

# Prediction of Anger Suppression Based on Obsessive Beliefs and Anxious Preoccupied Attachment Style among the Non-Clinical Population: A Cross-Sectional Study

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## ABSTRACT

**Background:** Various psychological factors can affect the type of emotions. Therefore, the aim of the present study was to predict anger suppression based on obsessive beliefs and preoccupied attachment style among non-clinical population.

**Methods:** The research method was a descriptive-correlation type. The statistical population included all undergraduate students of the humanities faculties of Universities of Tehran in the academic year of 2022-2023, who were selected through Cluster sampling of 312 students. Usage: State-Trait Anger Expression Inventory-2 (STAXI-2), Obsessive Beliefs Questionnaire (OBQ-44) and Experiences in Close Relationships (ECR) were used. Finally, the data were analysed by Pearson correlation and multiple regression methods.

**Results:** The results of step-by-step regression analysis showed that both scales of preoccupied attachment style and obsessive beliefs are able to significantly predict anger suppression. In the first step, the preoccupied attachment style ( $\beta = 0.54, P < 0.001$ ) explained 29.3% of the variance of anger suppression, and in the second step, the obsessive beliefs scale ( $P < 0.001, 0.13 = \beta$ ) was also added to the model and increased the explained variance to 30.9% and actually increased the explanation coefficient by 1.6%.

**Conclusion:** The findings of the study confirm the relationship between preoccupied attachment style and obsessive beliefs for anger suppression. Separating the role of attachment styles and incompatible beliefs can have a significant effect on expressing or not expressing anger.

**Keywords:** Anger, cognitive distortions, attachment

## Introduction

In accordance with psychodynamic theories, the expression of anger, play a significant role maintenance of symptoms and markers of Obsessive-Compulsive Disorder (OCD) (Cludius et al., 2021a). Research on the experience of anger identifies three discernible factors: 1) Suppressed anger (internal anger), 2) Expressed hostility towards others (external anger), and 3) The effort an individual exerts to control their anger (anger control) (Whiteside & Abramowitz, 2005). The anger suppression is defined as the act of restraining or concealing aggression or hostility towards others, which is not directly expressed but rather manifests itself in an imaginative or often censored manner, typically beyond the individual's conscious awareness (Sadeghpour et al., 2015). Research in the context of emotion regulation has shown that early experiences, including attachment relationships with caregivers, may play a significant role in the development of emotion regulation abilities. These early experiences can be crucial precursors for the onset of emotion regulation difficulties (Conrad et al., 2021). Therefore, in insecure attachment relationships, caregivers are not readily available to soothe their children in times of distress, impacting the children's emotional regulation abilities. In light of this backdrop, there is increasing evidence to consider attachment theory as a theory of emotion regulation, given that emotional regulation in caregiver-child relationships lays the foundations for self-regulation of emotions (Conrad et al., 2021). In this regard, in a study by Brodie and colleagues (2019), it was demonstrated that individuals with preoccupied attachment style may employ a suppression strategy when confronted with experiences of anger (Brodie et al., 2019).

Attachment refers to the primary emotional bond between an infant and caregiver. Sensitive, responsive, and warm caregiving is predictive of secure attachment, while an inconsistent, cold, and unresponsive interpersonal style is empirically linked to insecure attachment (Bowlby, 2008; Boysan & Çam, 2018). This attachment system,

stabilizes in adulthood, shaping cognitive-emotional patterns that transform into templates for an individual's expectations and evaluations of intrapersonal and interpersonal relationships. Furthermore, empirical evidence supports the hypothesis that individuals with insecure attachment styles are more vulnerable to a range of emotional and cognitive regulation difficulties (Amianto et al., 2022; Mikulincer & Shaver, 2019). Given the significance of early experiences in the development of emotion regulation abilities, attachment relationships between caregivers and children may play a crucial role in the onset of emotion regulation difficulties (Liu & Ma, 2019). Additionally, it should be acknowledged that individuals with preoccupied attachment style tend to over activate the attachment system, intensifying chronic negative emotions highlighting their vulnerability and personal needs (Conrad et al., 2021; Liu & Ma, 2019; Messina et al., 2023). Research indicates that the role of attachment in shaping cognitive models of one's world, others, and oneself, which can influence the development of obsessive beliefs, is pivotal. Moreover, cognitive theories suggest a close relationship between OCD and anger suppressed, stemming from dysfunctional beliefs (Cludius et al., 2021b; Yarbrow et al., 2013). Therefore, in light of these findings, one of the predictive factors for anger suppression can be attributed to obsessive beliefs.

Obsessive beliefs are classified into three main categories: 1) Excessive Responsibility, 2) Perfectionism, and 3) Need for Control over Thoughts (Tolin et al., 2007). Individuals with obsessive beliefs tend to equate their intrusive thoughts with actions (thought-action fusion) When fused beliefs become active, they lead to concerns about the occurrence of intrusive thoughts and distress trigger beliefs about compulsive actions, ultimately resulting in neutralization and coping behaviours. On the other hand, Excessive responsibility fully mediates the impact of thought-action fusion and leads to anger suppression (Cervin et al., 2022; Cludius et al.,

2021a; Ekici et al., 2022; Sadehpour et al., 2015). In the study by Radomsky and colleagues (2007), it was demonstrated that thought-action fusion is considered a belief associated with the internal expression of anger. In other words, obsessive beliefs are related to maladaptive emotion control strategies (Pettigrew, 2022; Radomsky et al., 2007). These individuals resort to suppression to neutralize these beliefs, their ability to typically dismiss and eliminate these thoughts is weakened (Cludius et al., 2021a; Purdon et al., 2005; Steglich-Petersen & Varga, 2022; Whiteside & Abramowitz, 2005). Moreover, previous research has also shown that the presence of erroneous beliefs about thoughts observed in individuals with OCD should be associated with a tendency to overuse maladaptive thought control strategies. Additionally, in individuals with OCD, anger suppression has been associated with a inclination toward negative thought beliefs (Liu et al., 2017; Tolin et al., 2007). In conclusion, obsessive beliefs, as a cognitive factor, and preoccupied attachment style as an emotion regulation system, can be discussed in the etiology of anger suppression. The relationships between obsessive beliefs and anxious-ambivalent attachment style have been examined in various domains in previous studies (Conrad et al., 2021; Maalouf et al., 2022; Messina et al., 2023). Considering the importance of the stated content, the existence of a research gap that clearly evaluates the relationship between the variables of this research is felt, Therefore, the current research was conducted with the aim of predicting anger suppression based on obsessive beliefs and anxious attachment style and anger suppression .

## Methods

The current research employed a correlational descriptive design with a fundamental objective. The statistical population of this study encompassed all undergraduate students from Tehran's universities in the time frame of August to October 2022. A cluster sampling method was utilized to select 320 individuals from this

population. The sample size was determined based on Kline's recommendation (2015), suggesting a ratio of 10 to 20 participants per observed variable. Consequently, 320 participants were chosen, and ultimately, after the removal of outlier data, 312 data entries were included in the final analysis.

**Inclusion and Exclusion Criteria:** Inclusion criteria for the research included student enrolment in an academic program, providing informed consent, and expressing a willingness to cooperate. Exclusion criteria consisted of participants with visual impairments (for questionnaire reading) and those who withdrew from participating in the research.

The collected data were analysed using IBM SPSS Statistics 23.

### Demographic Information Questionnaire:

Participants in this study completed a demographic information questionnaire, providing data on population variables such as age, marital status, and occupation. Additionally, they answered questions related to entry and exit criteria.

In this research, the Persian version of the Spielberger State-Trait Anger Expression Inventory (STAXI-2) was utilized. This questionnaire comprises three sections with a total of 57 items. The first section is designed to assess state anger, the second section measures trait anger, and the third section evaluates the expression and control of anger. Each item in this questionnaire is rated using a four-point Likert scale, which includes "almost never," "sometimes," "often," and "almost always" (ASGHARI et al., 2011). The items in the first section are scored using a four-point scale, including "not at all," "a little," "somewhat," and "very much." Items in the second and third sections are rated using a four-point scale, including "almost never," "sometimes," "often," and "almost always." In Iran, Khodayarifard et al. (2013) calculated the reliability and validity of this scale. The reported Cronbach's alpha ranged from 0.60 to 0.93 for all subscales, test-retest reliability was reported between 0.58 to 0.93, and the content validity of

this scale with NEO Personality Inventory facet subscales ranged from 0.48 to 0.68. In the present study, the Cronbach's alpha for this questionnaire was found to be 0.80.

The Cognitive Committee in Obsessive Beliefs developed the Obsessive Beliefs Questionnaire (OBQ-44) as a tool to assess the role of cognitive structures in the etiology and maintenance of obsessions. This questionnaire consists of 44 questions grouped into 6 subcategories, covering key domains of cognition in obsessive-compulsive disorder. The questionnaire is scored on a 7-point Likert scale, ranging from "completely agree" to "completely disagree." "The Obsessive Beliefs Questionnaire demonstrates internal consistency (Cronbach's alpha of 0.92), split-half reliability (0.94), and test-retest reliability (0.82). The validity of the questionnaire was established using the Maudsley Obsessional-Compulsive Inventory (MOCI) with a significance level of 0.82 (Group, 2001). In Iran, the reliability of the Persian version was calculated, including internal consistency reliability with a Cronbach's alpha of 0.92 and split-half reliability with a modified correlation of 0.94. Additionally, the test-retest reliability was assessed using the OBQ-44, yielding a reliability coefficient of 0.82 (Shams et al., 2004). In the present research, the Cronbach's alpha coefficient for this questionnaire was found to be 0.86.

The Experience in Close Relationships (ECR) questionnaire is a self-report tool consisting of 36 items, organized into two subscales that align with

attachment theory: "Avoidant" and "Anxious." The Avoidant subscale measures the degree of acceptance of intimacy and closeness, while the Anxious subscale assesses concerns about rejection and abandonment. Respondents rate their agreement with each item on a 7-point Likert scale, ranging from "completely agree" to "completely disagree." "The ECR questionnaire was originally developed by Brennan, Clark, and Shaver in 1998 (Brennan et al., 1998) In a study by Brennan and colleagues and a study by Seidi and colleagues in 2013, the Cronbach's alpha reliability coefficients for the Avoidant subscale were reported as 0.89 and 0.94, respectively. For the Anxious subscale, the Cronbach's alpha coefficients were reported as 0.91 and 0.85 in these studies. Additionally, in studies conducted by Godbout and colleagues in 2009 and Alonso-Arbiol and colleagues, the questionnaire's factor structure was confirmed, providing evidence of its validity (Godbout et al., 2009). In the present research, the Cronbach's alpha coefficient for this questionnaire was found to be 0.89.

### Results

This table presents the demographic indices percentages and frequency distribution findings. The data shows that out of the total participants, 51 individuals (3.16%) were male. The average age of the participants was 25.46 years, with a standard deviation of 6.77 (participants' ages ranged from 18 to 54 years). table 1.

**Table 1.** Demographic population variables

Demographic population variables		F	%
Sex	Female	261	7.83
	Male	51	3.16
Marital status	Single	244	2.78
	Married	68	8.21
Employment status	Employed	112	9.35
	Unemployed	200	1.64

The examination of the correlation index shows that anger suppression has a significant positive relationship with the construct of preoccupied attachment style ( $p < 0.01$ ) and with the construct

of obsessive beliefs ( $p < 0.01$ ) and also there is a significant positive relationship between preoccupied attachment style and obsessive beliefs ( $p < 0.01$ ), Table 2.

**Table 2.** Mean, standard deviation and correlation coefficients of research variables

		Standard deviation	Mean	1	2	3
1	Anger suppression	19.69	70.29	1		
2	Preoccupied attachment style	8.40	21.89	0.54**	1	
3	Obsessive beliefs	3.65	18.64	0.31**	0.36**	1

The results of step-by-step regression analysis for predicting anger suppression through scores of preoccupied attachment style and obsessive beliefs are presented. As can be seen, both scales of preoccupied attachment style and obsessive beliefs are able to significantly predict anger suppression. In the first step, the preoccupied attachment style scale explained 29.3% of the variance of anger

suppression ( $P < 0.001$ ). In the second step, the scale of obsessive beliefs ( $P < 0.001$ ) was added to the model and it increased the explained variance to 30.9% and actually increased the explanation coefficient by 1.6%. Overall, these results showed that preoccupied attachment style and obsessive beliefs are direct predictors of anger suppression, Table 2.

**Table 3.** The results of stepwise regression analysis to predict anger suppression through preoccupied attachment style and obsessive beliefs

Step	Variable	R	R Square	Adjusted R Square	P	t	$\beta$	SE	B
1	preoccupied attachment style	.541 <sup>a</sup>	.293	.291	0.001	11.32	0.54	0.11	1.27
2	obsessive beliefs	.556 <sup>b</sup>	.309	.305	0.001	2.63	0.13	0.27	0.72

### Discussion

The results indicate that there is a significant relationship between preoccupied attachment style and obsessive beliefs with anger suppression. These findings are consistent with previous research (Cludius et al., 2021b; Conrad et al., 2021; Jessup et al., 2019; Mikulincer & Shaver, 2019). In these researches and in confirming the results of our research, it was shown that individuals with a preoccupied attachment style may be more prone to suppressing anger due to their heightened emotional needs and dependency on others, which often leads to difficulties in managing their emotions independently. In explaining the relationship with a significant correlation between preoccupied attachment style and anger suppression, it can be acknowledged that an influential factor in the context of anger

suppression is the attachment style. Early attachment is intertwined with caregiver engagement and emotional resonance. As a result, it intensifies the child's mental state and emotional self-regulation. Consistent reflection and responsiveness to the child's emotional state contribute to secure attachment and the child's ability to regulate their emotions (Conrad et al., 2021; Liu & Ma, 2019). According to previous research and in connection with our results, it has been shown that children with a preoccupied attachment style are likely to have parents who do not assist them in regulating their distress effectively. Negative emotions in children often serve to fulfil their attachment needs and indicate a desire to remain close to their parents. Furthermore, it should be acknowledged that self-confidence, as one of the internal foundations of an



individual with secure attachment, empowers the individual to handle stressful situations with greater skill (Brodie et al., 2019; Conrad et al., 2021). According to previous research and in connection with our results, it has been shown that secure individual's trust in others, which complements self-confidence, also assists them in seeking help and support from others. One of the main characteristics of individuals with a preoccupied attachment style (anxious) is doubt, conflict, hostility, insecurity, confusion, and ambivalence. These traits put them at a high risk of involvement in conflicts, contradictions, insecurity, and abnormal behaviour in stressful situations and social relationships. Also, anxiously insecurely attached children use emotion regulation strategies such as turning attention away from the caregiver or suppressing the aroused emotions. Therefore, the increase in anger suppression found in our study can be indicative of the early inconsistent attachment experience with caregivers (Cludius et al., 2017; Pakoofteh & Akhlaghi, 2018).

Furthermore, the results of the present study have shown that obsessive beliefs can significantly predict anger suppression. These findings are in line with Radomsky and et al(2007) and Cludius and et al(2021) that individuals with OCD reported higher anger and anger suppression, the reason for this is that perfectionism and intolerance of uncertainty in people are related to suppression of anger, because people with such beliefs make a double effort to reach a goal, but they consider the failure to achieve it either from their own inadequacy or from others, so it makes them angry, but because of the high responsibility to prevent harm to others, they suppress their anger(Cludius et al., 2021b; Radomsky et al., 2007). In order to explain this finding, it can be stated that Obsessive beliefs are inefficient beliefs that influence how individuals respond to intrusive thoughts, so people with obsessive beliefs think that they should prevent the harm caused by disturbing thoughts, which in fact, this assessment is due to the high sense of responsibility of these people, but they have failed in implementing it, which leads to

anger in them. (Pettigrew, 2022).Because Non-adaptive coping strategies like suppression prevent the understanding of negative beliefs about emotions ,so it can leads to the development of psychological pathology or exacerbation of psychological pathology, and because of this damage, weak emotional intelligence and greater fear of emotions in these individuals lead to less acceptance of negative emotions, which can result in anger suppression. This is because suppression acts as a neutralizer for their thoughts and beliefs, In fact, they control their beliefs through anger suppression (Ekici et al., 2022; Hacıomeroglu, 2020; Jessup et al., 2019; Purdon et al., 2005). In other words, individuals suppress their anger to attribute their failure in thought and beliefs control to internal factors such as cognitive weakness, so they don't evaluate obsessive beliefs as dangerous, because They tend to create less psychological pathology regarding their beliefs about emotions (Ekici et al., 2022; Pettigrew, 2022; Steglich-Petersen & Varga, 2022). In general, it can be acknowledged that the strategies used by these individuals are likely associated with the content of their thoughts, In other words are considered as a neutralizing function. As a result, they resort to suppressing anger to get rid of obsessive beliefs or to transform their beliefs into a normal belief (Purdon et al., 2007).

This study had certain limitations that are worth mentioning in this section. The study followed a cross-sectional design, which means it doesn't allow for causal interpretations. It is recommended that future research explores the causal roles of these psychological constructs in the symptoms of obsessive-compulsive disorder by conducting longitudinal studies. Additionally, this study relied on self-report measures, which may reduce the precision of measurements. It is suggested that future studies, when necessary for more accuracy, incorporate other methods such as interviews. Furthermore, this study was conducted on a non-clinical sample, specifically undergraduate students. This limitation restricts the generalizability of the findings to other groups and

contexts, and interpretations should be made with caution when applying these results to clinical populations or different demographic groups.

### Conclusion

In summary, individuals with a preoccupied attachment style and those with higher scores in obsessive beliefs tend to exhibit higher levels of anger suppression. Preoccupied attachment style and obsessive beliefs are significant predictors of anger suppression. Based on existing scientific studies, it can be concluded that individuals with a preoccupied attachment style may be more inclined to suppress their anger. These individuals might suppress their anger due to reasons such as the fear of rejection or losing loved ones. Additionally, individuals with obsessive beliefs may also suppress their anger for reasons like excessive concerns or fear of undesirable consequences. These findings indicate that both beliefs and attachment styles can have a significant impact on how individuals manage their anger.

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Considering that this article was not an intervention, it does not have a code of ethics.

### Conflict of interest

The authors declare no conflict of interest.

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### Ethical considerations

All study subjects gave informed consent to participate in the study

### Code of ethics

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### Authors' contribution

M. A, was involved with methodology; M.A did data collection; M. A, Z. M did the writing; Z, M, M. A, were involved with the original draft; M. A did data analysis; M.A did the supervision; Z. M, M. A Formal Analysis, Writing – Review and Editing, Supervision. All the authors read and

approved the final manuscript and were responsible for any questions related to the article.

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