

PERFECTIONISM AND NEGATIVE THINKING AS PREDICTORS OF SOCIAL ANXIETY IN ADULTS: ROLE OF COGNITIVE REAPPRAISAL

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ABSTRACT

This study aims to assess the impact of perfectionism and negative thinking on social anxiety adults, with cognitive reappraisal as a potential mediating factor. A sample of 300 adults with an age range of 18-30 years old from the general population participated, and completed the series of self-reporting measures including Perfectionistic Self-Presentation Scale, Preservative Thinking Questionnaire, Emotional Regulation Questionnaire and Brief Fear of Negative Evaluation-Revised alongside a specific screening questionnaire for social anxiety, Social Phobic Screener. Correlational and regression analysis was conducted using SPSS, and mediation analysis was tested via Process Macro (Model 4). Results of the findings suggested that perfectionism and negative thinking were significantly and positively associated with social anxiety. However, cognitive reappraisal did not mediate these relationships. The findings indicated that while maladaptive thinking patterns like perfectionism and perseverative thinking play a substantial role in social anxiety, cognitive reappraisal may not independently buffer these effects. These results highlight the importance of targeting perfectionism and repetitive negative thinking directly in interventions for social anxiety. Further research is needed to explore other potential cognitive or emotional mediators that might better explain this relationship.

Keywords: Perfectionism, Negative Thinking, Social Anxiety, Cognitive Reappraisal, Adults.

INTRODUCTION

Social anxiety is a prevalent mental health condition that has a very distressing impact on daily functioning and the general quality of life of an individual. In contrast, the perfectionism and negative thinking are important aspects that worsen its effects in adults as this is a transitional period for them they often face significant social, academic and professional pressures. These challenges can trigger or frequently exacerbating symptoms and hinder social functioning especially when coupled with perfectionistic tendencies and negative thought patterns

(Abdollahi, 2019). According to (Leichsenring & Leweke, 2017) the onset of the disorder is typically occurs in childhood and late adolescence and continues to persist in adulthood if left untreated. Previous research (Merikanges et al., 2011; Klemanski et al., 2016) also suggested that if the treatment of anxiety is not done properly then it can lead to the emergence of other mental disorders which includes depression and other psychotic disorders. There are a variety of physical and psychological symptoms associated with social

anxiety that include, shaky voice, heart palpitations, lack of focus and concentration (Stjerneklar et al., 2018). Other than that the symptoms may appear while doing daily life activities like eating, drinking, talking, and when meeting with strangers.

Social anxiety can exacerbate pre-existing anxiety by causing stagnation, lack of social skills, and isolation. The constant fear by negatively evaluated by others indicates anxiety issues. It is considered abnormal behavior or a disorder when an individual experience great fear of rejection or criticism when engaging with peers or groups (Urooj et al., 2023; Wang et al., 2022). As a result, individuals minimize their interaction with others the individual prefers solitude over crowds and unwelcome attention. Individuals with this personality type are constantly concerned about being noticed or evaluated.

Previous research (Chiu et al., 2022; Paul, 2011) suggested that people with social anxiety often find it difficult in regulation of emotions particularly those related to social situations. They are unable to manage their feelings, shame, self-consciousness and embarrassment, which results in increased levels of emotional discomfort and distress. To reduce discomfort, the individuals use unhealthy coping mechanisms such as avoidance strategies, they tend to avoid social interactions the cycle continues to repeat (Cludius et al., 2020).

Perfectionism and negative thinking are cognitive constructs that exacerbate the social anxiety symptoms among adults and the cycle of distress, fear and avoidance, continue to repeat (Hewitt et al., 2010). Perfectionism is a complex construct as it involves the interaction of different factors and processes that may be emotional, behavioral, cognitive, and motivational (Flett & Hewitt, 2007). Various definitions of perfectionism have been given throughout the history of psychology. According to Hewitt et al. (2003), self-presentation involves striving for an ideal public self. Hewitt et al. (2003) identified three types of perfectionistic self-presentation: perfectionistic self-promotion, non-display of imperfections, and non-disclosure of imperfections.

Perfectionists' self-presentation perspective states that perfectionist prioritize their appearance and strive for perfection. In other words, some perfectionists focus primarily on impression

control. They tend to be appear perfect in all aspects whether its social, moral in order to gain respect and admiration. This involves attempts at self-presentation to project an idealized public image that could potentially be seen as repulsive to others and driven by pathology (Hewitt et al., 2003).

Another dimension of perfectionism as explained by Hewitt and his colleagues (2003) is the non-display of imperfection which refers to avoiding overt behavior because people have an excessive need to avoid being perceived as imperfect. Consequently, people tend to avoid situations where they are the centre of attention because they fear. The basic goal of non-display of imperfection is to refrain from any overt behavior that may be interpreted by others as less than ideal. In other words, it implies anxiety regarding demonstrations that an individual has witnessed flaws and failures. Avoidant behavior involves hiding one's flaws to avoid being perceived as imperfect. This can lead to feelings of inadequacy or incorrectness.

According to Hewitt et al. (2003), nondisclosure of imperfections involves refraining from discussing flaws, blunders, and failures verbally. Individuals with a high level of nondisclosure of imperfection struggle with admitting their mistakes and communicating their worries verbally.

All three dimensions of perfectionism are related to the psychological issues such as anxiety, stress, depression, suicidal ideation, and anorexia nervosa, relationship difficulties and social hopelessness (Besser et al., 2010; Hewitt et al., 2011; Roxborough et al., 2012). Previous literature (Chen et al., 2015; Fatima et al., 2021) suggested that even after controlling the other factors of personality, association is still found between perfectionism and psychological issues. Since it is impossible to maintain perfection for a longer period it could be self-defeating which leads towards depression and other psychological problems. Perfectionists exhibit self-defeating cognitive distortions, including 'all or none' thinking patterns that cause an overreaction to mistakes, as well as 'should' statements like 'should have worked harder' and 'should have been a better person'. Similarly, perfectionist tends to underestimate their achievements and generalize their failures leading them towards a negative self-image. Furthermore, the

perfectionist also highlights past failures and have telescopic thinking which means overemphasize past failures and ignore the past success as it means nothing to them and only prioritize future achievements (Stoeber, & Gaudreau, 2017; Wang et al., 2022). Previous research (Chang et al., 2008; Stoeber & Rennert, 2008; Fatima et al., 2021) also suggested that perfectionism is related to procrastination, depression, anxiety, avoidance behavior, and personal controlling strategies.

On the other hand, negative thinking is referred to as the pessimistic and distorted perceptions of individual regarding the world, others, and oneself (Ehrring et al., 2011). These include various thinking patterns that are distorted in nature that are catastrophizing, overgeneralization, etc. Previous research suggested (Piotrowski, 2019) that various emotional problems have been associated with negative thinking patterns that are in the form of self-doubt worry, rumination, and focusing more on problems rather than on a solution. Negative thinking has a substantial impact on the overall emotional and mental well-being of an individual and when the thoughts become invasive and persistent they can result in the form of various psychological and interpersonal problems (Mills et al., 2014; Palmieri et al., 2021). According to Ehrring and Watkins (2008), negative thinking is not related to depression or generalized anxiety disorders, but there is heightened level of evidence that extreme forms of recurrent thoughts could be a possible factor in the maintenance of post-traumatic disorder, social anxiety, obsessive-compulsive disorder, eating disorder, psychosis and bipolar.

Negative thinking plays a crucial role in perpetuating the perfectionistic tendencies in any individual by reinforcing it especially when it is related to maladaptive forms. Different reasons interlinked negative thinking with perfectionism as stated by (McEvoy et al., 2023) perfectionistic people have very high standards for themselves and when they don't meet those standards, severe, self-criticism results in the manifestation of negative thinking. They tend to engage in the attitude that reflects to avoid mistakes and errors at any cost reinforces cycle of belief to focus on shortcomings rather than achievements. This emphasis on shortcomings encourages all and none thinking where failure is defined as

anything that is beyond perfection (Law & Tucker, 2018)

To break this vicious cycle cognitive reappraisal is considered as the adaptive emotional regulation process. It is defined as the ability of an individual to reframe their thoughts in such a way to change their emotional impact (Gross & John, 2003). According to Gross (2015) the cognitive reappraisal decreases the emotional reactivity, reduces psychological arousal and improves the overall well-being. It is implemented to reduce anxiety and fear when an individual faces automatic negative thoughts and challenging situations. Previous research (Zafar et al., 2020) illustrated that people with social anxiety disorder are less likely to use reappraisal and have low efficacy.

Previous studies (English & John, 2013; Gross & Cassidy, 2019) suggested that emotional regulation strategies are likely to influence the psychological and social well-being during the entire span of life of an individual particularly depending on their use. The ones who fail to use those strategies effectively are at the risk of having emotional dysregulation which further makes them more susceptible to having psychological disorders that include depression, anxiety, addiction, and eating problems.

According to previous research the use of adaptive emotional regulation strategies like cognitive reappraisal is less likely associated with psychopathologies and has increased levels of positive behaviors (Hayes et al., 2018; Brans et al., 2013). On the other hand, Otterphol and Colleagues (2016) suggested that the ones who engage themselves in the use of maladaptive strategies like expressive suppression are more prone of developing internalizing and externalizing behavioral problems. Individuals who use cognitive reappraisal more effectively reported lower levels of anxiety and depression and have higher levels of self-esteem and have more optimistic approach towards life as compared to the ones who engage themselves with the use of expressive suppression reported high levels of depression, have fewer social connections, and social support and have more pessimistic approach because of lack of coping skills which make them more unsatisfied with life (Abler et al., 2010; Llorca et al., 2017). Previous research demonstrated that expressive suppression is related to higher levels of

behavioral problems while cognitive reappraisal is associated with lower levels of behavioral problems (Cutuli, 2014; Zafar et al., 2020). Whereas, cultural findings may be contrary from one culture to another. Kang and Goa (2021) revealed that the difficulty in the regulation of emotions is positively connected with having a higher risk of psychopathology.

According to Hukkelberg and Colleagues (2019) emotions directly or indirectly influence and shapes up our behaviour which help us to m adjust to our surroundings. However, one of the pathways that leads towards maladjustment is the less use of emotional regulation skills that eventually manifests in various emotional and behavioural problems further leading them towards adaptation failures. In contrast, adults who can to employ the emotional regulation skills in effective and flexible manner are more likely to engage in positive behaviours have better relationships and have a higher levels of social competence.

In Pakistani society, collectivism and societal norms are highly valued, and people often feel more pressure to conform to societal standards, which further exaggerate the feelings of inadequacy and fear of judgment. The concept of fitting in, and worrying about what other thinks is very common so dealing with social anxiety could be extra difficult to deal with while living in Pakistan (Urooj et al., 2023). However, cognitive reappraisal is an adaptive emotional regulation strategy that may help mitigate these effects but its mediating role remains underexplored, especially in Pakistan. Despite the established links between perfectionism, negative thinking, and social anxiety still is it unclear how perfectionism and negative thinking contribute to the development and maintenance of social anxiety that's why it is necessary to explore these associations in relation to mediating factors to gain a better understanding and deploying the effective intervention strategies for adults.

Method

Objectives of the Study

1. To examine the association between perfectionism, negative thinking, and social anxiety among adults.

2. To investigate the mediating role of cognitive reappraisal for perfectionism, negative thinking, and social anxiety among adults.

Hypotheses of the Study

1. There will be a positive relationship between perfectionism (*perfectionistic self-promotion*, non-display of imperfections, non-disclosure of imperfections) and social anxiety among adults.

2. There will be positive relationship between negative thinking and social anxiety among adults.

3. Cognitive Reappraisal will mediate the relationship between perfectionism, negative thinking, and social anxiety.

INSTRUMENTS

Perfectionistic Self-Presentation Scale (PSPS; Hewitt et al., 2003) The Perfectionistic Self-Presentation Scale is 27 items scale that assessed perfectionistic measures of individuals on a 7-point Likert scale (1 = Strongly disagree to 7 = Strongly Agree). It consists of three subscales, Perfectionistic self-promotion with 10 items (*I try always to present a picture of perfection, if I seem perfect, others will see me more positively*), Non-display of imperfection with 10 items (*I judge myself based on the mistakes I make in front of others, I will do almost anything to cover up a mistake*) and nondisclosure of imperfection with 7 items (*It is okay to show others that I am not perfect, I try to keep my faults to myself*). Reverse Scored items are 1,11,16,18,22. The score for perfectionistic self-promotion, and non-display of imperfection ranges from 10-70 and for nondisclosure of imperfection score ranges from 7- 49. A high score on each subscale reflect a high level of particular perfectionistic tendency and vice versa. The test-retest reliability ranges from ($\alpha = .74$ to $\alpha = .84$) and internal consistency ranges from ($\alpha = .72$ to $\alpha = .88$) (Hewitt et al., 2003).

Preservative Thinking Questionnaire (PTQ; Ehring et al., 2011). Preservative thinking questionnaire is a self-report measure of state rumination consisting of 15 items on a 5-point Likert scale (0 = never to 4 = almost always) with the score ranges from 0-60. The PTQ comprises three subscales that are PTQ-Core with 9 items, assessing the level of repetitiveness (*The same thoughts keep coming back to my mind again and*

again), Intrusiveness (*"Thoughts come to my mind without me wanting them to"*) and, difficulty to disengage from (*"I can't stop dwelling on them"*) three items in each domain 2) unproductiveness (*"I keep asking myself questions without finding an answer"*) and capturing mental capacity (*"My thought prevents me from focusing on other things"*). Cronbach alpha reliability was $\alpha = .89$ (Ehring et al., 2011).

Emotional Regulation Questionnaire (ERQ; Gross & John, 2003). The Emotional Regulation Questionnaire (ERQ) which measures expressive suppression and cognitive reappraisal, will be used in this study and consist of 10 items on a 7-point Likert scale (1 = *strongly disagree* to 7 = *strongly agree*). Cognitive reappraisal has 6 items (*When I want to feel more positive emotions (such as joy or amusement), I change what I'm thinking about, When I want to feel less negative emotions (such as sadness or anger), I change what I'm thinking about*) with a score range was 6-42 and expressive suppression with 4 items (*I keep my emotions to myself, When I am feeling positive emotions, I am careful not to express them.*) with a score range from 4-28. The higher scores reflect a high use of that emotional regulation strategies and vice versa. The averaged alpha reliabilities for reappraisal and suppression are $\alpha = .79$ and $\alpha = .73$. For the present study only one subscale was utilizing which is cognitive reappraisal (Gross & John, 2003).

Social Phobia Screener (SOPHS; Batterham et al., 2016). The SOPHS is the five-item screening instrument for social anxiety. Each item is rated on 5-point Likert-type scale (0 = not at all to 4 = extremely). People who respond "not at all" to question 1 are given a total score of 0. This method will provide a score ranging from 0-20, with higher scores indicating greater severity of social anxiety symptoms. For assessing possible clinical caseness, you can use either a cut-off from the total score (≥ 8) or an item-based approach. The item-based approach defines clinical criteria based on responses of "a little" or higher for items 1, 2, and 5, and either item 3 or 4. This screening instrument had high internal consistency ($\alpha = .93$).

Brief Fear of Negative Evaluation-II (BFNE-R; Carleton et al., 2007).

The Brief Fear of Negative Evaluation-revised is a 12-items self-report measures that assesses fear of negative evaluation and social anxiety in adults on a 5-point Likert scale (0 = not at all to 4 = extremely) (*"I am afraid that others will not approve of me"*). The score ranges from 0 to 48. Cronbach alpha reliability ranges from ($\alpha = .96$ to $\alpha = .97$), with an internal consistency coefficient ($\alpha = .98$). Higher score reflects a high level of social anxiety. The total score is calculated by the summation of all items (Carleton et al., 2007).

SAMPLE

Participants ($N = 300$) with an age range of 18 to 30 years old ($M = 22.14$, $SD = 2.83$) were recruited by using a purposive sampling technique from the general population.

Inclusion Criteria.

For this study, the inclusion criteria will be as follow

- Both male and female.
- Able to read and understand items.
- Minimum secondary education qualification.

Exclusion Criteria

For this study the exclusion criteria will be as follow

- Individual with other psychological disorder such as depression, bipolar, and psychosis.

PROCEDURE

After seeking permission from the authors for the current study ethical approval was obtained. A consent form was taken from participants which provided them with detailed information about the nature and the purpose of study they were briefed about the aims of the study and assure that the information they provided was kept confidential and only used for research purpose. They were told about their voluntary participation in the research and that they can withdraw from the research at any point without any justification. In case of any discomfort, participants were briefed about the sensitivity of the topic and were provided free counselling helplines that can help them and they were also given the option to talk to the researcher.

RESULTS

In order to study the relationship between the study variables Pearson product moment

correlation were carried out that were display below in Table 1.

Table 1

Descriptive Statistics and Correlation between all the Scales & their Sub-scales for the Study Variables (N = 300)

Variables	n	M	SD	1	2	3	4	5	6	7	8
Perfectionistic Self-Presentation Scale											
1 Perfectionistic Self Promotion	300	43.91	9.39	-	-	-	-	-	-	-	-
2 Non-Display of Imperfection	300	44.14	11.04	.63**	-	-	-	-	-	-	-
3 Non-Disclosure of Imperfection	300	32.24	5.82	.33**	.35**	-	-	-	-	-	-
Preservative Thinking Questionnaire											
4 PTQ-Core	300	21.35	8.71	.42**	.59**	.24**	-	-	-	-	-
5 Unproductiveness	300	6.81	3.12	.33**	.51**	.18**	.78**	-	-	-	-
6 Mental Capacity	300	7.17	3.15	.42**	.52**	.06	.71**	.69**	-	-	-
7 Total PTQ	300	34.14	13.29	.43**	.62**	.21**	.96**	.86**	.83**	-	-
Brief Fear of Negative Evaluation-Revised											
8 Social Anxiety	300	25.28	10.29	.14*	.29**	.14*	.37**	.35**	.31**	.39**	-
Emotional Regulation Questionnaire											
9 Cognitive Reappraisal	300	26.04	7.25	.21**	.26**	.03	.14*	.03	.11	.12	.11

* $p < .05$. ** $p < .001$.

Results illustrated that the perfectionistic self-promotion and the non-display of imperfection were significantly positive associated with all study variables. Similarly, the non-disclosure of imperfection was positively correlated with all and non-significant association with mental capacity and cognitive reappraisal. The result further indicated a significant positive association of PTQ-core with all the variables. Moreover, unproductiveness was positively correlated with mental capacity, total preservative thinking and social anxiety whereas, non-significant association was found between cognitive reappraisal. Positive significant association of

mental capacity were apparent for total preservative thinking and social anxiety except for cognitive reappraisal. The result depicted a significant positive correlation of total preservative thinking with social anxiety and a non-significant association was found with cognitive reappraisal. The findings further revealed a non-significant association of social anxiety with cognitive reappraisal.

After examining correlation for hypothesis testing, multiple regression analysis was conducted to assess the impact of perfectionism and negative thinking on social anxiety.

Table 2

Impact of Perfectionism and Negative Thinking along with their subscales on Social Anxiety (N = 300).

Models	Variables	Social Anxiety				
		B	SE	t	R ²	95% CI
1	Constant	18.58	32.82	5.56		[8.41, 17.66]
	Perfectionistic Self Promotion	.15*	.06	5.38	.02	[-.17, .37]
2	Constant	13.04	2.34	5.56		[8.43, 17.65]
	Non-Display of Imperfection	.27**	.05	5.37	.09	[-.17, .38]
3	Constant	17.54	3.33	5.27		[10.98, 24.09]
	Non-Disclosure of Imperfection	.24*	.11	2.36	.02	[-.04, .44]
4	Constant	15.47	1.51	10.22		[12.50, 18.45]

	PTQ-Core	.46**	.06	6.95	.15	[.33, .59]
5	Constant	17.52	1.34	13.05		[14.87,20.16]
	Unproductiveness	1.14**	.18	6.36	.12	[.78, 1.49]
6	Constant	18.08	1.42	12.74		[15.29,20.88]
	Mental Capacity	1.01**	.18	5.53	.09	[.65,1.36]
7	Constant	14.66	1.55	9.54		[11.61,17.71]
	Total PTQ	.31**	.04	7.31	.15	[.22,38]

Note. CI = Confidence Interval.

The table showed the results of multiple regression analysis in order to examine the impact of perfectionism and negative thinking on social anxiety. Model 1 was significantly and positively associated with social anxiety with the R^2 value .02 explained 2% variance in the outcome variable with $F(1, 298) = 5.76, p = .02$ with $(B = .14, p < .05)$ that indicates the individual who emphasized their achievements in order to be appear more prefect are more prone of having social anxiety. Model 2 reveals that non-display of imperfection was positive predictor of social anxiety with the with the value of .09 R^2 explained variance of 9% $F(1,298) = 28.93, p = <.001$ with $(B = .29, p < .001)$. Similarly, Model 3 reveals the positive association of social anxiety

with R^2 value of .02 explained variance of 2% variance $F(1,298) = 5.65, p = .02$ with $(B = .14, p < .05)$. Moreover, In Model 4 the predictor variable explained the variance of 14% of R^2 value .14 for social anxiety $F(1,298) = 48.36, p = <.001$ with $(B = .14, p < .001)$. Model 5 illustrated the strong predictor of social anxiety with the variance of 12% $F(1,298) = 40.46, p = <.001$ with $(B = .37, p < .001)$ suggesting that lack of productivity and inefficacy are the possible contributor. Whereas, Model 6 and Model 7 are also the significant and positive predictor with the R^2 value of variance of 9% $F(1,298) = 30.55, p = <.001$ with $(B = .31, p < .001)$ and 15 % $F(1,298) = 53.53, p = <.001$ with $(B = .39, p < .001)$ respectively

Table 3

Mediating effect of Cognitive Reappraisal between Perfectionism along with subscale, and Negative Thinking on Social Anxiety (N = 300)

Models	Effect	β			95% CI	
		coefficient (effect)	SE	p	LL	UL
1	Perfectionistic self-promotion → Cognitive reappraisal (a)	.16	.04	<.001	.07	.25
	Cognitive reappraisal → Social anxiety(b)	.12	.08	.14	-.04	.28
	Direct Effect	.13	.06	.04	.01	.26
	Perfectionistic self-promotion → Social anxiety (c)	.15	.06	.02	.03	.27
	Total Effect (c)	.15	.06	.02	.03	.27
	Indirect Effect (a × b)	.02	.02		-.01	.06
2	Non display of imperfection → Cognitive reappraisal (a)	.17	.04	<.001	.09	.24
	Cognitive reappraisal → Social anxiety(b)	.05	.08	.52	-.11	.21
	Direct Effect	.27	.05	<.001	.16	.37
	Non display of imperfection → Social anxiety (c)	.28	.05	<.001	.17	.38
	Total Effect (c)	.28	.05	<.001	.17	.38
	Indirect Effect (a × b)	.01	.02		-.02	.04
3	Non-disclosure of imperfection → Cognitive reappraisal (a)	.04	.07	.58	-.11	.18
	Cognitive reappraisal → Social anxiety(b)	.15	.08	.06	-.01	.31
	Direct Effect	.23	.11	.02	.04	.43
	Non-disclosure of imperfection → Social anxiety (c)	.24	.10	.02	.04	.44
	Total Effect (c)	.24	.10	.02	.04	.44

	Indirect Effect ($a \times b$)	.01	.02	-.02	.04
4	PTQ → Cognitive reappraisal (a)	.06	.03	.04	.003
	Cognitive reappraisal → Social anxiety(b)	.09	.07	.22	-.05
	Direct Effect	.29	.04	.00	.22
	PTQ → Social anxiety (c)	.30	.04	.00	.22
	Total Effect (c)	.006	.007	-.005	.02
	Indirect Effect ($a \times b$)				

* $p < .05$. ** $p < .001$.

The table demonstrated the mediating role of cognitive reappraisals between perfectionism along with subscales on social anxiety. Where Model 1 represented the mediating role of cognitive reappraisals in between perfectionistic self-promotion and social anxiety. The indirect effect ($\beta = .02$; $S.E = .02$) with 2% variance revealed non-significant mediation for this

association. Model 2 represented the mediating role of cognitive reappraisals in between non-disclosure of imperfection and social anxiety. The indirect effect ($\beta = .01$; $S.E = .02$) with 2% variance revealed non-significant mediation for this association. Furthermore, model 3 and 4 also shown the non-significant mediation.

Figure 1. Mediating effect of Cognitive Reappraisal in Predicting Social Anxiety with Perfectionism and its subscales.

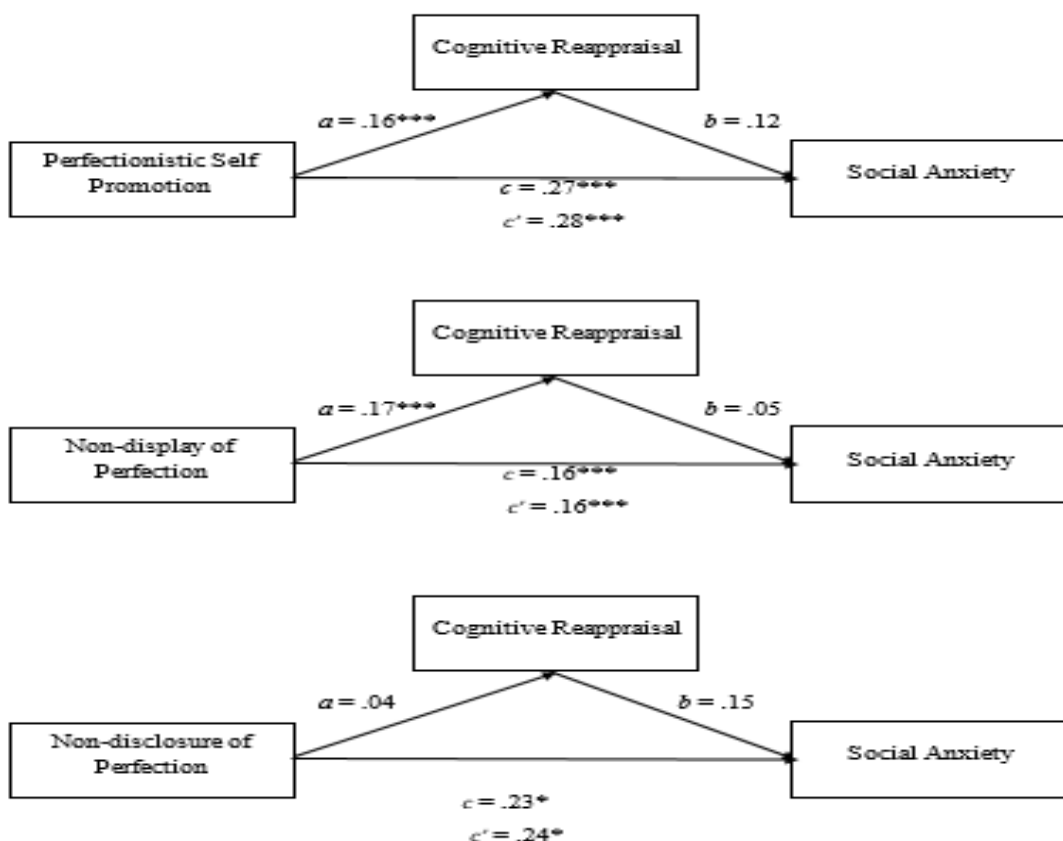
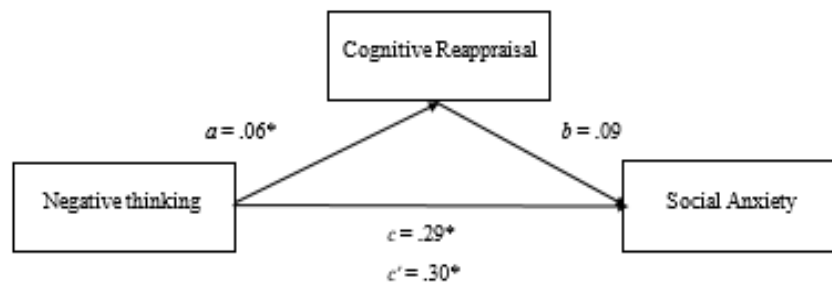


Figure 2. Mediating effect of Cognitive Reappraisal in Predicting Social Anxiety with Negative Thinking.



DISCUSSION

The purpose of the study was to investigate the effect of perfectionism and negative thinking on social anxiety among adults. The present study also explores the role of cognitive reappraisal in the association of these variables. To explore the association between negative thinking, perfectionism on social anxiety among adults, cross-sectional research design was used. Participants aged 18 to 30 years old were recruited through university, and community settings to ensure a diverse sample. Data collection involved the hard copy questionnaire, which participants completed in person. Prior to participation, informed consent was obtained from the participant and they were assured of the confidentiality of their responses.

For the first hypothesis, it was assumed that there will be a positive relationship between perfectionism (perfectionistic self-promotion, non-display of imperfection and non-disclosure of imperfection) and social anxiety among adults. The findings of the study revealed the a significant positive association of perfectionism (perfectionistic self-promotion, non-display of imperfection and non-disclosure of imperfection) with social anxiety which is in line of previous researches (Fatima et al., 2021; Urooj et al., 2023; Wang et al., 2022;) as the perfectionistic individuals have internal fear of failure and self-criticism so they often set high standards for themselves and when they are not able to fulfil those standards they become overly critical and this self-imposed pressure of constant fear of making mistakes and negatively judged by others increases the risk of symptoms of social anxiety in social situations.

Further, it was hypothesized that negative thinking will have positive relationship with social anxiety. The current findings confirmed a

significant positive relation of negative thinking with social anxiety that are consistent with the previous literature (Esbjorn et al., 2022; Kuorta et al, 2023; Yap et al., 2016). As negative thinking includes the constant pattern of worry, distressing thoughts and fear of judgement that heightened the self-doubt in the individuals which make them more sensitive in social situations, as a result these repetitive thoughts reinforces the avoidance behavior that sustains the cycle of social anxiety.

For the third hypothesis, it was assumed that cognitive reappraisal will mediate the relationship between perfectionism (perfectionistic self-promotion, non-display of imperfection and non-disclosure of imperfection), negative thinking and social anxiety. The finding of the study revealed the positive significant association of perfectionism (perfectionistic self-promotion, non-display of imperfection) and negative thinking with cognitive reappraisal and non-significant association with non-disclosure of imperfection. Where the direct and total effect were positively significant but the indirect effect through cognitive reappraisal was not significant thereby results rejected the hypothesis number 3 (see Table 3). These findings can be explained in terms of cultural context as in Pakistani society, collectivism, family expectations and societal norms are highly valued, and people often feel more pressure to conform to societal standards, which further exaggerate the feelings of inadequacy and fear of judgment. The concept of fitting in, and worrying about what other thinks is very common and the preference for expressive suppression and the dominant role of rumination in emotional regulation often results in overshadowing the potential buffering effects of cognitive reappraisal as the individual may not

be able to reframe their thoughts effectively because of the deeply rooted cultural and societal norms and external expectations (Mohammadian et al., 2018; Tamannaefar et al., 2023).

Limitations and Future Recommendations

The first limitation of this study is that the sample was only taken from the adults who was experiencing social anxiety that limits the generalizability of the findings to the broader population of Pakistan. Future studies should acquire data that is inclusive of clinical samples, to assess the better understanding of the relevance in therapeutic settings by including adolescents or individuals having other anxiety disorders or depression, to enhance its generalizability.

Secondly, the present research relies on the self-report measures that increase the chances of response bias such as social desirability as participants might not answer honestly. Future researches should inculcate various assessments methods such as behavioral observation and clinical interviews to increase the data reliability. Thirdly, the purposive sampling was utilized to draw a sample of respondents which has a limitation for the present study in terms of generalizability and selection biasness. Future studies could use random and stratified sampling to enhance representativeness and reduce biases. Another limitation of the study is the limited use of adaptive strategy such as cognitive reappraisal in association with these variables as a mediator. Future researches could explore the association of these variables with other potential mediator or moderators such as expressive suppression, self-compassion and mindfulness to gain a better understanding of the mechanism of social anxiety with reference to the cultural context.

Conclusion

In conclusion, overall the findings of the present research demonstrated that different domains of perfectionism and negative thinking are closely connected with the anxiety problems in adults suggesting that those who imposed high self-standards for themselves and repetitive negative thoughts are more prone of having fear of negative evaluation. Whereas, the cognitive reappraisal is the important aspect that act as the protective factor against social anxiety but with reference to the present research the cognitive

reappraisal did not significantly mediate the association suggesting that its role in regulating the social anxiety may be limited that highlights the importance of cultural and psychological factors that should be taken into consideration while exploring emotional regulation strategies. Furthermore, with reference to Pakistani culture, the emphasis is given more on social harmony and expressive suppression. As individuals more engage themselves in suppression of emotions rather than reappraisal of thoughts because of the deeply rooted cultural, societal norms and external expectations.

Conflict of Interest

The authors declared no potential conflicts of interest.

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