

Correlation between social anxiety and negative affect

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ABSTRACT

Social Anxiety Disorder is the third largest mental health care problem in the world today. Social anxiety (SA) has been studied widely in terms of epidemiology, aetiology, pathology, comorbidity, etc. There have been few recent studies that have tried to assess the relationship between social anxiety and negative affect (NA) including diminished positive affect. However, very few studies have been conducted to specifically study the correlation SA and NA share by examining specific negative affective states. The aim of this research is to study the relationship between SA and NA in detail. The sample size is 101 (male = 26, Female = 75). Ages ranges were 18 to 25 yrs. (young adults). Purposive sampling through online platform was used. A google form was created consisting informed consent, demographic details, Leibowitz Social Anxiety Scale – SR (LSAS-SR) and Positive Affect Negative Affect Schedule – SF (PANAS-SF), which was sent to the participants. Mean scores of SA and NA were 59 and 26.9 respectively. Pearson’s correlation between SA and NA was .467 ($p < 0.01$). A moderately strong correlation of SA was found with affective states of nervousness (.508, $p < 0.01$) and afraid (.419, $p < 0.01$) followed by guilty (.349, $p < 0.01$), distressed (.325, $p < 0.01$) and ashamed (.303, $p < 0.01$). The weakest correlation of SA was found with hostility (.222, $p < 0.05$). Further research is needed to examine the relationship of SA and other negative affect such as anger, disgust, sadness, loneliness, etc. to better understand affective states present with SA and formulate treatment models accordingly.

Keywords: Social Anxiety, Negative Affect, Nervous, Afraid, Hostile

Humans are known as social animals. We are intrinsically, evolutionarily designed to be social. We as humans have innately a strong need to be valued as well as like, and approved of by others. As a result, we create social structures and set of hierarchies that would decide the individual’s worth or value. Because of such importance of social relationships, humans innately fear negative evaluation by their friends or peer group. The dysfunctional expression of this evolutionarily functional need is social anxiety disorder (SAD) (Hofmann, 2010). The disorder is characterized by a recurrent and intense anxious response to social or performance situations in which evaluation from other people may occur (American Psychiatric Association, 2013). A person who has social anxiety disorder has ample anxiety and discomfort related to being embarrassed, humiliated, rejected, or looked down upon on in social interactions. It’s highly associated with negative emotional experiences (Hofmann and Hinton, 2014). People with this disorder will try to avoid the

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situation or endure it with great anxiety (American Psychiatric Association, [APA] 2017). Social anxiety disorder is one of the most common anxiety disorders; with an early age of onset (Stein and Stein, 2008).

It is a heterogeneous and distressing illness (Elizabeth, King, and Ollendick, 2004) and usually causes significant impairment in social, occupational, or other areas of functioning (The British Psychology Society, 2013). The severity of impairment increases when a comorbid condition is present with SAD (Lochner, Mogotsi, et al. 2003). There is a greater duration of social anxiety present with the presence of a comorbid mood disorder (Erwin, Hamberg et al. 2000) and this comorbidity might be associated with increased severity and decreased functionality in patients with SAD (Koyuncua, Ertekin, et al. 2014). Comorbidity among SAD, GAD, and depressive disorders is substantial, and SAD and GAD precede the onset of major depression in a majority of cases and appear to be risk factors for developing major depression (Kenneth, Schneier and Franklin, 2004).

In general, individuals will experience varying degrees of exposure to the different etiological factors, and so individuals will have different threat values assigned to social evaluative stimuli but evidence suggests 5 significant etiological factors; inherited tendencies, parent behaviors, peer experiences, life events, and culture (Wong and Rapee, 2016).

Studies have suggested that significantly high negative affect (NA) and low positive affect (PA) are core components of social anxiety (Gross & Jazaieri, 2014). The internal feeling state which is called affect, which happens if a person has failed to fulfil a goal or avoiding a threat or when the person is not satisfied with the present state of things. The tendency to experience such states is known as negative affectivity (American Psychological Association). More specifically, it is a construct that is defined by the common variance between anxiety, sadness, fear, anger, guilt and shame, irritability, and other unpleasant emotions (Stringer, 2013). Neuroticism and negative affect instability are related, it represents the average negative affect across time. Negative affect instability is related to low Agreeableness and specific externalizing facets of Neuroticism, such as Angry Hostility and Impulsiveness (Miller, Vachon and Lynam, 2009). Watson and Clark (1984) have signified that the trait of personality called neuroticism is part of a broader term consisting of many traits including emotionality, trait anxiety, and ego strength; which is labelled as 'negative affectivity.' Scales measuring traits in this cluster consistently show women scoring higher (Hyde, 2001).

Neuroticism has strong correlation and a predictor of many types of mental and physical disorders, comorbidity among them, and the frequency of mental as well as general health services usage (Lahey, 2009). It is highly linked with the development of psychopathology of common mental disorders (CMD) like anxiety including SAD, mood, and substance use disorders (Clark, Watson, & Mineka, 1994; Watson, 2005). Negative affectivity appears to be a nonspecific risk factor for panic attacks as well as major depression (Hayward, Killen, et al. 2000). Negative affect also has a significant role in other occurrences that correlate strongly with distress which are psychological in nature, e.g. persistent low subjective well-being, and physical health problems (Heller, Watson, & Ilies, 2004). The vulnerability model is one of 5 theories that Ormel, Jeronimus et al. in their paper titled "Neuroticism and Common Mental Disorders: Meaning and Utility of a Complex Relationship", proposed to try and explain the relationship between neuroticism and common mental disorders. It says that neuroticism is what sets the base for the development of or ground that leads to

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common mental disorders i.e. a presence of high levels of neuroticism leads to the development of common mental disorders directly or leads to an increase in the impact of causal risk factors including stressful life events (e.g., diathesis-stress scenario). Some of the examples of such processes are an attention bias that's negative, interpretation, and recalling of information, increase in reactivity, and ineffective methods of coping. Another theory proposed by them is called the common cause model. According to this model, neuroticism can be a predictive factor for CMDs because the two constructs share genetic and environmental determinants producing a non-causal statistical association. These 2 theories, upon being statistically analyzed could account for each part of the prospective neuroticism-CMD association (Ormel, Jeronimus, et al. 2013). It is reiterated through overwhelming literature that most psychological disorders are associated with elevated neuroticism levels / negative affectivity. Negative affectivity (or neuroticism) is hypothesized to represent a core general risk factor for anxiety symptoms and disorders and has been shown to predict their onset (e.g., Watson, Gamez, & Simms, 2005; Clark et al., 1994; Hayward et al., 2000). People who are socially anxious pays a lot of attention, spends energy, and time on persistent fears about impression management, hypervigilance to social threat cues, social avoidance/withdrawal behaviors, and post-event rumination (Rapee & Heimberg, 1997; Clark & Wells, 1995). People who have social anxiety report higher levels of trait NA (Watson, Clark, & Carey, 1988) and exhibit greater intensity and instability of negative affect over the course of a given day (Farmer & Kashdan, 2014). Social anxiety is significantly and negatively related to all domains of positive psychological functioning (Kashdan, 2002). A study was done by Newby, Pitura, et al. to study neuroticism and perfectionism as predictors of social anxiety found that self-consciousness, vulnerability, and impulsiveness facets of neuroticism uniquely predicted interaction anxiety and the self-consciousness, vulnerability, and anxiety facets uniquely predicted evaluation anxiety (Newby, Pitura et al. 2017). Individuals with social anxiety disorder also have markedly different personality traits, in particular, high neuroticism (negative affectivity) and introversion, in other words, a tendency to be emotionally unstable and inward-turning (Uppsala University, 2020).

The present literature shows that there is a negative relationship between positive affect and social anxiety. It also shows a high presence of negative affectivity in people with social anxiety but very few studies have been done specifically to study the relationship between these two variables. The literature does show a prevalence of high negative affectivity and even models that can explain that but only a few have been done to explore the specific negative affective states that people with social anxiety might be going through. There is extensive study on association of shame with social anxiety disorder but the other affects have not been studied. The present study strives to assess the relation negative affect (distressed, upset, guilty, scared, hostile, irritable, ashamed, nervous, jittery, and afraid) shares with social anxiety in young adults aged 18 to 25 yrs. in a general population and to dive into the relationship each negative affect that is measured shares with social anxiety. The hypothesis that is formulated through the literature review is that people with higher levels of social anxiety will experience higher levels of negative affectivity compared to people with less social anxiety. Implications of this study can be substantial for the purposes of formulating treatment models where these negative affective states are addressed as a priority since it has a profound effect on the individual with social anxiety. This kind of understanding would highlight more facets of social anxiety and pave a way for further researches to study affective states associated with social anxiety.

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Sample

Initially, 104 participants were approached however, only 101 gave their informed consent, all of them belonging between the age ranges of 18 to 25 yrs. (young adults).

Demographics	Frequency	Percent (%)
Sex		
Male	26	25.7
Female	75	75.3
Age (yrs.)		
18	1	1
19	5	5
20	7	6.9
21	9	8.9
22	31	30.7
23	30	29.7
24	8	7.9
25	10	9.9

Instruments

Two measures were used for this study;

Liebowitz Social Anxiety Scale (LSAS – SR) - It's a 24 item self-rated scale in which 13 questions relate to performance anxiety and 11 concern social situations. The 24 items are first rated on a Likert Scale from 0 to 3 on fear felt during the situations, and then the same items are rated regarding avoidance of the situation.

Positive Affect Negative Affect Schedule - It's a self-report questionnaire of affect consisting of two 10 item scales to measure both positive and negative affect. It's a Likert scale where the participant has to answer if they have been feeling the mentioned affect with 1 meaning very slightly or not at all and 5 meaning extremely.

Procedure

First set of participants fulfilling the inclusion criteria were sent a google form link which contained the LSAS – SR and PANAS- SF through email and WhatsApp. The message included the details of the purpose of the questionnaire with a request to forward it to others they know fulfilling the inclusion criteria. The first part of the form contained informed consent and the participants who gave their consent to volunteer for the study had to answer the consent form with a yes. Only after they gave a positive response to the consent form, they were directed to the next section. The ones who didn't give their consent weren't directed to the other following sections. The next section asked for basic demographic details which were age and gender. After completing the demographic details section, they were directed to the next section containing LSAS-SR questionnaire. On completing LSAS-SR, they were directed to the PANAS –SF questionnaire which was the last part of the google form. All the questions throughout the form were starred as mandatory. There was no time limit but it roughly on an average took participants around 10-15 mins to complete the survey. Once they (the participants) submitted their responses, they were not allowed to go back and edit them.

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RESULTS

Table 1 Descriptive Statistics

	Min. Score	Max. Score	Mean	Std. Deviation
Social Anxiety	4	131	59	28.4
Negative Affect	10	48	26.9	8.9

Pearson's Correlation was then done to test the hypothesis i.e. to see if there is a correlation between Social anxiety and Negative affect and to see the nature of the same. The analysis indicated that both the variables have a correlation of .467 (sig. = .000) which is interpreted as moderately strong positive correlation meaning that both variables move in tandem—that is, in the same direction.

Table 2 Pearson's r between Social Anxiety and Negative Affect.

Variables	Correlation Coefficient	Sig.
Social Anxiety	.467**	.000
Negative Affect		

Note: ** $p < .01$, two-tailed.

To examine closely the relationship between social anxiety and the scored negative affect, Pearson's correlation was calculated with all the 10 negative affect measured in the scale. The results showed significant correlation between nervous and social anxiety which means there's a strong correlation of high level of nervousness associated with social anxiety. It was followed by that of being afraid and the lowest significant correlation found was with the feeling of hostility. Table 4 shows the assessed data.

Table 4 Pearson's r between Social Anxiety and each measured negative affect.

Negative Affect	Anxiety Pearson's r	Sig. (2 tailed)
Distressed	.325	.001
Upset	.284	.004
Guilty	.349	.000
Scared	.306	.002
Hostile	.222	.025
Irritable	.284	.004
Ashamed	.303	.002
Nervous	.508	.000
Jittery	.225	.024
Afraid	.419	.000

The results show that negative affect is moderately positively correlated with social anxiety which means that individuals who experience higher levels of social anxiety are likely to experience higher levels of negative affective state. This finding is in line with the findings from other studies (Moscovitch, Karen, et al. 2013; Morrison, Gross, et al. 2016; Cohen, Dryman, et al. 2017; Rodebaugh, Levinson, et al. 2017; Gross & Jazaieri, 2014; Ormel, Jeronimus, et al. 2013; Clark et al., 1994; Hayward et al., 2000; Watson, Gamez, & Simms, 2005; Watson, Clark, & Carey, 1988; Kashdan, 2002; Newby, Pitura, et al. 2017; Muris, Roelof, et al. 2005 ...). Further analysis shows that social anxiety is moderately correlated (positively) with affective states of Nervous, afraid, guilty, distressed, scared and ashamed which are also in line with the previous studies (Matos, Gouveia and Gilbert 2013; Hedman,

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Strom, Stunkel, Mortberg 2013; Carleton, Collimore and Asmundson 2010; Rodebaugh, Levinson, et al. 2017; Clark & Wells, 1995; Rapee & Heimberg, 1997; Leigh and Clark, 2018...). Another interesting finding is that social anxiety was found to have the weakest correlation with hostility which actually isn't in line with few studies previously done to study the relationship between social anxiety and hostility where they found a strong positive correlation between both (DeWall, Buckner, et al. 2010; Asberg, 2012). One of the possible reason for it could be because most of these studies have been done on clinical population, i.e. people who were already diagnosed with social anxiety disorder whereas this study was done in a general population assessing on the levels of social anxiety. Further research in the direction of exploring other affective states related to social anxiety would pave the way to formulate treatment models that would incorporate these findings to help people with social anxiety more effectively and also could boast the literature present for social anxiety helping us understand social anxiety better.

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Conflict of Interest

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