Original Article

Role of Cost and Probability of Feared Negative Outcomes in Social Anxiety: A Correlational Study of Jaipur, Rajasthan

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ABSTRACT

Background: Social anxiety disorder involves the fear of social situations, including situations that involve scrutiny or contact with strangers. Anxiety is maintained in part by estimates of the probability and cost of feared negative outcomes. Social phobia may be unique among the anxiety disorders in that it is characterized by overestimates of the cost of events that are objectively non-catastrophic. *Objective:* The current study was conducted to study the role of cost and probability of feared negative outcomes in. *Sample:* 50 students with a mean age of 21 years constituted the sample for the study. *Design:* Correlation design was used. *Tools:* Data was collected using Outcome Probability and Cost Questionnaire (Uren, Szabó, & Lovibond, 2004) and Liebowitz Social Anxiety Scale (Liebowitz, 1987). *Results:* Results pointed to a positive correlation between cost and probability of feared negative outcomes and social anxiety. *Conclusion:* The present study was undertaken in order to investigate the relationship between cost and probability of feared negative outcomes with social anxiety, it can be concluded that there is a significant positive relationship between cost, probability of feared negative outcomes, avoidance of social situations and social anxiety.

Keywords: Social Anxiety, cost, probability, feared negative outcomes

INTRODUCTION

Social Anxiety Disorder (SAD) involves the fear of social situations, including situations that involve scrutiny or contact with strangers", Kaplan & Sadock (1988). The term social anxiety reflects the distinct differentiation of social anxiety disorder from specific phobia, which is the intense and persistent fear of an object or situation. Person may have specific fears about performing specific activities such as speaking in front of others, or may experience a nonspecific fear of "embarrassing oneself". Anxiety is maintained in part by estimates of the probability and cost of feared negative outcomes. Social phobia may be unique among the anxiety disorders in that it is characterized by overestimates of the cost of events that are objectively non-catastrophic (e.g., committing social mishaps). Although research has shown that the onset of SAD is typically during adolescence, very little research has been conducted investigating the etiology and treatment of SAD in adolescents. It is common for children and adolescents to report many types of fears and worries. However, these fears are usually transitory and are not impairing for most youths. SAD in adolescents is related to increased co- morbidity with depressive disorders, somato form disorders, and substance use disorders, adolescents with SAD have few friends, poor school performance, difficulties with intimate relationships, and increased alcohol use.

These findings indicate that SAD during childhood and adolescence is associated with significant problems in functioning. Along with the depressive symptoms in adolescents with SAD it was found that the clinical syndrome of SAD in children and adolescents is very similar to the presentation in adults. In addition, both populations describe similar types of feared social situations with public speaking and going to parties representing the most commonly feared situations.

In evaluating the significance of probability and cost biases in social phobia, it is necessary to first characterize the nature and extent of these biases. Substantial

research has demonstrated that individuals with social phobia tend to overestimate the probability of negative social events.

Smári, Bjarnadóttir, and Bragadóttir (1998) assessed probability bias and found a significant positive correlation between a social anxiety self-report measure and probability overestimates.

Foa, Franklin, Perry, and Herbert (1996)indicates that individuals with social phobia demonstrate a probability bias in response to positive, mildly negative, and severely negative social outcomes. Research supports the view that social phobia is associated with a pervasive bias regarding the probability of social events.

Theorists have argued that inflated probability estimates of the likelihood of negative socialevents are unlikely to cause anxiety unless the negative social event is considered aversive or to have negative consequence. That is, if an event is perceived as likely but not harmful, it will not be appraised as threatening or anxiety provoking. Therefore, inflated cost estimates for negative social events havebeen hypothesized to be the driving force behind social phobia fears (Foa&Kozak, 1986).

Smári et al. (1998) asked non-clinical participants to rate the severity of five negative social events and found that cost estimates were significantly correlated with social anxiety symptoms. Uren, Szabó, and Lovibond (2004) replicated these findings in a clinical sample and found that, compared tonon-anxious controls, the clinically socially anxious rated the negative social outcomes as more distressing, which the authors interpret as evidence of overestimates in the appraisal of the cost of the outcomes.

Two other studies found evidence of cost bias in clinical participants when compared to non-anxiouscontrols. One found overestimates in the cost of mildly negative social events (Foa et al, 1996), and another found overestimates in both mildly and profoundly negative social events (McManus et al.,2000).

Three studies (Stopa & Clark; 2000; Gilboa-Schechtman, Franklin, & Foa, 2000; Wilson & Rapee, 2005) have used open-ended assessment in an effort to clarify why individuals with social phobia perceive negative social events as more costly. Stopa and Clark (2000) found that individuals with social phobia were more likely to generate negative and catastrophic explanations for events than controls.

Gilboa-Schechtman, Franklin, and Foa (2000) found for positive events, which is consistent with the notion that positive events can also be interpreted as threatening by people with social phobia because they increase standards for future performances (Wallace & Alden, 1995; Heimberg et al., 2010).Lastly, Wilson and Rapee (2005) asked people diagnosed with social phobia and non-socially anxious controls to imagine themselves in a negative social situation. Results showed that social anxiety was associated with the tendency to believe that negative social events would result in negative evaluation by other people, indicate negative personal characteristics, and yield adverse consequences in the long-term future.

Theoretical models of social phobia (e.g., Clark & Wells, 1995; Rapee & Heimberg, 1997) emphasized the importance of biased cognitive processing in the development and maintenance of anxiety disorders. Social phobia is characterized by social fears concerns about social embarrassment, humiliation, and subsequent rejection by others (American Psychiatric Association, 2000). Beck (1976) suggested that cognitive biases exacerbate and perpetuate these social fears via biased processing of social information.

In short, probability and cost biases are believed to result in greater availability of social threat information in memory, increased attentiveness to social threat cues, and inflated estimates of the probability and cost of negative social events. Social phobia may be unique among the anxiety disorders in that it is characterized by overestimates of the cost of events that are objectively non-catastrophic. Anxiety is maintained in part by estimates of the probability and cost of feared negative outcomes. A report presented findings on the frequency, comorbidity of social phobia and social fears among 1035 adolescents, it was found that seventeen (1.6%) of the adolescents met the DSM-IV criteria for social phobia sometimes in their life more girls than boys received the diagnosis of social phobia and the frequency of the disorder increased with age (Essau, Conradt, & Petermann,1999). Theories and models given by

Greenberg; Foa (1986); Clarks & Wells (1995); Rapee & Heimberg (1997); Gilboa-Schechtman (2000) clearly implies that cognitive biases largely influence the social behavior of an individual. Overestimation of cost and probability of negative outcomes distort one's cognition about reality and lead to social anxiety disorder, reduction in such overestimations can lead to symptomatic improvement.

OBJECTIVES

- To study the role of cost of feared negative outcomes in a social situation in social anxiety.
- To study the role of probability of negative outcomes in social anxiety.

METHOD

Sample:

The sample consisted of 50 college students with mean age of 21 years from Jaipur.

Exclusion Criteria:

Individuals with past history of psychiatric illness, or alcohol or drug abuse

Design:

Correlation design was used

Tools:

The following tools and techniques were used to measure different variables:

1) Outcome Probability and Cost Questionnaire (Uren, Szabó, & Lovibond, 2004)

The Outcome Probability Questionnaire is a 12-item self-report questionnaire that assesses an individual's estimate of the probability that negative socially threatening events will occur. Items are scored on a 9-point Likert scale (0 = not at all, 8 = extremely) with summary scores ranging from 0 to 96.Outcome Cost Questionnaire is a 12-item self- report questionnaire that assesses an individual's estimate of the cost of negative social events. Items are scored on a 9-point Likert scale (0 = not at all, 8 = extremely) with summary scores ranging from 0 to 96.Total score in each can be obtain by adding even numbered items (items 2, 4, 6, 8, etc) to obtain social outcomes score and odd numbered items (items 1, 3, 5, 7, 9, etc) to obtain a total physical outcomes score.

2) Liebowitz Social Anxiety Scale (Liebowitz,1987)

The scale features 24 items, which are divided into two subscales. 13 questions relate to performance anxiety and 11 concern social situations. The scale is composed of 24 items divided into 2 subscales, 13 concerning performance anxiety, and 11 pertaining to 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. Combining the total scores for the Fear and Avoidance sections provides an overall score with a maximum of 144 points.

Research supports a cut-off point of 30, in which SAD is unlikely. The next cut-off point is at 60, at which SAD is probable. Scores in this range are typical of persons entering treatment for the non-generalized type of SAD. Scores between 60 and 90 indicate that SAD is very probable. Scores in this range are typical of persons entering treatment for the generalized type of SAD. Scores higher than 90 indicate that SAD is highly probable.

Procedure:

Firstly, questionnaires were selected for the purpose of testing the variables in the study. The questionnaires included Outcome Probability and Cost Questionnaire (Uren, Szabó, & Lovibond, 2004) and Liebowitz Social Anxiety Scale (Liebowitz,1987). The sample was selected on the basis of the inclusion and exclusion criteria. After that, questionnaires were distributed to the sample and raw data was obtained and finally raw data was converted into statistical analysis and the interpretations were made.

RESULTS

The table 1 shows the descriptive statistics of the

Table -1

Descriptive Statistics

	Mean	Std. Deviation
Cost of feared negative outcomes	29.03	12.67
Probability of negative outcomes	30.35	14.34
Social anxiety	26.15	9.23
Avoidance of social situations	33.21	10.44

variables in the sample of the current study. Correlation shows association between cost of feared negative outcomes, probability of negative outcomes, social anxiety and avoidance of social situations. Correlational analysis was conducted and table 2 shows the bivariate correlations between cost of feared negative outcomes, probability of negative outcomes, social anxiety and avoidance of social situations.

Table 2
Zero Order Correlation between the Variables

	Cost of feared negative outcomes	Probability of negative outcomes	Social anxiety	Avoidance of social situations
Cost of feared negative outcomes	-	0.88**	0.37**	0.42**
Probability of negative outcomes	-	-	0.34*	0.41**
Social anxiety	-	-	-	0.85**
Avoidance of social situations	-	-	-	-

**. Correlation is significant at the 0.01 level (2-tailed).,

*. Correlation is significant at the 0.05 level (2-tailed

DISCUSSION

Social anxiety disorder is a persistent fear of one or more social situations where embarrassment may occur and the fear or anxiety is out of proportion to the actual threat posed by the social situation as determined by the person's cultural norms. Typical social situations can be grouped into those that involve interaction, observation and performance. (ICD-10: World Health Organization, 1992; DSM-IV-TR: APA, 2000).Anxiety is maintained in part by estimates of the probability and cost of feared negative outcomes.

The present study aims to explore the relationship between probability and cost of feared negative outcomes. It has found that probability of negative outcomes does have a significant positive correlation (0.88, $p<0.01$) with cost of feared negative outcomes. Results denoted that as the level of probability of negative outcomes increases, so will the cost of feared negative outcomes. Similar findings have been reported by Hofmann (2007) while examining probability of negative outcomes in association with cost of feared negative outcomes. Results validated probability of negative outcomes as positively correlated with cost of feared negative outcomes.

The study findings also revealed that social anxiety has a significant positive correlation (0.37, $p<0.01$) with cost of feared negative outcomes. Higher the level of cost of feared negative outcomes, greater will be the level of social anxiety. Uren, Szabó & Lovibond (2001) and Foa & Kozak (1986) have reported similar findings and results showed social anxiety as positively correlated with cost of feared negative outcomes.

It has also seen in this study that avoidance of social situations are positively correlated (0.42, $p<0.01$) with cost of feared negative outcomes. Hofmann (2007) reported that in order to avoid social mishaps, individuals with SAD revert to maladaptive coping strategies, including avoidance and safety behaviours, followed by post-event rumination.

It has found in the study that probability of negative outcomes is positively correlated (0.33, $p<0.05$) with social anxiety. Outcome Probability and Cost

Questionnaire proposed that there is a positive relation between probability of feared negative outcomes and social anxiety. Similar results were obtained by Manus, Clark & Hackmann (2001) in which they proposed that anxiety disorder is associated with a specific tendency to overestimate the danger inherent in particular situations. There is significant positive correlation (0.41, $p<0.01$) was found between probability of negative outcomes and avoidance of social situations. Study done by Hofmann (2007) has similar findings. Social anxiety does have a positive correlation (0.85, $p<0.01$) with avoidance of social situations. This result is supported by cognitive model by Clarks & Wells (1995) in which social phobics complains to be comfortable in avoiding the social situations rather than being a centre of attraction.

The present study attempted to study role of cost and probability of feared negative outcomes in social anxiety and from the above discussion it can be concluded that significant positive correlation was seen between cost of feared negative outcomes and probability of negative outcomes, social anxiety and cost of feared negative outcomes, avoidance of social situations and cost of feared negative outcomes. Positive relation has also seen between probability of negative outcomes and social anxiety, social anxiety and avoidance of social situations and probability of negative outcomes and avoidance of social situations.

IMPLICATIONS

In India one of every four Indians are suffering from social anxiety. For a person to accept the fact that he is suffering from social anxiety is very difficult. Symptoms like blushing, dizziness, confusion, shyness, negative cognitions; fear can be controlled through following implications: the tendency toward focusing on anxiety symptoms or negative cognitions in a fearful social situation can be retrained by encouraging individuals to direct their attention toward the situation or other external cues instead of their bodily symptoms, fearful thoughts, or negative aspects of themselves. Self-perception can be modified by the use of video feedback, audio feedback, mirror exposures, and group feedback. Behavioral experiments in which the person purposefully creates social mishaps to observe the consequences can be an effective method for targeting the patients' overestimation of social cost. Lastly, post event rumination can be targeted by psychologists by helping patients process negative social events more adaptively through guided questions (e.g. "How will your life change as a result of a particular social mishap?").

CONCLUSION

The present study was undertaken in order to investigate the relationship between cost and probability of feared negative outcomes with social anxiety. From the above results it can be concluded that there is a significant positive relationship between cost, probability of feared negative outcomes, avoidance of social situations and social anxiety.

REFERENCES

American Psychiatric Association (2013) Diagnostic and Statistical Manual of Mental Disorders. (5th Edition). Washington, DC.

Beck, A. T., Emery, G., & Greenberg, R. L. (1985). Anxiety disorders and phobias: A cognitive perspective. New York: Basic Books.

Calamaras, Martha, "Cost and Probability Biases in Social Phobia: Evaluating Their Relation to Attention Bias and Treatment Outcome." Dissertation, Georgia State University, 2014. http://scholarworks.gsu.edu/psych_diss/128

Clark, D. M., & Wells, A. (1995). A cognitive model of social ph.obia. In R. G. Heimberg, M. R. Leibowitz, D.A. Hope, & F. R. Schneier (Eds.), Social phobia: Diagnosis, assessment, and treatment (pp. 69-93). New York: Guilford.

Franklin, M. E., Huppert, J., Langner, R., Leiberg, S., &Foa, E. B. (2005). Interpretation bias: A comparison of treated social phobies, untreated social phobies, and controls. Cognitive Therapy and Research, 29,289-300.

Gilboa-Schechtman, E., Franklin, M. E., & Foa, E. B. (2000). Anticipated reactions to social events: Differences among individuals with generalized social phobia, obsessive compulsive disorder, and non anxious controls. Cognitive Therapy and Research, 24, 731.

Grant, D. M., & Beck, J. G. (2006). Attentional biases in social anxiety and dysphoria: Does comorbidity make a difference? Journal of Anxiety Disorders, 20,520-529.

Heimberg, R. C., Brozovich, F. A., & Rapee, R. M. (2010). A cognitive behavioral model of social anxiety disorder: Update and extension. In S. G. Hofmann & P. M. DiBartolo (Eds.), Social anxiety: Clinical, developmental, and social perspectives (2nd ed.). (pp. 395-422). San Diego, CA US: Elsevier Academic Press.

Heinrichs, N., & Hofman, S. G. (2001). Information processing in social phobia: A critical review. Clinical Psychology Review, 21(5), 751-770. doi: 10.1016/s0272-7358(00)00067-2

Hofmann, S. G. (2004). Cognitive mediation of treatment change in social phobia. Journal of Consulting and Clinical Psychology, 72,392-399

Kaplan, H. I., & Sadock, B. J. (1988). Synopsis of psychiatry: Behavioral sciences clinical psychiatry. Williams & Wilkins Co.

Leibotwitz MR. Social Phobia. Mod Prabl Pharmacopsychiatry 1987; 22:141-173.

McManus, F., Clark, D. M., & Hackmann, A. (2000). Specificity of cognitive biases in social phobia and their role in recovery. Behavioural and Cognitive Psychotherapy, 28(03), 201-209.

Poulton, R. G., & Andrews, G. (1994). Appraisal of danger and proximity in social phobies. Behaviour Research and Therapy, 32,639-642.

Rapee, R. M., & Heimberg, R. G. (1997). A cognitive-behavioral model of anxiety in social phobia. Behaviour research and therapy, 35(8), 741-756.

Smári, J., Bjarnadóttir, A., & Bragadóttir, B. (1998). Social anxiety, social skills, and the expectancy/cost of negative social events. Scandanavian Journal of Behaviour Therapy, 27,149-155.

Stopa, L., & Clark, D. M. (2000). Social phobia and the interpretation of social events. Behaviour Research and Therapy, 38,273-283.

Uren, T., Szabó, M., & Lovibond, P.F. (2004). Probability and cost biases in panic disorder and social phobia. Journal of Anxiety Disorders, 18, 481-489.

White, M., McManus, F., & Ehlers, A. (2008). An investigation of whether patients with post-traumatic stress disorder estimate the probability and cost of future negative events. Journal of Anxiety Disorders, 22, 1244-1254.

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