

# The Relationship Between Self-Focus and Social Anxiety Disorder

Jiaxin Ren \*

James Cook University, Singapore

\* Corresponding Author Email: [cat9924@hhu.edu.cn](mailto:cat9924@hhu.edu.cn)

**Abstract.** An examination of the severe effects that social anxiety disorder (SAD) has on people is presented in this paper. Particular attention is paid to the condition's early start and modest heredity. The prevalence of seasonal affective disorder (SAD) is highlighted by the fact that it is the fourth most prevalent mental ailment, and it often occurs in conjunction with other diseases. An increasing level of self-focused attention (SFA) has been connected to an increase in social anxiety, which highlights the significant role that SFA plays in the development of social anxiety disorder (SAD). Symptom reduction treatments that are helpful include cognitive therapy and exposure therapy, both of which target SFA. These interventions are considered as useful techniques for reducing symptoms. When it comes to alleviating symptoms of seasonal affective disorder (SAD), in vivo exposure treatment has been shown to be more effective than virtual reality exposure therapy. The review highlights the need of doing further research in order to determine the most effective therapy options and emphasizes the complexity of the societal costs associated with the treatment of SAD. It is intended that the strategies described in the text for lowering the symptoms of social anxiety via treatments that target self-focused attention may serve as a source of inspiration for intervention programs that are designed to alleviate the symptoms of social anxiety.

**Keywords:** Social anxiety disorder; self-focus attention; intervention programs.

## 1. Introduction

A deep-seated fear of social settings characterizes social anxiety disorder (SAD), a frequent mental disease today. SAD sufferers often feel uncomfortable around others. Their anxiety goes beyond the fear that their actions or words will cause discomfort; they also fear the possibility of being ridiculed or making a negative impression on their peers. As a result, these individuals often choose to avoid social gatherings in order to minimise their discomfort. In Australia, 2007 statistics from the Australian Bureau of Statistics show that the disorder affects 4.7% of the population within a 12-month period and has a lifetime prevalence of 10.6%. The data also shows a higher incidence of SAD in women. SAD is the fourth most prevalent mental health illness, ranking behind conditions like depression, PTSD, and alcohol abuse, according to the 2007 ABS. In addition, SAD often co-occurs with other mental health conditions. These data underline the widespread, pervasive and persistent nature of SAD and highlight its importance as a mental health issue that requires continued attention and research.

Typically beginning in late childhood or early adolescence, SAD is thought to be a somewhat hereditary disorder [1]. The symptoms of SAD can have a significant negative impact on a person's future life. They may miss more opportunities to study or work due to their fear of social occasions, and generate more negative emotions and feelings due to some unavoidable social interactions, thus affecting their physical and mental health. Less than half of SAD sufferers seek out therapy assistance, despite the significant suffering and dysfunction that the disorder is known to cause (affecting employment, social life, and marital life), and they may not do so until 15-20 years after the onset of symptoms [2]. The status quo also suggests that people do not know enough about SAD, often mistakenly perceiving sufferers as introverted, shy or 'socially phobic' types, and failing to recognise the damage caused by SAD as a form of mental illness, the distress experienced by sufferers, or the self-focus anxiety (SFA) that is a key factor in SAD. According to research, after attending a social event, individuals with social anxiety disorder often exhibit traits that extend beyond self-focused attention [3]. This research examines how self-focused attention affects social anxiety disorder

symptoms and offers therapeutic techniques that try to affect self-focused attention to lessen social anxiety disorder symptoms.

Self-focused attention (SFA) is conscious knowledge of self-referential, internally created information [4]. This encompasses physical health, cognitive activities like ideas and memories, and more abstract mental states like beliefs, views, and emotional reactions [5,6]. Self-focused attention is a major diagnostic criterion for social anxiety disorder (SAD). Excessive self-focus may damage self-esteem and increase social anxiety. Self-awareness may make self-observation uncomfortable, leading to greater critical evaluation of one's behaviors and emotions. Overemphasizing the self may cause inaccurate self-evaluations, anxiety, and physiological arousal. Thus, understanding self-focused attention is essential to developing effective social anxiety disorder treatments. The interaction between SAD and SFA is relevant and the focus of this study. They want to understand their relationship better by digging deeper. This study is expected to emphasize the relevance of this research and the necessity for future research into the processes between SAD and SFA, furthering social anxiety disorder treatment.

## **2. The relationship of SAD and SFA**

Within the scope of the magnetic resonance study, the association between self-focused attention and social anxiety disorder is investigated. In a previous study, people who suffered from seasonal affective disorder (SAD) were instructed to see photographs that were either neutral or unpleasant in a passive manner while their brain activity was recorded using functional magnetic resonance imaging (fMRI). Twenty-one individuals diagnosed with SAD and 23 healthy controls participated in the research. All patients with SAD were recruited via the internet or printed advertisements, while the healthy control group was recruited via public notices and university mailings. Patients had to fit DSM-IV criteria in order to be included in the two groups, which were carefully matched for age, sex, weight, height, and hand feeling (Edinburgh Hand Feeling Survey). Current SAD excludes mental diseases other than affective and anxiety disorders. The German version of the self-report Liebowitz Social Anxiety Scale was used to gauge the severity of the symptoms (Kronbach alpha=0.085). In the experiment, when watching neutral photos passively, patients with SAD had more activity than the control group in the bilateral lobular region and the posterior median acanthodermal area. Based on the findings, people with SAD exhibited brain overreaction when they watched aberrant pictures passively. Such a response can be explained by an increase in bodily self-awareness and perspective taking, i.e., an increase in self-focus and self-attention. During the independent rise and fall of negative emotional intensity, the group differences vanished. This shows that people with SAD may effectively regulate their emotions by using the self-focused reappraisal technique. However, this research did not test with positive images, so the results here may be limited to negative emotion regulation. Nevertheless, the emotions of SAD symptoms are generally negative, so this research has a high reference value for researchers to understand the alleviating effect of self-focus on SAD symptoms [7].

In previous studies, social anxiety was assessed in n=63 female volunteers using the Liebowitz Social Anxiety Scale (LSAS) questionnaire [8, 9] and functional magnetic resonance imaging. Thirty-three of these women were selected, with volunteers scoring  $\geq 60$  on the LSAS categorised into a high social anxiety (HSA) group and those scoring  $\leq 20$  on the LSAS categorised into a low social anxiety (LSA) group. The brain correlates of self-focused attention were then further estimated in sixteen individuals from each group (LSA and HSA). Every participant was a student who was hired from Jena, Germany's Friedrich Schiller University. The mPFC, right TPJ, and TP were more active in the HSA group than in the LSA group during both inner and outward attention situations, according to the research, which compared the two groups. The findings provide concrete proof that people with high levels of social anxiety are not always required to digest unfavorable social circumstances or comments. In social circumstances, aberrant elevations in mPFC activity may be triggered by just concentrating on one's own thoughts and behaviors. Furthermore, we discovered a significant link between the right anterior insula cluster's activity and the self-focused attention of HSA participants,

indicating the region's function in self-focused attention and maybe its connection to improved interoception [10,11]. During the experiment, differences in the activity of the PCC, TPJ, mPFC, and right insula were also noted. By using autobiographical memory, the PCC seems to assess and determine if observed stimuli are self-relevant [12]. The association between self-focused attentional traits and PCC activation that has been seen might suggest that autobiographical material is overused by HSA participants, which increases self-focused attention. Because of this, people who suffer from social anxiety often remember more negative information about themselves [13] and more negative feedback from previous social interactions [14]. The TPJ and TP are also largely engaged in Theory of Mind. Although IQ was not controlled for in this study, the influence of this factor is likely to be minimised as all participants were university students from the same institution. The results suggest hyperactivation of the mPFC during inward-directed attention. HSA individuals' mPFC activity was favorably linked with traits related to self-focused attentional features in comparison to LSA participants, demonstrating that self-focus influences mPFC activity and that the mPFC of HSA patients is positively associated with self-focused attention.

### **3. Interventions to Reduce Social Anxiety Disorder**

#### **3.1. Cognitive Therapy**

Social anxiety disorder (SAD) has long been successfully treated with cognitive therapy. Franziska Schreiber et al. conducted groundbreaking research [15] to determine the effectiveness of an intervention centered on Self-focused Attention (SFA) and the Safe Behaviour Experiment for managing symptoms of Social Anxiety Disorder (SAD). This research was conducted as a component of a randomized controlled trial that included sixteen individual sessions of SAD-specific cognitive treatment. The research evaluated the effects of SFA and the safe behavior experiment on the development of social anxiety levels in 32 individuals with SAD diagnoses using supplemental time series analysis. The analysis was carried out one, two, three, and four weeks after the intervention. Over the course of the one-month treatment session, the findings demonstrated that including safe behavior practices and self-focused attention into cognitive therapy significantly reduced social anxiety symptoms. Schreiber's research not only supports the cognitive theory of SAD, which posits that self-focus intervention is a viable therapeutic approach for alleviating SAD symptoms, but also highlights the importance of interventions that are specifically designed to address self-focus attention and safe behaviours. Such targeted interventions are considered essential in the cognitive therapy armoury for effective treatment of SAD.

#### **3.2. Exposure therapy**

One useful therapeutic strategy for treating social anxiety disorder (SAD) is exposure therapy. In one research [16], 60 participants between the ages of 18 and 65 had a mean age of 36.9 years and 63.3% of them were female, were evaluated, all of whom met the primary diagnostic criteria for SAD. The aim was to determine whether changes in self-focus, social situation self-efficacy and perceived social costs were connected with treatment success during the first six sessions of exposure therapy. This study examined the cognitive effects of exposure alone, focusing only on behavioural components and deliberately omitting cognitive elements from the treatment protocol. The therapies were categorised as Virtual Reality Exposure Therapy (VRET) and In Vivo Exposure Therapy (iVET), rather than Intravenous Exposure Therapy as previously stated, to avoid confusion with medical procedures. Both modalities consisted of 10 fortnightly sessions of 90 minutes each, with 60 minutes of exposure. The sessions were delivered by trained therapists, including clinical psychologists and final year Masters students, who were familiar with both treatment modalities. Study results showed that both VRET and iVET significantly reduced SAD symptoms, with iVET showing greater efficacy than VRET. In particular, throughout therapy, improvements in social self-efficacy and self-focus were strongly correlated with successful treatment results. These alterations did not, however, substantially indicate whether symptom relief would outweigh the societal expenses of treatment.

While the review focuses on the dynamics of social costs, it also encourages further consideration of the value of the self-focused exposure therapy intervention in reducing SAD symptoms. However, the review does not address the intricacies of changes in social costs or their implications for future therapeutic approaches. However, regardless of social cost considerations, the study clearly shows a significant improvement in SAD symptomatology following both forms of exposure therapy [16].

#### 4. Conclusion

To sum up, social anxiety disorder (SAD) is a prevalent and long-lasting mental health issue that severely hinders social and interpersonal functioning. Studies emphasize how important self-focused attention is to the development and aggravation of symptoms associated with SAD. Cognitive therapy (CT) and exposure therapy are two examples of interventions that have shown potential in lowering social anxiety. These therapies primarily target self-focused attention and safe behaviors in children and adolescents. Specifically, the analysis underlines the long-term advantages of CT in terms of modifying one's self-focus, which has the ability to avoid subsequently occurring relapses. In addition, exposure treatment, which included both virtual reality and in vivo methods, exhibited an instantaneous decrease in symptoms, with the in vivo method producing somewhat better outcomes. Based on these data, it seems that a multidimensional approach that incorporates both cognitive and behavioral strategies may be the best thorough treatment option for patients who are suffering from seasonal affective disorder (SAD). This study also underscores the need for more research into the intricacies of the social costs associated with seasonal affective disorder (SAD), as well as the development of remedies that are more focused in order to successfully address these specific aspects.

#### References

- [1] Norton, A. R., & Abbott, M. J. (2016). Self-focused cognition in social anxiety: a review of the theoretical and empirical literature. *Behaviour Change*, 33(01), 44-64.
- [2] Wang P S, Lane M, Olfson M, et al. Twelve-month use of mental health services in the United States: results from the National Comorbidity Survey Replication [J]. *Archives of general psychiatry*, 2005, 62(6): 629-640.
- [3] Wells A, Clark D M, Salkovskis P, et al. social phobia: The role of in-situation safety behaviors in maintaining anxiety and negative beliefs [J]. *Behavior Therapy*, 1995, 26(1): 153-161.
- [4] Ingram, & Rick, E. (1990). Self-focused attention in clinical disorders: review and a conceptual model. *Psychological Bulletin*, 107(2), 156-76.
- [5] Gels, S. M., & Lamers, C. T. J. (2002). The causal role of self-awareness in blushing-anxious, socially-anxious and social phobics individuals. *Behaviour Research & Therapy*, 40(12), 1367-1384.
- [6] Gels, S. M., & Mansell, W. (2004). Attention processes in the maintenance and treatment of social phobia: hypervigilance, avoidance and self-focused attention. *Clin Psychol Rev*, 24(7), 827-856.
- [7] Michael Gaebler, Judith K. Daniels, Jan-Peter Lamke, Thomas Fydrich and Henrik Walter *J Psychiatry Neurosci* July 01, 2014 39 (4) 249-258.
- [8] Stephanie, B., Miltner, W. H. R., & Thomas, S. (2015). Neural correlates of self-focused attention in social anxiety. *Soc Cogn Affect Neurosci*(6), 6.
- [9] Stangier U, Heidenreich T. *Scalarum CIP. Liebowitz social anxiety scale, Internationale Skalen für Psychiatrie (Internatioal Scales for Psychiatry)*, 2005WeinheimBeltz (pg. 299-306)
- [10] Critchley H, Daly E, Phillips M, et al. Explicit and implicit neural mechanisms for processing of social information from facial expressions: a functional magnetic resonance imaging study[J]. *Human brain mapping*, 2000, 9(2): 93-105.
- [11] Critchley, & H., D. (2004). The human cortex responds to an interoceptive challenge. *Proceedings of the National Academy of Sciences*, 101(17), 6333-6334.
- [12] Meer, L. V. D., Costafreda, S., André Aleman, & David, A. S. (2010). Self-reflection and the brain: a theoretical review and meta-analysis of neuroimaging studies with implications for schizophrenia. *Neuroscience & Biobehavioral Reviews*, 34(6), 935-946.
- [13] Warren, Mansell, and, David, M, & Clark. (1999). How do i appear to others? social anxiety and processing of the observable self. *Behaviour Research & Therapy*.
- [14] Moriguchi Y, Decety J, Ohnishi T, et al. Empathy and judging other's pain: an fMRI study of alexithymia[J]. *Cerebral Cortex*, 2007, 17(9): 2223-2234.

- [15] Schreiber, F., Heimlich, C., Schweitzer, C., & Stangier, U. (2015). Cognitive therapy for social anxiety disorder: the impact of the "self-focused attention and safety behaviours experiment" on the course of treatment. *Behavioural and Cognitive Psychotherapy*, 43(02), 158-166.
- [16] Kampmann I L, Emmelkamp P M G, Morina N. Cognitive predictors of treatment outcome for exposure therapy: do changes in self-efficacy, self-focused attention, and estimated social costs predict symptom improvement in social anxiety disorder? [J]. *BMC psychiatry*, 2019, 19: 1-8.