

# Mindfulness Moderates the Influence of Rumination on Depression

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## Abstract

Rumination and mindfulness both can be thought of as ways of regulating emotions. However, studies have shown that rumination acts as a risk factor for mood disorders while mindfulness acts as a buffer against mood disorders. We conducted an online survey to study the moderating effect of trait mindfulness on the relationship between rumination and depressive symptoms. As predicted, we found that higher levels of mindfulness decreases the negative impact rumination has on depression. We suggest that individuals with higher levels of mindfulness may be able to attend to their negative experiences without exacerbating negative affect.

## Introduction

It has been suggested that dysfunctional cognitive processes act as vulnerability factors for emotional disorders (Beck, 1979). One such factor is rumination, which is a way of paying attention to experiences by repeatedly thinking of negative thoughts or events (Nolen-Hoeksema, 1991). Rumination has been associated with vulnerability to mood disorders (Joormann & Gotlib, 2008) as well as the duration (Nolen-Hoeksema, 1991) and severity of depressive symptoms (Just & Alloy, 1997).

In contrast, mindfulness is a way of paying attention to the present moment while being nonjudgmental of the experience (Kabat-Zinn, 1990). A higher level of trait mindfulness, that is naturally occurring mindfulness, has been found to decrease stress on perceived depression (Branstrom, Duncan & Moskowitz, 2011), predict less lability in emotions and less reactivity to emotional experiences (Hill & Updegraff, 2012). Rumination and mindfulness both can be thought of as ways to manage emotions which may have different impacts on psychological health. Rumination is a maladaptive strategy of emotion regulation which results in worsening of negative emotions (Nolen-Hoeksema, 1991). Mindfulness, is an adaptive way to pay attention to negative events by being more accepting and nonreactive (Bishop et al., 2004). It has been indicated through factor analysis that the Rumination Styles Questionnaire includes both maladaptive and relatively less maladaptive components (Schoofs, Hermans & Raes, 2010). Therefore, mindfulness and rumination styles are not necessarily opposing constructs. Individuals with higher levels of trait mindfulness may attend to negative events much like those who are high in rumination, though to different ends.

The current study focused on investigating the interaction between trait mindfulness and rumination in predicting depression. It was hypothesized that rumination and mindfulness levels would interact to predict depressive symptoms, such that a high level of mindfulness would moderate the influence of rumination by reducing depressive symptoms.

## Method

Six hundred and sixteen undergraduates participated in an online survey. Of those who reported, 89% were female participants and the average age was 19 years ( $SD = 2.58$ ). Participants completed the Beck's Depression Inventory (BDI) as a measure of depression, the Ruminative Response Scale (RRS) as a measure of rumination styles and the Five Facet Mindfulness Questionnaire (FFMQ) as a measure of trait mindfulness.

## Results

A linear regression was performed in which the BDI scores were predicted from the RRS scores, the FFMQ scores and their interaction. All predictor variables were centered. The overall model, the RRS, the FFMQ, and their interaction were significant predictors of BDI scores (see Table 1). At low levels of the RRS (-1  $SD$ ), the mean scores of BDI were 2.10, 2.25 and 2.41 at low, medium and high levels of FFMQ respectively. At high levels of RRS (+1  $SD$ ), the mean scores of BDI were 15.05, 11.31 and 7.58 at low, medium and high levels of FFMQ respectively. A simple slopes analysis indicated that the prediction of BDI scores by the RRS was moderated at low ( $t = 17.140, p < 0.01$ ), medium ( $t = 12.301, p < 0.01$ ) and high ( $t = 5.178, p < 0.01$ ) levels of FFMQ (Figure 1).

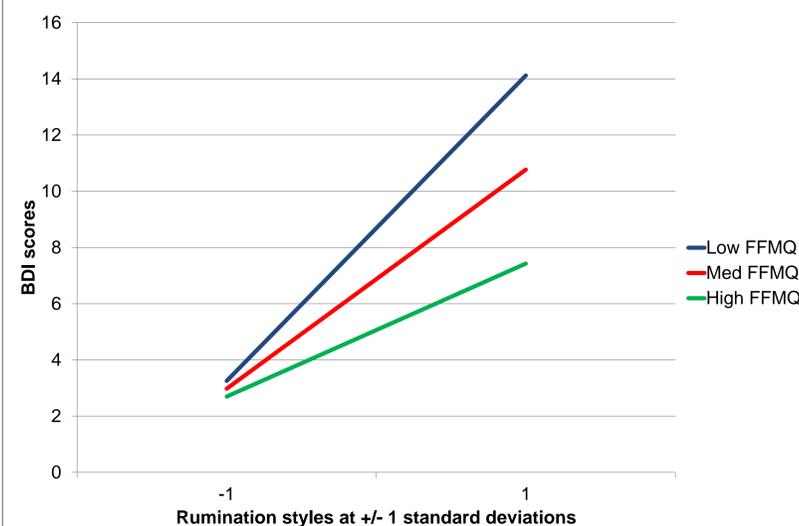


Figure 1. The moderating effect of mindfulness (FFMQ) on the relationship between rumination (RRS) and depression (BDI).

Table 1.  
Results of linear regressions.

Measures	$t$	$p$	$\beta$	$F$	$df$	$p$	$\Delta R^2$
Overall model	-	-	-	258.932	612	.000*	.559
RRS	15.699	.000*	.531	-	-	-	-
FFMQ	-6.494	.000*	-.210	-	-	-	-
RRS*FFMQ	-7.802	.000*	-.226	-	-	-	-

Notes: The dependent variable for all regressions was the BDI score.

\*  $p < 0.001$

## Conclusion

- Moderate and high levels of mindfulness help to lessen the impact that high levels of rumination have on depression.
- Rumination and mindfulness may not be completely separate constructs and therefore, may have some overlapping characteristics.
- Both rumination and mindfulness are ways of attending to emotions and thoughts. However, naturally mindful individuals may not get caught up in their negative experiences in the same way that individuals who ruminate do.
- In a therapeutic setting, it may be possible to take advantage of a client's natural tendencies to think mindfully about their experiences or to develop exercises that incorporate mindfulness into one's treatment approach.

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