

The Observed Mindful Behaviours scale: Supplementary materials

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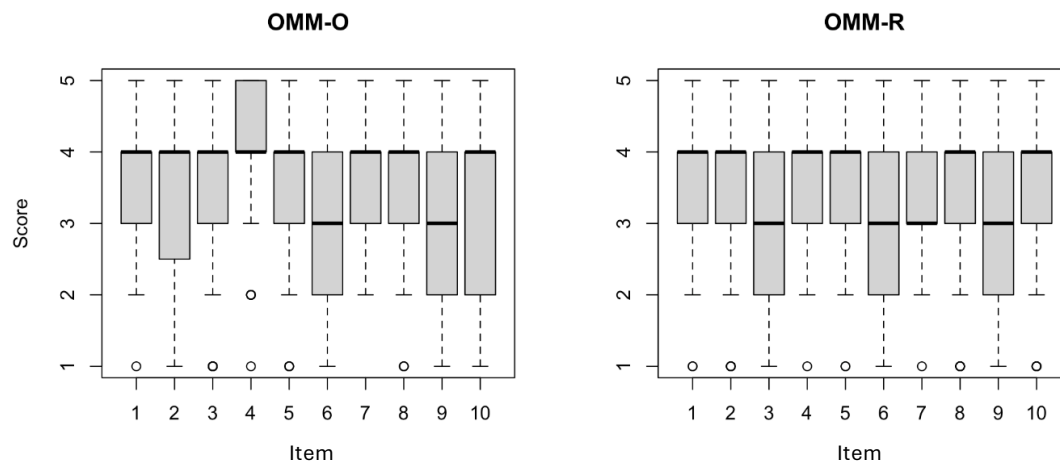
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Supplementary Figure S.1. Boxplots showing response distributions from Prolific samples 1 (n=99) and 2 (n=101)



Supplementary Figure S. 1. Boxplots showing response distributions from Prolific Samples 1 and 2 with 5-point response options for the 10 OMM items of the original (OMM-O, left panel) and revised (OMM-R, right panel) measures. Lower and upper hinges depict the 25th and 75th percentile respectively with the lower and upper whiskers depicting values 1.5 times the interquartile range (defined as the distance between the 25th and 75th percentile) below and above the hinges, respectively. Data beyond the whiskers are plotted as unfilled circles.

Full Confirmatory Factor Analysis outputs for the final 9-item measure using data from the community dyadic sample (n=190)

Model 3: First order model

CALL:

```
omm_firstorder_r2_model <- 'Awareness =~ omm2 + omm5 + omm8
  Attentiveness =~ omm1 + omm4 + omm7
  Acceptance =~ omm3 + omm6 + omm9'
```

#fit the model

```
fit_r2 <- cfa(omm_firstorder_r2_model, data=fa_data)
```

OUTPUT:

lavaan 0.6-18 ended normally after 33 iterations

Estimator	ML
Optimization method	NLMINB
Number of model parameters	21
Number of observations	190
Model Test User Model:	
Test statistic	46.556
Degrees of freedom	24
P-value (Chi-square)	0.004
Model Test Baseline Model:	
Test statistic	752.888
Degrees of freedom	36
P-value	0.000
User Model versus Baseline Model:	
Comparative Fit Index (CFI)	0.969
Tucker-Lewis Index (TLI)	0.953
Loglikelihood and Information Criteria:	
Loglikelihood user model (H0)	-1836.269
Loglikelihood unrestricted model (H1)	-1812.991
Akaike (AIC)	3714.539
Bayesian (BIC)	3782.726
Sample-size adjusted Bayesian (SABIC)	3716.207
Root Mean Square Error of Approximation:	
RMSEA	0.070
90 Percent confidence interval - lower	0.039
90 Percent confidence interval - upper	0.100
P-value H ₀ : RMSEA ≤ 0.050	0.127
P-value H ₀ : RMSEA ≥ 0.080	0.321
Standardized Root Mean Square Residual:	
SRMR	0.044
Parameter Estimates:	
Standard errors	Standard
Information	Expected
Information saturated (h1) model	Structured

Latent Variables:

	Estimate	Std.Err	z-value	P(> z)
Awareness =~				
omm2	1.000			
omm5	1.011	0.128	7.885	0.000
omm8	1.050	0.109	9.637	0.000
Attentiveness =~				
omm1	1.000			
omm4	1.054	0.098	10.746	0.000
omm7	1.040	0.102	10.212	0.000
Acceptance =~				
omm3	1.000			
omm6	1.007	0.117	8.580	0.000
omm9	1.155	0.128	8.990	0.000

Covariances:

	Estimate	Std.Err	z-value	P(> z)
Awareness ~				
Attentiveness	0.269	0.043	6.266	0.000
Acceptance	0.312	0.051	6.122	0.000
Attentiveness ~				
Acceptance	0.310	0.052	5.932	0.000

Variances:

	Estimate	Std.Err	z-value	P(> z)
.omm2	0.228	0.033	6.832	0.000
.omm5	0.537	0.063	8.527	0.000
.omm8	0.253	0.037	6.853	0.000
.omm1	0.256	0.035	7.255	0.000
.omm4	0.213	0.033	6.409	0.000
.omm7	0.284	0.039	7.324	0.000
.omm3	0.414	0.057	7.224	0.000
.omm6	0.497	0.065	7.628	0.000
.omm9	0.509	0.073	7.006	0.000
Awareness	0.324	0.057	5.706	0.000
Attentiveness	0.376	0.064	5.891	0.000
Acceptance	0.486	0.091	5.364	0.000

Model 4: Second-order (hierarchical) model

CALL:

```
omm_r2_hierarchical_model <- '
# First-order factors
Aware =~ omm2 + omm5 + omm8
Attent =~ omm1 + omm4 + omm7
Accept =~ omm3 + omm6 + omm9
# Second-order factor
OMB =~ Aware + Attent + Accept
,
```

```
fit_r2_hierarchical <- cfa(omm_r2_hierarchical_model, data = fa_data, std.lv=TRUE)
```

OUTPUT:

lavaan 0.6.15 ended normally after 34 iterations

Estimator	ML
Optimization method	NLMINB
Number of model parameters	21
Number of observations	190
Model Test User Model:	
Test statistic	46.556
Degrees of freedom	24
P-value (Chi-square)	0.004
Model Test Baseline Model:	
Test statistic	752.888
Degrees of freedom	36
P-value	0.000
User Model versus Baseline Model:	
Comparative Fit Index (CFI)	0.969
Tucker-Lewis Index (TLI)	0.953
Loglikelihood and Information Criteria:	
Loglikelihood user model (H0)	-1836.269
Loglikelihood unrestricted model (H1)	-1812.991
Akaike (AIC)	3714.539
Bayesian (BIC)	3782.726
Sample-size adjusted Bayesian (SABIC)	3716.207
Root Mean Square Error of Approximation:	
RMSEA	0.070
90 Percent confidence interval - lower	0.039
90 Percent confidence interval - upper	0.100
P-value H ₀ : RMSEA ≤ 0.050	0.127
P-value H ₀ : RMSEA ≥ 0.080	0.321
Standardized Root Mean Square Residual:	
SRMR	0.044
Parameter Estimates:	
Standard errors	Standard
Information	Expected
Information saturated (h1) model	Structured

Latent Variables:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
Awareness =~						
omm2	1.000				0.569	0.766
omm5	1.011	0.128	7.885	0.000	0.575	0.618
omm8	1.050	0.109	9.637	0.000	0.597	0.765
Attentiveness =~						
omm1	1.000				0.613	0.771
omm4	1.054	0.098	10.746	0.000	0.646	0.814
omm7	1.040	0.102	10.212	0.000	0.637	0.767
Acceptance =~						
omm3	1.000				0.697	0.735
omm6	1.007	0.117	8.580	0.000	0.702	0.706
omm9	1.155	0.128	8.990	0.000	0.805	0.748
OMB =~						
Awareness	1.000				0.916	0.916
Attentiveness	0.991	0.132	7.490	0.000	0.843	0.843
Acceptance	1.150	0.158	7.301	0.000	0.860	0.860

Variances:

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
.omm2	0.228	0.033	6.832	0.000	0.228	0.413
.omm5	0.537	0.063	8.527	0.000	0.537	0.619
.omm8	0.253	0.037	6.853	0.000	0.253	0.415
.omm1	0.256	0.035	7.255	0.000	0.256	0.405
.omm4	0.213	0.033	6.409	0.000	0.213	0.338
.omm7	0.284	0.039	7.324	0.000	0.284	0.412
.omm3	0.414	0.057	7.224	0.000	0.414	0.460
.omm6	0.497	0.065	7.628	0.000	0.497	0.502
.omm9	0.509	0.073	7.006	0.000	0.509	0.440
.Awareness	0.052	0.029	1.819	0.069	0.161	0.161
.Attentiveness	0.109	0.032	3.380	0.001	0.290	0.290
.Acceptance	0.127	0.045	2.823	0.005	0.261	0.261
.OMB	0.271	0.055	4.934	0.000	1.000	1.000

Supplementary Table S.1. Mean scores for all variables, Community sample of dyads

Variable	Participant (<i>n</i> =190)	Observer (<i>n</i> =190)
Total OMB		
<i>Mean (SD)</i>	-	34.7 (5.67)
Missing	-	0 (0%)
OMB Attentiveness		
<i>Mean (SD)</i>	-	11.9 (2.09)
Missing	-	0 (0%)
OMB Acceptance		
<i>Mean (SD)</i>	-	10.6 (2.51)
Missing	-	0 (0%)
OMB Awareness		
<i>Mean (SD)</i>	-	12.1 (2.02)
Missing	-	0 (0%)
Empathy (IRI)		
<i>Mean (SD)</i>	26.9 (4.02)	-
Missing	4 (2.1%)	-
Empathy (IRI)		
<i>Mean (SD)</i>		26.9 (4.02)
Missing		4 (2.1%)
Psychological Inflexibility (AAQ-2)		
<i>Mean (SD)</i>	21.3 (8.54)	-
Missing	4 (2.1%)	-
Dimensions of anger (DAR)		
<i>Mean (SD)</i>	7.96 (2.64)	-
Missing	4 (2.1%)	-
Dispositional mindfulness (FFMQ-SF)		
<i>Mean (SD)</i>	37.6 (5.35)	-
Missing	4 (2.1%)	-
Interpersonal mindfulness (IMS)		
<i>Mean (SD)</i>	99.9 (11.9)	100 (12.5)
Missing	4 (2.1%)	7 (3.7%)
Psychological capital (CPC-R)		
<i>Mean (SD)</i>	55.6 (8.66)	-
Missing	4 (2.1%)	-
Psychological distress (K6)		
<i>Mean (SD)</i>	14.6 (5.27)	-
Missing	4 (2.1%)	-
Prosocial behaviours (PBIS)		
<i>Mean (SD)</i>	24.5 (3.47)	-
Missing	4 (2.1%)	-

Means and SDs for scale data collected from Participant:Observer dyads (*n*=190). OMB: Observed Mindful Behaviours scale; IRI: Interpersonal Reactivity Index; AAQ-2: Acceptance and Action Questionnaire; DAR: Dimensions of Anger Reactivity scale; FFMQ-SF: Fiver Facet Mindfulness Questionnaire – Short Form (15 item version); IMS: Interpersonal Mindfulness Scale; CPC-R: Compound Psychological Capital – Revised; K6: Kessler 6-item measure of Psychological Distress; PBIS: Prosocial Behavioural Intentions Scale.

Supplementary Table S.2. Influence of dyadic relationship and mindfulness training on Observed Mindful Behaviours (OMB) scale ratings

Hypothesized covariates influencing OMB ratings	Observer characteristics			Participant characteristics			Observer:participant relationship		
	β	95% CI	p	β	95% CI	p	β	95% CI	p
Observer: Colleague (Intercept)	32.92	30.41 – 35.44	<0.001	34.74	31.74 – 37.75	<0.001	35.8	30.80 – 40.80	<0.001
Self-guided mindfulness course	0.02	-2.20 – 2.24	0.985	-0.56	-3.17 – 2.06	0.675			
Formal, group-based mindfulness course	-0.10	-1.92 – 1.72	0.915	-1.15	-3.38 – 1.08	0.310			
Female	0.66	-0.98 – 2.30	0.427	0.37	-1.74 – 2.49	0.728			
Age	0.04	-0.01 – 0.09	0.143	0.02	-0.06 – 0.09	0.654			
Observer: Family							-0.58	-5.76 – 4.61	0.827
Observer: Friend							-0.71	-5.99 – 4.56	0.791
Observer: Partner							-2.08	-7.25 – 3.10	0.429
Observations	183			182			189		
R ² / R ² adjusted	0.017 / -0.005			0.007 / -0.016			0.016 / 0.000		

Ordinary least squares (linear) regression models were used to test the hypotheses for Aim 2. We tested the strength of association between participants' self-reported trait and interpersonal mindfulness (independent variables) and the observer-reported OMB scores (dependent variable), with age, sex and previous mindfulness training set as covariates.

Covariate test 1 = OMB ratings are not influenced by Observers' exposure to mindfulness training, gender or age (no significant associations)

Covariate test 2 = OMB ratings are not influenced by Participants exposure to mindfulness training (no significant associations)

Covariate test 3 = OMB ratings are not influenced by observers relationship with the participant.