

## Research Paper

### Attachment Styles and Depression Symptoms: The Mediating Role of Rumination



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### ABSTRACT

**Objectives** The aim of this study is to investigate the mediating role of rumination in relation to the attachment styles and depression symptoms.

**Methods** This is an ex post facto study with causal design. Around 175 students of Iranian University answered to Beck Depression Inventory-II (BDI-II), Ruminative Responses Scale (RRS), and the Adult Attachment Questionnaire (AAQ), which were analyzed using variance analysis, regression, and mediation analysis.

**Results** The study results showed that attachment orientation is related to rumination ( $P < 0.001$ ) and depression ( $P < 0.0005$ ). Specifically, avoidance index of attachment system is strongly associated with brooding ( $P < 0.002$ ). Our results also supported the mediating role of brooding in between avoidance index and depression symptoms ( $P < 0.0005$ ).

**Conclusion** Brooding mediate in between avoidance index and depression symptoms. The study findings also emphasize the role of caregiver-child relationship in the formation of rumination and depression, and recommend implementing preventive programs in order to restrain the development of such dysfunctional construct.

#### Key words:

Attachment style, Depression, Dimensional model of attachment, Rumination

### Extended Abstract

#### 1. Introduction

The differences in “Working Models of Attachment”, assumed as the underlying basis of the differences in attachment styles, have a substantial role in person’s wellbeing. They lead people to diverse methods of emotion regulation against stressful and challenging life experiences [1]. Initial maladaptive parent-child interactions can play a negative role in the pattern of person’s future expectations and interpersonal relationships [2]. Rumina-

tion, a pathogenic coping style, is one of the constructs that is assumed as the connector of attachment styles to depression. As per the published studies on attachment theory, dysfunctional rumination is associated with attachment’s orientation. While the secure attachment is associated with regulation and adjustment of emotional experiences [3], anxious (e.g. being amazed), and avoidant attachments (e.g. emotional distance) are associated with psychological distress and tendency to rumination [4].

Although several studies have investigated the relationships between attachment, rumination, and depression, there is some ambiguity in it. Soffrey and Ehrenberg [5]

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concluded that anxious people are associated with higher level of rumination. On the other hand, Pearson et al [6] noticed that brooding has strong relation with elevated sensitivity to rejection, but is not associated with anxious attachment style. Therefore, further investigation is required to clarify the role of each index of attachment in relation to brooding. In addition to explaining the mediating role of rumination and investigating the anxious and avoidant indexes in relation to depression, this study also emphasizes on the dimensional model of attachment. Thus, the results of both categorical and dimensional models were compared.

## 2. Methods

This Ex Post Facto study with causal research design was conducted to investigate the relationship between attachment styles and development of rumination as the mediator of depression symptoms. Statistical population of the study included students of Kharazmi University, Tehran University, and Alborz University of medicine who were in their second semester in 2016. The sample size included 175 University students (74 male and 101 female) within the age range of 18 to 35 years ( $M=21$ ,  $SD=2.75$ ) from the faculty of technology, science, literature, and medicine by using available sampling method. Subjects answered to the questions of Beck Depression Inventory-II (BDI-II), Ruminative Responses Scale (RRS), and Adult Attachment Questionnaire (AAQ), which were later analyzed using variance

analysis, regression, and mediation analysis. Regarding the categorical and dimensional models of attachment, the data were analyzed in two separate parts. Rumination and depression were analyzed using the three categorical (avoidant, anxious, secure) models, and the dimensional model.

## 3. Results

In the categorical model, depression scores of avoidant attached people were higher than both anxious attached people ( $P<0.01$ ), and secure attached people ( $P<0.0005$ ). Also, anxious people indicated higher depression scores than secure people ( $P<0.006$ ). Moreover, avoidant ( $P<0.0005$ ), and anxious people ( $P<0.021$ ) have higher scores than secure people in total rumination. But in brooding ( $P<0.001$ ) and reflection ( $P<0.012$ ) subscales, it was just the avoidant people who have higher scores compared to secure attached people.

In the dimensional model, depression scores of anxious-avoidant group were higher than those of both the anxious ( $P<0.038$ ) and secure ( $P<0.0005$ ) groups. Avoidant group indicated that its depression scores are higher than that of the secure group ( $P<0.001$ ). Anxious-avoidant group had higher total rumination scores than both anxious ( $P<0.026$ ), and secure group ( $P<0.0005$ ). Avoidant group also had higher score than secure group ( $P<0.018$ ). In brooding subscale, anxious-avoidant ( $P<0.001$ ) and avoidant ( $P<0.028$ ) groups showed higher scores than secure group, but in re-

Table 1. Results of mediation analyses

	Independent Variable (IV)	Mediating Variable (M)	Dependent Variable (DV)	Effect of IV on M (a)	Effect of M on DV (b)	Direct Effects Before controlling for M (c)	Direct Effects After Controlling for M (c')	Indirect Effect (a*b)	Total Effects (c)	
<b>Avoidant and Anxious Attached Subjects</b>										
Categorical model	1	Avoidant index	Brooding	Depression score	0.345 (0.002)	0.50 (0.000)	0.425 (0.000)	0.254 (0.011)	0.172	0.426
<b>Avoidant, Anxious, and Avoidant-Anxious Subjects</b>										
Dimensional model	2	Avoidant index	Brooding	Depression score	0.184 (0.041)	0.538 (0.000)	0.339 (0.000)	0.240 (0.001)	0.099	0.339
	3	Avoidant index	Brooding	Depression score	0.270 (0.011)	0.574 (0.000)	0.290 (0.006)	0.135 (0.127)	0.155	0.445
<b>Secure and Insecure Subjects</b>										
Whole subjects	4	Avoidant index	Brooding	Depression score	0.291 (0.000)	0.460 (0.000)	0.409 (0.000)	0.238 (0.000)	0.171	0.409
			Reflection	Depression score	0.221 (0.003)	0.167 (0.010)				

flection anxious-avoidant group scored higher than secure group ( $P < 0.004$ ).

According to definition of insecure attachment in three categorical model, brooding had partial mediation role in relation to avoidance index and depression symptoms ( $P < 0.0005$ ). The same result was shown in dimensional model (analyses 2 and 3) (Table 1), but limiting sample to avoidant and avoidant-anxious group (analyze 3) caused full mediation and higher total effect ( $\beta = 0.445$ ), and the results of mediation analyses are shown in Table 1.

#### 4. Conclusion

The present study concludes that there is an association between the avoidance index and depression symptoms of attachment style, and it is stronger than anxiety. There is a significant relationship between the indexes of attachment and rumination along with its subscales, but it is stronger with brooding. On the other hand, rumination and its subscales have a close relationship with depression symptoms; however, this relation is stronger with brooding.

Generally, activation of avoidance index in attachment system plays a crucial role in the development of rumination and depression symptoms. Our result showed that people having negative models, or whose avoidance index of attachment style is activated, tend to use a passive coping strategy called rumination that facilitates emerging depression symptoms.

Because of the inseparability of two groups (anxious and avoidant-anxious) in three categorical model of attachment, the results are not able to show the relationship between avoidant-anxious group with rumination and depression. In most of the analyses using the three categorical models, the relation of anxious attached people with depression and rumination were statistically significant (except the analyses using dimensional model). However, these significant relations are just because of the subscription between anxious group in categorical model and that of avoidant-anxious group in the dimensional model, and they are not distinguishable in the categorical model.

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#### Conflict of Interest

The authors declared that they had no conflicts of interest with respect to their authorship or the publication of this article.