, the 14 potentially phobic situations from section one were listed and the respondent could indicate each situation that produced anxiety or choose “none of the situations”. The E-criterion was assessed with three yes/no questions, i.e. the person was asked whether the social fears severely interfered with or severely bothered him/her in (a) occupational or academic activities, (b) leisure time activities, or (c) social activities. In sum, people were classified as having a *diagnosis of SAD* if they rated at least one potentially phobic situation as 3 or 4 (*Very or extremely distressing*) on the social anxiety scale in the first section. This situation should be endorsed regarding the A-, B-, C-, and D-criteria in the second section, and lastly the participants should have answered ‘yes’ to at least one of the items assessing the E-criterion. Otherwise they were classified as not having diagnosis of SAD.

In a validation study using a diagnostic interview as a reference, the sensitivity of the SPSQ was found to be 100% and the specificity 95% (Furmark et al., 1999). Lastly, this 14-item distress scale in the first section has been found to correlate highly with two well-established social phobia scales, the social phobia scale,  $r = .77$ , and the social interaction anxiety scale,  $r = .79$  (Furmark et al., 1999; Heimberg, Mueller, Holt, Hope, & Liebowitz, 1992) which indicates an adequate concurrent validity for this scale.

#### 2.3.3. Montgomery Åsberg depression rating scale, the self-rated version (MADRS-SR)

MADRS-SR is a questionnaire that measures the degree of depressive symptoms (Svanborg & Åsberg, 1994). It consists of nine items that correspond to core symptoms of depression. The total score ranges from 0 to 54 with higher responses indicating higher depressive symptoms. The instrument has good reliability and validity. Cronbach’s alpha in earlier studies has ranged from .82 to .90 (Svanborg & Åsberg, 2001). The outcome measures used have been shown to have good psychometric properties when administered via the Internet (Hedman et al., 2010; Thorndike et al., 2009).

متن کامل مقاله

دریافت فوری ←

**ISI**Articles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات