Supplemental Analysis

The Effect of a Brief Mindfulness Intervention on Negative Affect During a Sustained Attention Task: Is Emotion Regulation a Mechanism of Action

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1. Descriptive Statistics for all Outcome Variables

Table 1.

Descriptive Statistics for all Outcome Variables

Measures Mean (SD)	**Control Condition** ***n = 107***	**Mindfulness Condition** ***n = 84***	**Total** ***N = 191***
Baseline Measures			
Trait Mindfulness (FFMQ)	76.75 (10.74)	75.92 (11.32)	76.38 (10.98)
Baseline State Difficulties with Emotion Regulation (Nonacceptance)	11.41 (6.02)	12.50 (6.78)	11.89 (6.37)
Baseline State Difficulties with Emotion Regulation (Modulate)	12.47 (5.65)	13.82 (6.62)	13.06 (6.12)
Baseline State Difficulties with Emotion Regulation (Combined Nonacceptance and Modulate)	23.88 (10.64)	26.32 (12.12)	24.95 (11.35)
Baseline Negative Affect (SDQ)	12.14 (8.25)	14.01 (10.91)	12.96 (9.53)
Post-Intervention Self-Report Measures			
Post-Intervention Negative Affect	9.82 (8.64)	6.42 (8.01)	8.32 (8.52)
State Difficulties with Emotion Regulation (Nonacceptance) Post-5 minutes of CPT	11.24 (5.94)	11.08 (5.73)	11.17 (5.84)
State Difficulties with Emotion Regulation (Modulate) Post-5 minutes of CPT	11.77 (5.23)	12.17 (6.36)	11.94 (5.74)
State Difficulties with Emotion Regulation (Combined Nonacceptance and Modulate) Post-5 minutes of CPT (Post-block One)	23.01 (10.03)	23.25 (11.24)	23.12 (10.55)
Negative Affect Post-10 minutes of CPT (Post-block Two)	12.50 (10.67)	10.05 (10.70)	11.42 (10.72)
Negative Affect Post-15 minutes of CPT (Post-block Three)	13.56 (11.62)	11.02 (11.04)	12.45 (11.41)

Negative Affect Post-20 minutes of CPT (Post-block Four)	13.39 (12.55)	11.56 (12.09)	12.59 (12.35)
CPT Performance			
Commission Errors Block One	8.54 (4.08)	7.93 (3.90)	8.27 (4.01)
Omission Errors Block One	2.58 (4.06)	3.01 (5.83)	2.77 (4.91)
HRT SD Block One	104.91 (50.54)	100.10 (43.56)	102.80 (47.53)
HRT Block One	357.04 (61.18)	365.65 (65.45)	360.82 (63.07)
Commission Errors Block Two	9.25 (4.49)	7.68 (4.23)	8.56 (4.44)
Omission Errors Block Two	3.32 (5.35)	3.33 (7.35)	3.32 (6.29)
HRT SD Block Two	113.12 (69.95)	108.15 (46.14)	110.93 (60.55)
HRT Block Two	360.48 (80.43)	367.33 (79.23)	363.49 (79.76)
Commission Errors Block Three	9.42 (5.08)	8.73 (4.49)	9.12 (4.83)
Omission Errors Block Three	5.82 (10.62)	3.71 (5.93)	4.90 (8.91)
HRT SD Block Three	135.73 (81.75)	121.19 (54.66)	129.34 (71.32)
HRT Block Three	371.83 (86.82)	367.67 (83.68)	370.00 (85.25)
Commission Errors Block Four	9.78 (4.39)	8.38 (4.90)	9.16 (4.66)
Omission Errors Block Four	7.42 (12.83)	4.64 (6.40)	6.20 (10.57)
HRT SD Block Four	144.04 (84.75)	130.34 (67.40)	138.02 (77.70)
HRT Block Four	373.11 (86.14)	374.07 (99.94)	373.53 (92.21)

2. The Effect of Condition on Nonacceptance, Non-modulation and Combined Nonacceptance and Non-modulation.

Three linear mixed-effects models were performed. The main effect and interaction between condition and time, and trait mindfulness were entered as predictors. Trait mindfulness was centered. Each model had either a combined S-DERS nonacceptance and non-modulation

subscale score, a nonacceptance subscale score, or a non-modulation subscale score entered as the dependent variable, with random intercepts for participants.

Table 2.

Main Effect of Condition: Type III Analysis of Variance Table with Satterthwaite's Method

	Results
Nonacceptance	$F(1, 188) = 0.13$, p = .723, $\eta p^2 = .00$
Non-modulation	$F(1, 188) = 0.90$, $p = .345$, $\eta p^2 = .00$
Combined	$F(1, 188) = 0.54$, $p = .463$, $\eta p^2 = .00$

Table 3.

Main Effect of Time: Type III Analysis of Variance Table with Satterthwaite's Method

	Results
Nonacceptance	$F(1, 189) = 4.70$, $p = .031$, $\eta p^2 = .02$
Non-modulation	$F(1, 189) = 15.38$, $p < .001$, $\eta p^2 = .08$
Combined	$F(1, 189) = 11.73$, $p < .001$, $\eta p^2 = .06$

Table 4.

Main Effect of Time X Condition Interaction: Type III Analysis of Variance Table with Satterthwaite's Method

	Results
Nonacceptance	$F(1, 189) = 2.92$, $p = .089$, $\eta p^2 = .02$
Non-modulation	$F(1, 189) = 2.52$, $p = .114$, $\eta p^2 = .01$
Combined	$F(1, 189) = 3.66$, $p = .057$, $\eta p^2 = .02$

Table 5.

Main Effect of Trait Mindfulness: Type III Analysis of Variance Table with Satterthwaite's Method

	Results
Nonacceptance	$F(1, 188) = 67.24$, $p < .001$, $\eta p^2 = .26$
Non-modulation	$F(1, 188) = 56.10$, $p < .001$, $\eta p^2 = .23$
Combined	$F(1, 188) = 77.73$, $p < .001$, $\eta p^2 = .29$

3. Repeated Main Analyses with Mindfulness Experience Variable Included

Values that changed from the primary analyses included in the manuscript are highlighted in yellow.

3.1. The Effect of Condition on State Emotional Nonacceptance and Non-modulation During a Sustained Attention Task

We hypothesized that the BMBI condition would experience less state emotional nonacceptance and non-modulation during the first, post-intervention, block of the CPT relative to the control condition. To test the hypothesis, a linear mixed-effects model was estimated using the lme4, lmerTest, and emmeans packages in R (Bates et al., 2015; Kuznetsova et al., 2017; Lenth & Piaskowski, 2026). The linear mixed model was fit using Restricted Residual Maximum Likelihood, and t-tests for pairwise comparisons were conducted using Kenward-Roger's method. These model specifications were used for all subsequent linear mixed-effects models. The interaction between condition and time, centered trait mindfulness, and mindfulness experience were entered as predictors, with random intercepts for participant ID. A combined S-DERS nonacceptance and non-modulation subscale score was entered as the dependent variable. Normality assumptions were assessed by visual analysis of the Q-Q plot, and were deemed acceptable. There was some heteroscedasticity, as evidenced by a residuals v. fitted plot, that was not of major concern given the large sample size and robust estimation methods. Outliers were assessed using Cook's Distance with a threshold of $> 4/n$ on a participant, rather than on a case-by-case basis. Ten outliers were detected.

Controlling for mindfulness experience, trait mindfulness and condition, there was a significant main effect of time, $F(1, 189) = 11.73$, $p < .001$, $\eta p^2 = .06$, such that state emotional nonacceptance and non-modulation were lower post-block one of the CPT. Controlling for mindfulness experience, time and trait mindfulness, there was no main effect of condition *F(*1,

187) = 0.39, p = .53, ηp² = .002; though the interaction between condition and time was approaching significance, $F(1, 189) = 3.66$, $p = .057$, ηp² = .02. Removal of outliers led to the interaction effect becoming significant, $F(1,179) = 4.04$, $p = .050$, ηp² = .02. Controlling for time, condition and mindfulness experience, trait mindfulness was a significant covariate, $F(1, 187) = 78.40$, $p < .001$, ηp² = .30. Controlling for time, condition, and trait mindfulness, mindfulness experience was not a significant covariate, F(1, 187) = 3.32, p = .070, ηp² = .02

3.2. The Effect of Condition on Negative Affect Immediately Following the Intervention

We hypothesized that the BMBI condition would experience less negative affect after the intervention, but before beginning the CPT, relative to the control condition. A linear mixed-effect model was estimated with the interaction between condition and time, mindfulness experience, and centered trait mindfulness entered as predictors. Negative affect (SDQ score) was entered as the dependent variable. Normality assumptions were assessed by visual analysis of Q-Q plot, and were deemed acceptable. There was some heteroscedasticity, as evidenced by a residuals v. fitted plot, that was not of major concern given the robustness of the model and large sample size. Outliers were assessed using Cook's Distance with a threshold of $> 4/n$ on a participant, rather than on a case-by-case basis. Eleven outliers were detected and did not change the results significantly; results are reported with outliers included.

Controlling for mindfulness experience, trait mindfulness and condition, there was a significant main effect of time, $F(1, 189) = 75.96$, $p < .001$, ηp² = .29, such that negative affect decreased from baseline to post-intervention. Controlling for mindfulness experience, time and trait mindfulness, there was no significant main effect of condition, $F(1, 187) = 0.88$, $p = .35$, ηp² = .01.

There was a significant Time X Condition interaction, $F(1, 189) = 21.53$, $p < .001$, $\eta p^2 = .10$. Controlling for mindfulness experience, condition and time, trait mindfulness was a significant covariate, $F(1, 187) = 30.24$, $p < .001$, $\eta p^2 = .14$. Controlling for condition, time and trait mindfulness, mindfulness experience was not a significant covariate, $F(1, 187) = 0.01$, $p = .92$, $\eta p^2 = .00$.

3.3. The Effect of Condition on the Slope of Negative Affect During a Sustained Attention Task

We hypothesized that the mindfulness condition would experience a more gradual change in negative affect over the course of the CPT. Negative affect was measured at three time points during the CPT: after 10 minutes (i.e., after block 2), 15 minutes (i.e., after block 3), and after 20 minutes (i.e., after block 4).

A latent growth curve model was used to test our hypothesis, and the lavaan package in R was used to estimate the model (Rosseel et al., 2025). Robust maximum likelihood was the estimation method. The intercept factor was set to 1, and the slope factor was created by fixing the time points to 0 (after block 2), 1 (after block 3), and 2 (after block 4). The intercept and slope of negative affect were regressed onto mindfulness experience, condition and trait mindfulness, which was included as a covariate. The model fit was good, with robust TLI = 1.08, robust CFI = 1.00, robust RMSEA = .00 (90% CI: .00, .11), and SRMR = .010.

Controlling for mindfulness experience and trait mindfulness, the effect of condition on the latent intercept of negative affect was significant, such that those in the mindfulness condition had an intercept that was 2.95 points lower than those in the control condition, $B = -2.95$, SE = 1.44, z = −2.05, $p = .041$. Condition did not significantly predict the latent slope of negative affect, B = 0.34, SE = 0.73, z = 0.47, $p = .64$. Controlling for condition and mindfulness

experience, trait mindfulness was a significant predictor of the latent intercept of negative affect, $B = -0.40$, SE = 0.07, z = −6.05, p < .001, but not the latent slope of negative affect, $B = 0.03$, SE = 0.04, z = 0.68, $p = .50$. When controlling for condition and trait mindfulness, mindfulness experience was a significant predictor of the latent intercept of negative affect, such that higher mindfulness experience was associated with a greater latent intercept of negative affect, $B = 1.48$, SE = 0.61, z = 2.43, $p = .015$. Mindfulness experience did not significantly predict the slope of negative affect, $B = -0.39$, SE = 0.32, z = −1.20, $p = .23$.

3.4. The Effect of Condition on Sustained Attention, Mediated by State Emotional Nonacceptance and Non-Modulation and Negative Affect

3.4.1. The Effect of Condition on Commission Errors

To test the effect of condition on commission errors, a linear mixed-effects model was estimated, with random intercepts specified for participants. The main effects and interaction between condition and time (four blocks of the CPT), centered trait mindfulness and mindfulness experience were entered as predictors. The mean number of commission errors was entered as the dependent variable. There were no violations of normality or heteroscedasticity based on visual analysis of a Q-Q Plot and fitted v. residuals, respectively. Outliers were assessed using Cook's Distance with a threshold of $> 4/n$ on a participant, rather than on a case-by-case basis. No outliers were detected.

Controlling for condition, mindfulness experience and trait mindfulness, there was a significant main effect of time, $F(3, 567) = 4.71$, $p = .003$, $\eta p^2 = .02$, such that commission errors were higher in block three, ($B = 0.88$, $SE = 0.37$, $t = 2.37$, $p = .018$) and block four of the CPT, ($B = 1.23$, $SE = 0.37$, $t = 3.33$, $p < .001$) compared to block one. Controlling for time, mindfulness experience and trait mindfulness, there was a significant main effect of condition,

$F(1, 187) = 4.09$, $p = .044$, $\eta p^2 = .02$, such that the mindfulness condition had fewer commission errors overall. The Condition X Time interaction was not significant, $F(3, 567) = 1.51$, $p = .211$, $\eta p^2 = .01$, and therefore the changes in commission errors did not differ significantly across conditions. Controlling for mindfulness experience, condition and time, trait mindfulness was a significant covariate, $F(1, 187) = 4.46$, $p = .036$, $\eta p^2 = .02$, whereas controlling for condition, time and trait mindfulness, mindfulness experience was not, $F(1, 187) = 0.02$, $p = .891$, $\eta p^2 = .00$.

3.4.2. The Mediating Effect of State Emotional Nonacceptance and Non-modulation and Negative Affect on the Relationship between Condition and Commission Errors

Structural Model Results for Model One: Negative Affect (After Block Two) and Commission Errors (Block Three). Model one was fit using robust maximum likelihood estimation. The model fit was adequate, with robust TLI = .96, robust CFI = .99, robust RMSEA = .053, and SRMR = .041.

Table 6.

Structural Model Results for Model One: Negative Affect (After Block Two) and Commission Errors (Block Three)

Path	Estimate	SE	Z	*p*	95% CI	Standardized Estimate
Condition → Non-acceptance/Nonmodulation	−0.332	1.332	−0.249	0.803	[−2.943, 2.280]	−0.016
Trait Mindfulness → Non-acceptance/Nonmodulation	−0.530	0.064	−8.336	< .001	[−0.655, −0.406]	−0.552
Mindfulness Experience → Non-acceptance/Nonmodulation	1.316	0.521	2.525	0.012	[0.295, 2.338]	0.147
Non-acceptance/Nonmodulation → Negative Affect (After block 2)	0.691	0.062	11.174	< .001	[0.570, 0.813]	0.68

Condition → Negative Affect (After block 2)	−2.623	1.129	−2.323	0.02	[−4.837, −0.410]	−0.122
Negative Affect (After block 2) → Commission Errors (Block 3)	0.042	0.032	1.292	0.196	[−0.022, 0.106]	0.093
Condition → Commission Errors (Block 3)	−0.591	0.704	−0.840	0.401	[−1.971, 0.788]	−0.061

Note. N = 191, SE = robust standard error.

Structural Model Results for Model Two: Negative Affect (After Block Three) and Commission Errors (Block Four). Model two was fit using robust maximum likelihood estimation. The model fit was adequate, with robust TLI = .96, robust CFI = .99, robust RMSEA = .051, and SRMR = .031.

Table 7.

Structural Model Results from Model Two: Negative Affect (After Block Three) and Commission Errors (Block Four)

Path	Estimate	SE	Z	*p*	95% CI	Standardized Estimate
Condition → Non-acceptance/Nonmodulation	−0.332	1.332	−0.249	0.803	[−2.943, 2.280]	−0.016
Trait Mindfulness → Non-acceptance/Nonmodulation	−0.530	0.064	−8.336	< .001	[−0.655, −0.406]	−0.552
Mindfulness Experience → Non-acceptance/Nonmodulation	1.316	0.521	2.525	0.012	[0.295, 2.338]	0.147
Nonacceptance/Non-modulation → Negative Affect (After block 3)	0.583	0.071	8.231	< .001	[0.444, 0.722]	0.539
Condition → Negative Affect (After block 3)	−2.677	1.38	−1.940	0.052	[−5.383, 0.028]	−0.117
Negative Affect (After block 3)→ Commission errors (Block 4)	0.055	0.031	1.771	0.077	[−0.006, 0.116]	0.135
Condition → Commission errors (Block 4)	−1.255	0.686	−1.829	0.067	[−2.600, 0.090]	−0.134

Note. N = 191, SE = robust standard error.

3.4.3. The Effect of Condition on HRT SD

To test the effect of condition on HRT SD, a linear mixed-effects model was estimated, with random intercepts specified for participants. The main effects and interaction between condition and time (four blocks of the CPT), mindfulness experience and centered trait mindfulness were entered as predictors. The standard deviation of reaction time for correct hits was entered as the dependent variable. There were no violations of normality based on visual analysis of a Q-Q Plot. There was evidence of heteroscedasticity based on visual analysis of the fitted v. residual plot, but this was not of concern given the robust estimation methods and large sample size. Outliers were assessed using Cook's Distance with a threshold of > 4/*n* on a participant, rather than on a case-by-case basis. Based on this criterion, nine outliers were detected. However, their removal did not meaningfully change the results, so they were retained.

Controlling for condition, trait mindfulness and mindfulness experience, there was a significant main effect of time, $F(3, 567) = 31.16$, $p < .001$, $\eta p^2 = .14$, such that HRT SD was higher in block three, $B = 30.82$, $SE = 5.35$, $t(567) = 5.76$, $p < .001$, and block four of the CPT, $B = 39.13$, SE = 5.35, $t(567) = 7.31$, $p < .001$) compared to block one. Controlling for time, trait mindfulness and mindfulness experience, there was no significant main effect of condition, $F(1, 187) = 1.87$, $p = .173$, $\eta p^2 = .01$, or Condition X Time interaction, $F(3, 567) = 0.88$, $p = .453$, $\eta p^2 = .00$. Controlling for time, condition and mindfulness experience, trait mindfulness was a significant covariate, $F(1, 187) = 5.24$, $p = .023$, $\eta p^2 = .03$. Controlling for time, condition and trait mindfulness, mindfulness experience was also a significant covariate, $F(1, 187) = 4.16$, $p = .043$, $\eta p^2 = .02$**.**

4. Autoregressive (i.e., Repeated Measures) Mediation Model

The autoregressive mediation model was fit using robust maximum likelihood estimation. The model fit was adequate, with robust TLI = .95, robust CFI = .97, robust RMSEA = .065, and SRMR = .045.

Table 8.

Structural Model Results from Autoregressive Model

Path	Estimate	SE	Z	*p*	95% CI	Standardized Estimate
Condition → Nonacceptance/Non-modulation	−0.332	1.332	−0.249	0.803	[−2.943, 2.280]	−0.016
Trait Mindfulness → Nonacceptance/Non-modulation	−0.530	0.064	−8.336	< .001	[−0.655, −0.406]	−0.552
Mindfulness Experience → Nonacceptance/Non-modulation	1.316	0.521	2.525	0.012	[0.295, 2.338]	0.147
Nonacceptance/Non-modulation → Negative Affect (After Block 2)	0.691	0.062	11.174	< .001	[0.570, 0.813]	0.68
Condition → Negative Affect (After Block 2)	−2.623	1.129	−2.323	0.02	[−4.837, −0.410]	−0.122
Condition → Negative Affect (After Block 3)	−0.377	0.981	−0.384	0.701	[−2.299, 1.545]	−0.016
Nonacceptance/Non-modulation → Negative Affect (After Block 3)	−0.023	0.084	−0.277	0.782	[−0.188, 0.141]	−0.021
Negative Affect (After Block 2)→ Negative Affect (After Block 3)	0.877	0.093	9.436	< .001	[0.695, 1.059]	0.824
Negative Affect (After Block 2)→ Commission Errors (Block 3)	0.042	0.033	1.271	0.204	[−0.018, 0.109]	0.093
Condition → Commission Errors (Block 3)	−0.591	0.735	−0.804	0.421	[−2.117, 0.913]	−0.061
Condition → Commission Errors (Block 4)	−0.920	0.492	−1.870	0.061	[−1.864, 0.023]	−0.098
Negative Affect (After Block 3)→ Commission Errors (Block 4)	0.001	0.021	0.071	0.943	[−0.039, 0.042]	0.004
Commission Errors (Block 3)→ Commission Errors (Block 4)	0.678	0.047	14.485	< .001	[0.586, 0.770]	0.702

Note. N = 191, SE = robust standard error.

5. Analyses on Additional CPT Performance Metrics (Omission Errors and Reaction Time)

5.1. The Effect of Condition on Omission Errors

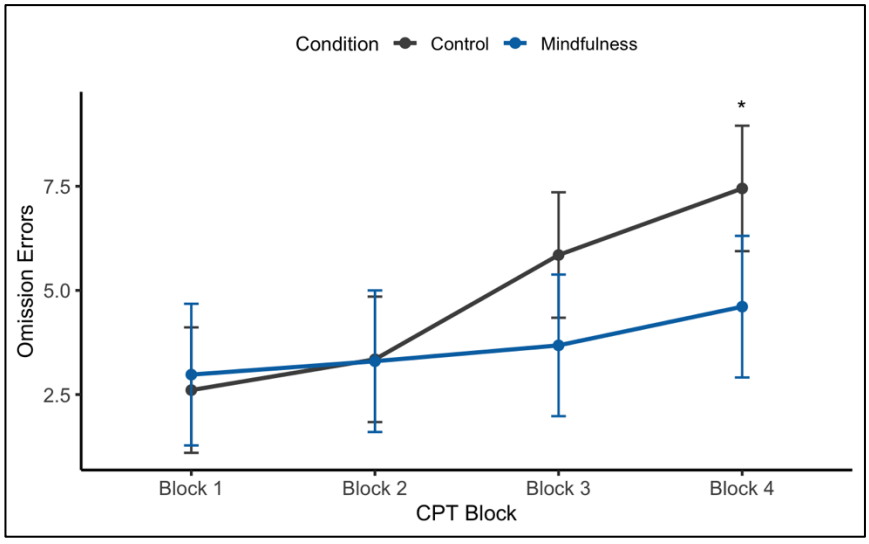
The analyses for omission errors were proposed as exploratory. To test the effect of condition and time on omission errors, a linear mixed effects model was estimated. The main effect and interaction of condition and time (four blocks of the CPT) and centered trait mindfulness were entered as predictors. The number of omission errors was entered as the dependent variable. The distribution of the residuals was significantly positively skewed, and there was evidence of heteroscedasticity. No transformations to the data were applied, as this is accommodated for by the robust nature of the linear mixed-effects model and the large sample size. Outliers were assessed using Cook's Distance with a threshold of $> 4/n$ on a participant basis, and nine outliers were identified. Their removal did not change the significance of the findings, and therefore, they were retained.

Controlling for condition and trait mindfulness, there was a significant main effect of time, $F(3, 567) = 12.26$, $p < .001$, $\eta p^2 = .06$, such that omission errors were higher in block three, $B = 3.24$, SE = 0.78, $t(567) = 4.14$, $p < .001$, and block four of the CPT, $B = 4.84$, SE = 0.78, $t(567) = 6.18$, $p < .001$ compared to block one. Controlling for time and trait mindfulness, the main effect of condition was not significant, $F(1, 188) = 1.68$, $p = .196$, $\eta p^2 = .01$. The Condition X Time interaction was significant, $F(3, 567) = 3.55$, $p = .014$, $\eta p^2 = .02$, such that changes in omission errors differed across conditions. However, this was a very small effect. Post hoc analyses revealed that omission errors were significantly higher in the control condition than in the mindfulness condition during Block 4, $B = 2.84$, SE = 1.16, $t(446) = 2.46$, $p = .014$, $d = 0.50$. Controlling for time and condition, trait mindfulness was not a significant predictor of omission errors, $F(1, 188) = 3.17$, $p = .077$, $\eta p^2 = .02$.

As the Condition X Time interaction was significant, the path analysis model was conducted.

Figure 1.

Linear Mixed Effects Model of the Effect of Condition and Time on Omission Errors



5.2. The Mediating Effect of Emotion Regulation and Negative Affect on the Relationship between Condition and Omission Errors

Model One: Negative Affect Post-Block Two and Omission Errors Block Three.

Model one was fit using robust maximum likelihood estimation. The model fit was adequate, with robust TLI = .94, robust CFI = .98, robust RMSEA = .077 (90% CI: .00, .16), and SRMR = .035. The model was the same as the previously estimated model for commission errors, except with omission errors entered as the dependent variable. Condition (p = .110, 95% CI = -3.92, 0.39) and negative affect (p = .086, 95% CI = −0.02, 0.30) were not significant predictors of omission errors. See Table 9 for regression output and Figure 2 for the path diagram.

Table 9.

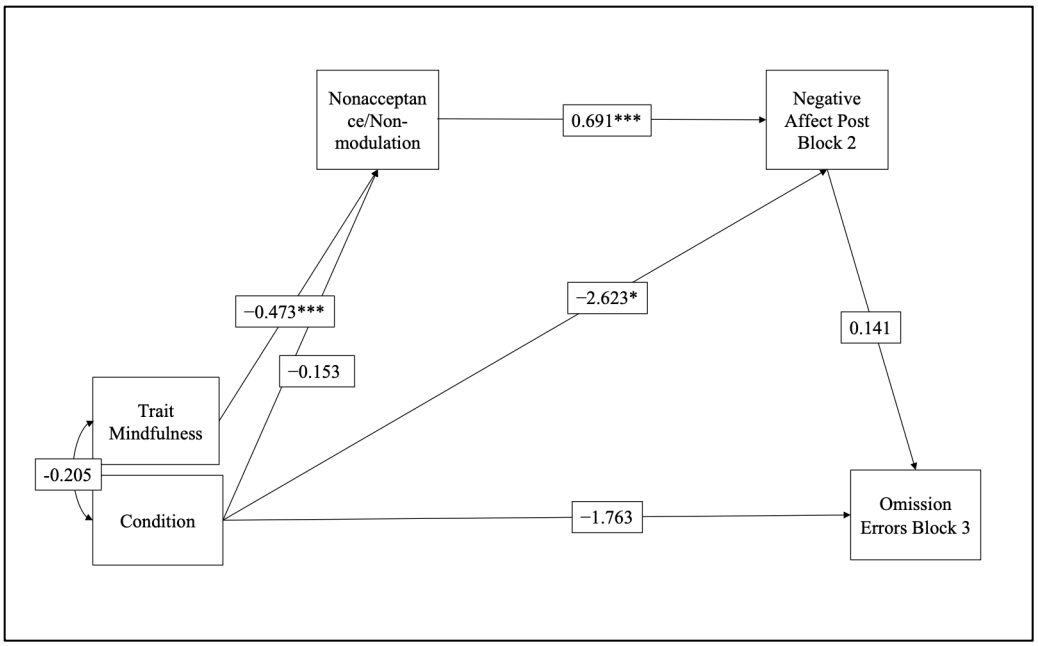
Structural Regression Results for Model One: Negative Affect (After Block Two) and Omission Errors (Block Three)

Path	Estimate	SE	Z	p	95% CI	Standardized Estimate
Condition → Nonacceptance/Non-modulation	−0.153	1.354	−0.113	0.91	[−2.806, 2.500]	−0.007
Trait Mindfulness → Nonacceptance/Non-modulation	−0.473	0.058	−8.097	< .001	[−0.588, −0.359]	−0.493
Nonacceptance/Non-modulation → Negative Affect (After block 2)	0.691	0.062	11.174	< .001	[0.570, 0.813]	0.68
Condition → Negative Affect (After block 2)	−2.623	1.129	−2.323	0.02	[−4.837, −0.410]	−0.122
Negative Affect (After block 2)→ Omission errors (Block 3)	0.141	0.082	1.717	0.086	[−0.020, 0.301]	0.169
Condition → Omission errors (Block 3)	−1.763	1.099	−1.603	0.109	[−3.918, 0.392]	−0.098

Note. N = 191, SE = Robust Standard Error

Figure 2.

Path Diagram of Model One: Negative Affect (After Block Two) and Omission Errors (Block Three)



Model Two: Negative Affect Post-Block Three and Omission Errors Block Four.

Model two was fit using robust maximum likelihood estimation. The model fit was good, with robust TLI = 1.01, robust CFI = 1.00, robust RMSEA = .00 (90% CI: [.00, .11]), and SRMR = .023. The findings were the same as the previous model; condition (p = .08, 95% CI = -5.20, 0.26) and negative affect post-block three (p = .078, 95% CI = −0.01, 0.26) were not significant predictors of omission errors at block four. See Table 10 for regression output and Figure 3 for the path diagram.

Table 10.

Structural Model Results from Model Two: Negative Affect (After Block Three) and Omission Errors (Block Four)

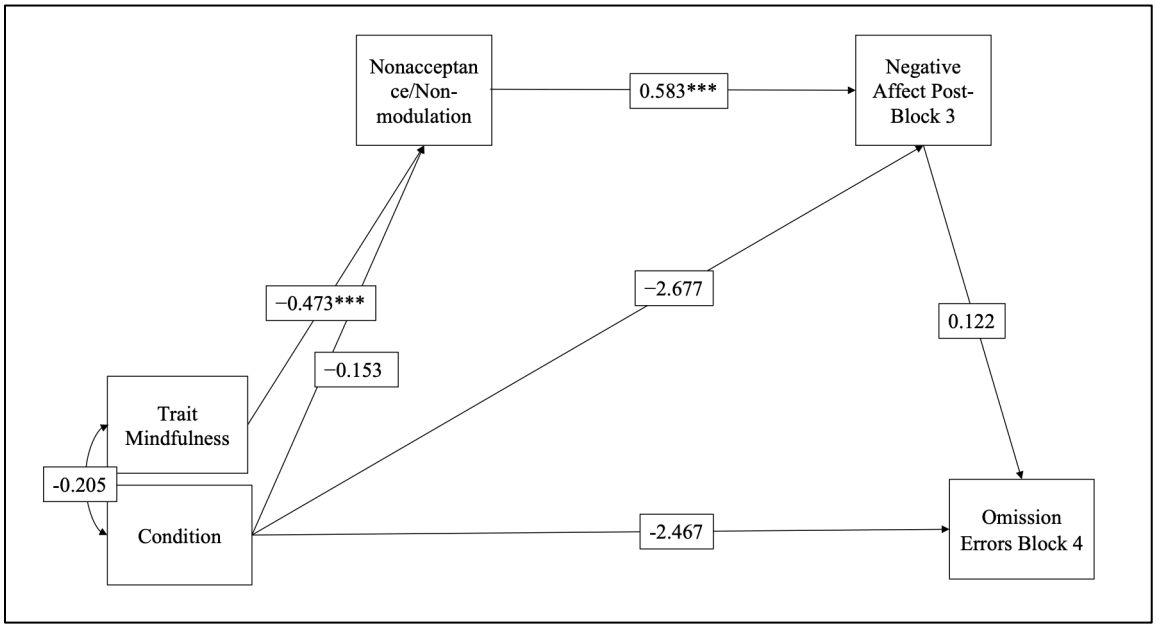
Path	Estimate	SE	Z	p	95% CI	Standardized Estimate
Condition → Nonacceptance/Non-modulation	−0.153	1.354	−0.113	0.91	[−2.806, 2.500]	−0.007
Trait Mindfulness → Nonacceptance/Non-modulation	−0.473	0.058	−8.097	< .001	[−0.588, −0.359]	−0.493

Nonacceptance/Non-modulation → Negative Affect (After block 3)	0.583	0.071	8.231	< .001	[0.444, 0.722]	0.539
Condition → Negative Affect (After block 3)	−2.677	1.38	−1.940	0.052	[−5.383, 0.028]	−0.117
Negative Affect (After block 3)→ Omission errors (Block 4)	0.122	0.069	1.762	0.078	[−0.014, 0.259]	0.132
Condition → Omission errors (Block 4)	−2.467	1.394	−1.770	0.077	[−5.199, 0.265]	−0.116

Note. N = 191, SE = Robust Standard Error

Figure 3.

Path Diagram of Model Two: Negative Affect (After Block Three) and Omission Errors (Block Four)



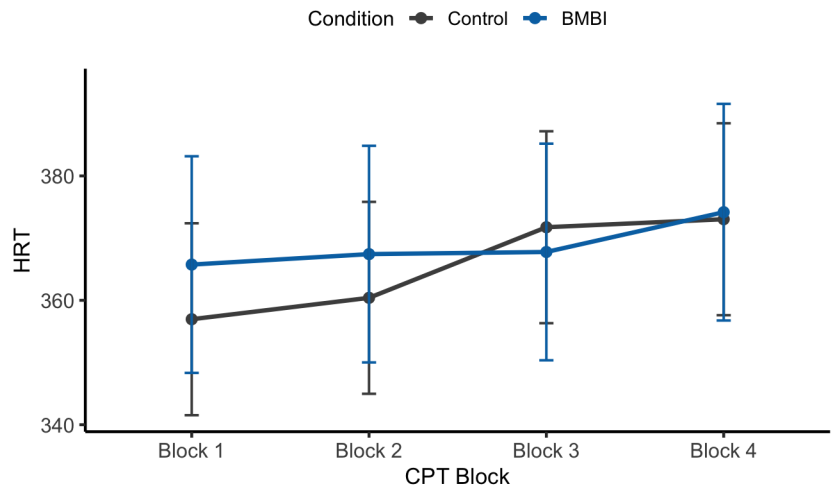
Taking both models into account, the findings do not support that condition influences omission errors through state emotional nonacceptance and non-modulation and negative affect.

5.3. The Effect of Condition on Non-Target Reaction Time (HRT)

The analyses for HRT were proposed as exploratory. To test the effect of condition and time on HRT, a linear mixed effects model was estimated. The main effect and interaction of condition and time (four blocks of the CPT) and standardized trait mindfulness were entered as predictors. Mean HRT was entered as the dependent variable. The data was normally distributed based on visual analysis of a Q-Q plot and had good homoscedasticity, based on the fitted v. residual plot. Outliers were assessed using Cook's Distance with a threshold of > 4/*n* on a participant basis, and six outliers were identified. Their removal did not affect the significance of the findings, and they were therefore retained. Controlling for trait mindfulness and condition, with outliers, there was a significant main effect of time, $F(3, 567) = 2.84$, $p = .038$, $\eta p^2 = .01$. Controlling for time and trait mindfulness, the effect of condition was not significant, $F(1, 188) = 0.10$, $p = .755$, ηp^2 .00. The time x condition interaction was not significant, $F(3, 567) = 0.79$, $p = .510$, $\eta p^2 = .00$, and trait mindfulness was not a significant covariate, $F(1, 188) = 0.20$, $p = .651$, $\eta p^2 = .00$.

Figure 4.

Linear Mixed Effects Model of the Effect of Condition and Time on HRT



As there was no significant effect of condition or Condition X Time interaction, the full path analysis was not conducted.