

# Social Phobia

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Many children, and adults, consider themselves 'shy'. Social phobia is not simply shyness. Rather, the term refers to a chronic social anxiety characterized by social withdrawal, avoidance of social contacts, inhibition, and anticipatory fear of negative evaluation by others. Often critics remark that the diagnosis of 'social phobia' is little more than a 'medicalization' of common shyness.

It does appear, however, that social phobia is qualitatively different from simply more intense common shyness. A NIH study of more than 10,000 children between 13-18 years of age (reported in *Pediatrics*, October 17, 2011) found that about 50% rated themselves as 'shy'; however, the number of those who rated themselves as being socially phobic was about 10%. The rates increase with age, as one might expect, so that before the age of 13 or so, the rate is about 6% which increases to about 10% by 18 years of age. While shyness and social phobia are roughly equivalent between males and females in early childhood, in adulthood about 70% of the socially phobic population are women.

Like many psychological conditions that start at a young age, social phobia can lead to some severe disturbances later in life. Conditions commonly associated (co-morbid) with social phobia include generalized anxiety disorder, major depression, oppositional/defiant behavior and addiction. And like many disorders that start early in life, a major casualty of these uncorrected conditions is severe erosion of one's core emotional belief about self. Feelings of inadequacy, often to an intensity of self-loathing, are not uncommon.

We should keep in mind that the relationship among these disorders is bidirectional. That is, although social anxiety may lead to social withdrawal, depression or learning problems, it is also true that the situation can be the other way around. Namely, a child with a learning disorder, for example, may develop social anxiety to the level of phobia because of fear of being humiliated. They feel stupid and are trepidatious about being exposed.

I stress the concern of eroded self-regard because it is a pervasive problem with many clients whom we treat whose conditions started in early childhood. We see it with children with learning and attention disorders. They come to believe that they are stupid, unworthy and worse, unlovable because of their disappointing accomplishments. We also see it with teens who become tragically addicted to drugs or the Internet resulting in a life trajectory, that if not corrected, looks terribly grim. And we see it with our adult clients who are severely depressed and/or anxious and want to just hide by quitting or withdrawing into addiction or taking their own life.

One of the remarkable advantages of neurometrics, the science of identifying clinical problems by revealing neurological anomalies in brain functioning, is that we can bypass the usual top-down diagnostic procedure. Rather than try to fit a client/patient into some arbitrary nosology, we look at brainwave activity to find atypical patterns that have been found to be associated with specific client reports of conditions such as poor sleep, depressed mood, stress intolerance, social anxiety, and the like.

Neurologically, children brought in for treatment of “social phobia” tend to have two remarkable brainwave features. The first, shown in Figures 1a and 1b, is elevated Alpha amplitude in the right frontal area of the cortex. Alpha brainwaves are between 8 and 12 cycles per second (Hz) and are associated with different mental states depending on where in the brain they are prominent. In the right frontal region of the brain, marked elevations in Alpha strength have been found to be associated with problematic social behavior. The form of the anomalous social behavior varies depending on many factors including age and sex of the client, co-morbid conditions, family context, culture, and the like. Clients with marked excess of Alpha amplitude may have difficulties with aggressiveness, oppositional/defiant behavior, deficient social skills and fear of social encounters. In adults we often see this elevated Alpha emerge when they experience a major conflict/breakup in an intimate relationship.

Figure 1a: Alpha brainwaves

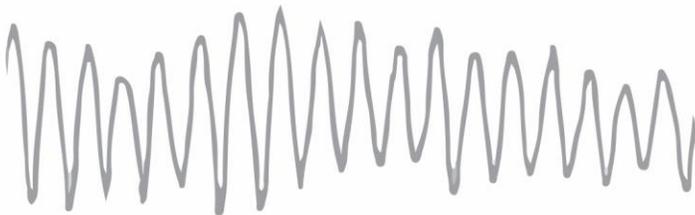
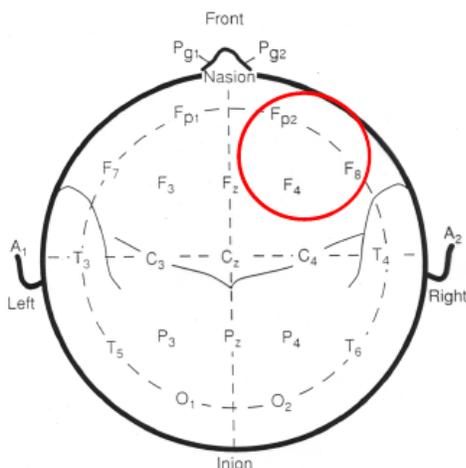


Figure 1b: Location of elevated Alpha brainwave amplitude often found with clients with social anxiety



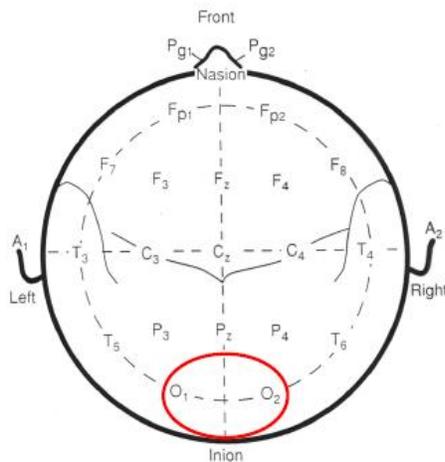
The second anomalous feature usually found with clients who report social anxiety is elevated fast brainwave amplitude in the occipital region of the brain. The fast activity Beta brainwaves are between 16 and 25 Hz. Individuals with elevated Beta amplitude in the back of the brain often report problems with stress tolerance and anxiety. This condition of elevated Beta amplitude in the occipital region is also often related to client reports of poor sleep, racing thoughts and self-medicating behavior including dependence on alcohol, drugs and prescription medications.

The Beta wave form is shown in Figure 2a and the location of the Beta excess often found in clients with social anxiety is shown in Figure 2b.

Figure 2a: Beta brainwaves



Figure 2b: Location of elevated Beta brainwave amplitude often found with clients with social anxiety



## Treatment Options

The most critical feature of any treatment program is to be certain that one is treating the correct problem. This sounds obvious; however, many clients come to our clinic after having been treated by several professionals for what turns out to be the wrong problem. This is one of the major inadequacies of the top-down diagnostic procedure. These top-down procedures have lists of symptoms and time frames, and clients receive the diagnosis only if they admit to certain symptoms for a minimum time period. But the core of the matter is the question 'What is the value of the diagnosis?' There can be many reasons, both social and neurological, why a client is anxious in social situations. The diagnosis does not help much for determining treatment strategies.

A related problem is also found with top-down procedures. In short, any client that is unhappy or angsted about their condition is given symptomatic treatment consisting of antidepressant and/or antianxiety medications. It is not uncommon, for example, to find executives and professional musicians who take beta-blockers (a medication used for conditions such as cardiac arrhythmias and hypertension) to control performance anxiety. There is certainly a role for medications in the treatment of severe

states of social anxiety; however, such medications should be transitional and adjunctive to treatments focused on correcting the cause of the anxiety.

Neurotherapy is the appropriate treatment to correct the neurological condition(s) associated with social anxiety. In the classic pattern described above, brainwave biofeedback (neurofeedback) would be the treatment of choice. Neurofeedback is uncomplicated. The client's brainwave activity is measured over the relevant area of the brain. When the brain is doing what we want, such as reducing the excessive Alpha amplitude in the right frontal region, the client will hear a tone and/or see something move on the computer monitor. By using the feedback as a guide, clients learn to self-regulate brainwave activity.

Complementary behavioral therapies are also used for the treatment of social phobia and anxiety. One such procedure, exposure, is based on encouraging individuals to confront the source of their phobias. So for snake phobia one would be exposed to snakes and for social phobia one would be exposed to socially unnerving situations.

A recent review (BMC Psychiatry. 2011;11, 200) indicated that there appears to be no difference between the effectiveness of exposure therapy and cognitive therapy for post-traumatic stress disorder or obsessive compulsive disorder. However, there appears to be strong evidence of superior efficacy of cognitive therapy in social phobia. The basic focus of cognitive therapies for social anxieties is to change the meaning of the stress and to change perceptions of oneself. Sports coaches have used these procedures for decades. An anxious young figure skater, for example, can view her approaching performance as terrifying and one that she wants to end quickly; or she can view the same physiological arousal as her being thrilled with the joy of expressing her skill. Issues of self-regard, as discussed earlier, are also critical and require adjunctive therapies as well.

In summary, neurotherapy, both in terms of the assessment of the underlying neurological conditions and the specificity of the treatment of these identified inefficiencies in brain functioning, is an efficient method for treating the social anxiety and phobia. When coupled with the cognitive therapies for correcting perception of both oneself and the emotional significance of the normal arousal one experiences in social settings, these often debilitating conditions can be remarkably and effectively improved.