Supplementary Material

Table S1. *Single-Factor PSMU Model Standardized Factor Loadings and Standard Errors for Model A.*

BSMAS Scale item number	Loading	*SE*
1	.732	0.029
2	.856	0.023
3	.730	0.026
4	.621	0.035
5	.817	0.023
6	.693	0.031

Note. PSMU = Problematic social media use; BSMAS = Bergen Social Media Addiction Scale; *SE* = Standard error.

Table S2. *Two-Factor Rumination Model Standardized Factor Loadings With Standard Errors, and Factor Intercorrelation With Standard Error for Model A.*

RRS-10 Scale item number	Loading	*SE*
Brooding Items		
1	.746	0.029
3	.797	0.029
6	.679	0.036
7	.735	0.030
8	.792	0.026
Reflection Items		
2	.841	0.024
4	.828	0.024
5	.411	0.056
9	.780	0.026
10	.721	0.029

Note. RRS-10 = Ruminative Responses Scale-10 Item Version; *SE* = Standard error. Correlation between factors: .771 (*SE* = .028)

Table S3. *Single-Factor Depression Model Standardized Factor Loadings With Standard Errors for Model A.*

DASS-21 Scale item number	Loading	*SE*
3	.830	0.022
5	.602	0.040
10	.862	0.018
13	.817	0.025
16	.834	0.022
17	.876	0.018
21	.916	0.017

Note. DASS-21 = Depression Anxiety Stress-21 Scale; *SE* = Standard error.

Table S4. *Single-Factor Excessive Reassurance Seeking Model Standardized Factor Loadings With Standard Errors for Model A.*

TRSS Scale item number	Loading	*SE*
1	.693	0.028
5	.745	0.024
7	.898	0.015
8	.878	0.017

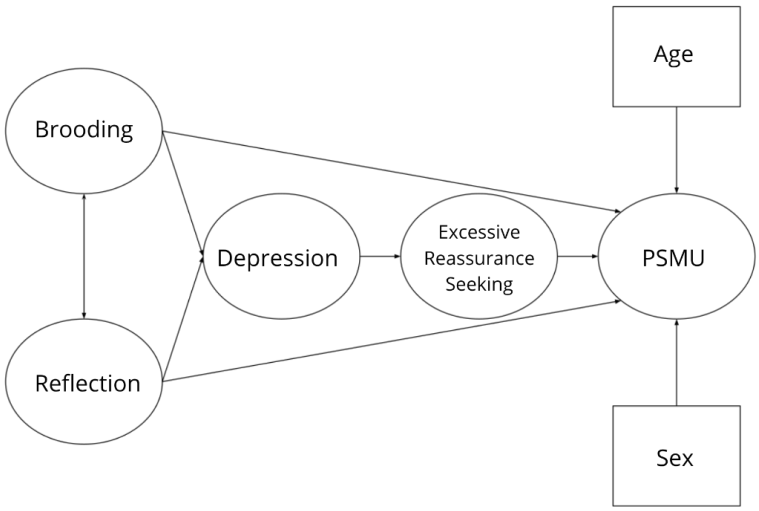
Note. TRSS = Threat-Related Reassurance Seeking Scale; *SE* = Standard error.

Supplemental Results Description 1: Description of Model C Results

In Model C, rather than specifying depression to predict rumination's brooding and reflection factors (as conducted in Model B), we instead specified brooding and rumination to predict depression. Model C's sequence does not fit well conceptually with the I-PACE model's ordering of variables suggesting depression as the predictor/predisposing variable. Therefore, our primary Model B (rather than Model C) is discussed in the main text; nonetheless, for the interested reader, we present details on Model C's results here in the supplemental text.

Model C (displayed in Supplemental Figure S1) fit well, WLSMV $\chi^2(369) = 840.244$, $p < .001$, CFI = .955, TLI = .951, RMSEA = .057 (90% CI: .052, .063), SRMR = .076. Although this model appeared to have slightly improved fit statistics over Model B, Models B and C cannot be directly, objectively statistically compared because they are not nested within each other, a prerequisite for difference testing.

Figure S1. *Model C Diagram.*



Note. PSMU = Problematic social media use; oval-shaped variables are latent variables, while rectangle-shaped variables are observed variables. Factor loadings paths for the latent variables are not displayed, to reduce visual clutter.

Supplemental Table S5 (top portion) shows direct path coefficients for Model C. Direct effects were quite similar to those of Model B, except the depression-reflection relationship was no longer statistically significant.

Table S5 (bottom portion) also shows Model C's indirect effects; in contrast to results from Model B, Model C demonstrated no significant indirect relationship between brooding, depression and PSMU, and no significant indirect effect between brooding, ERS and PSMU; however, a new significant indirect relationship was discovered between depression, ERS and PSMU. Consistent with Model B, Model C's serial indirect effect involving brooding (from brooding to depression to ERS to PSMU) remained significant.

Note. ERS = Excessive reassurance seeking; PSMU = Problematic social media use. WLSMV = weighted least squares with a mean- and variance-adjustment; χ^2 = chi-square value; *df* = degrees of freedom; *p* = *p* value/level of statistical

significance; CFI = comparative fit index; TLI = Tucker-Lewis Index; RMSEA = root mean squared error of approximation; SRMR = standardized root mean square residual; CI = confidence interval.

Table S5. *Direct and Indirect Effect Standardized Results for Model C.*

	Std. Estimate	*SE*	*Z*-test	*p*	Std. Estimate 95% CI
Direct Effects					
ERS→PSMU	.311	0.048	6.513	< .001	
Brooding→PSMU	.309	0.091	3.383	.001	
Reflection→PSMU	−.029	0.090	−0.321	.748	
Depression→ERS	.544	0.043	12.724	< .001	
Brooding→Depression	.636	0.084	7.603	< .001	
Reflection→Depression	.094	0.091	1.033	.302	
Age→PSMU	−.020	0.012	−1.576	.115	
Sex→PSMU	.417	0.111	3.748	< .001	
Reflection←→Brooding Correlation	.776	0.029	27.111	< .001	
Indirect Effects					
Brooding→ERS→PSMU	.000	0.000	N/A	N/A	N/A
Brooding→Depression→PSMU	.000	0.000	N/A	N/A	N/A
Reflection→ERS→PSMU	.000	0.000	N/A	N/A	N/A
Reflection→Depression→PSMU	.000	0.000	N/A	N/A	N/A
Depression→ERS→PSMU	.169	0.032	5.235	< .001	[.116, .222]
Brooding→Depression→ERS→PSMU	.107	0.027	4.011	< .001	[.063, .151]
Reflection→Depression→ERS→PSMU	.016	0.018	0.891	.373	[−.013, .045]

Note. ERS = Excessive reassurance seeking; PSMU = Problematic social media use; Std. Estimate = Standardized beta/regression coefficient (except for the Reflection←→Brooding correlation, which is a Pearson correlation); *SE* = Standard error; Z-test = Computation of Std. Estimate/*SE*; *p* = *p* value or significance level; CI = Confidence interval (provided for indirect effects); N/A = Not applicable (because dividing the Std. Beta by an SE of zero cannot be computed). Indirect effects' standard errors were bootstrapped. All standardized estimates were computed using Mplus' STDYX method, except for the path from sex→PSMU which used the STDY method because sex is a categorical predictor variable. Sex was coded 1 = *male*, 2 = *female*.

Table S6. *Number of Missing Values Imputed Per Scale.*

Scale	# Missing Values Imputed
DASS-21	37
RRS-10	16
TRRS	2
BSMAS	5

Note. DASS-21 = Depression Anxiety Stress Scale-21; RRS-10 = Ruminative Responses Scale-10; TRSS = Threat-Related Reassurance Seeking Scale; BSMAS = Bergen Social Media Addiction Scale.