

Supplemental Material

**Social Stigma, Mental Health, Stress, and Health-Related Quality of Life in People with Long COVID**

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Table S1: Correlations between main constructs and potential control variables age, and sex

Psychological measures	Age	Sex <sup>a</sup>
1. Total social stigma	-.07	.08
2. Enacted and perceived external stigma	-.01	.11
3. Disclosure concerns	-.04	-.003
4. Internalized stigma	-.19**	.01
5. Depressive symptoms	-.09	-.05
6. Anxiety	-.08	-.05
7. Perceived stress	-.10	.07
8. Physical hrqol	-.01	-.14*
9. Mental hrqol	.03	.02
10. Overall burden of consequences of Long COVID	-.08	-.03
11. Overall burden of Long COVID symptoms	-.13*	.07

Note. \*  $p < .05$ . \*\*  $p < .01$ . <sup>a</sup> 0 = male, 1 = female; hrqol = health-related quality of life

**Table S2***Results of multiple regression analyses with enacted and perceived external stigma as predictor*

	Perceived stress <sup>a</sup>				Depressive symptoms <sup>b</sup>				Anxiety <sup>c</sup>			Physical quality of life <sup>d</sup>				Mental quality of life <sup>e</sup>				
	<i>beta</i>	<i>b</i>	<i>b</i> 95% CI		<i>beta</i>	<i>b</i>	<i>b</i> 95% CI		<i>beta</i>	<i>b</i>	<i>b</i> 95% CI		<i>beta</i>	<i>b</i>	<i>b</i> 95% CI		<i>beta</i>	<i>b</i>	<i>b</i> 95% CI	
			LL	UL			LL	UL			LL	UL			LL	UL			LL	UL
Intercept		<b>.88**</b>	.35	1.40		1.52	-.69	3.73		<b>2.76*</b>	.44	5.08		<b>71.29**</b>	63.22	79.35		<b>65.66**</b>	55.98	75.34
Enacted and perceived external stigma	.25	<b>.17**</b>	.08	.25	.19	<b>.59**</b>	.23	.95	.09	.30	-.09	.69	-.13	<b>-1.02*</b>	-1.96	-.09	-.19	<b>-1.52**</b>	-2.55	-.50
Overall disease strain	.23	<b>.07**</b>	.03	.11	.14	<b>.21*</b>	.04	.38	-.07	-.10	-.28	.08	-.20	<b>-.70**</b>	-1.14	-.26	-.17	<b>-.64*</b>	-1.13	-.14
Overall symptom strain	.02	.01	-.05	.07	.04	.10	-.16	.36	.06	.14	-.14	.42	-.28	<b>-1.49**</b>	-2.17	-.81	-.18	<b>-1.02*</b>	-1.80	-.25
Anxiety					.46	<b>.45**</b>	.34	.56												
Depressive symptoms									.49	<b>.50**</b>	.38	.62								
Sex <sup>f</sup>													-.12	<b>-3.82*</b>	-7.48	-.16				
Mental hrqol <sup>g</sup>													-.32	<b>-.30**</b>	-.41	-.19				
Physical hrqol <sup>g</sup>																	-.35	<b>-.37**</b>	-.51	-.24

*Note.* \*  $p < .05$ . \*\*  $p < .01$ . Empty rows indicate that the covariate was not included in the analysis. Coefficients in bold are significant.  $\Delta R^2$  is the added explained variance of total stigma predictor after controlling for covariates. <sup>a</sup> adjusted  $R^2 = 0.12$ ;  $\Delta R^2 = 0.06$ . <sup>b</sup> adjusted  $R^2 = 0.33$ ;  $\Delta R^2 = 0.03$ . <sup>c</sup> adjusted  $R^2 = 0.28$ ;  $\Delta R^2 = 0.01$ . <sup>d</sup> adjusted  $R^2 = 0.24$ ;  $\Delta R^2 = 0.02$ . <sup>e</sup> adjusted  $R^2 = 0.16$ ;  $\Delta R^2 = 0.03$ . <sup>f</sup> 0 = male, 1 = female. <sup>g</sup> hrqol = health-related quality of life

**Table S3***Results of multiple regression analyses with disclosure concerns as predictor*

	Perceived stress <sup>a</sup>				Depressive symptoms <sup>b</sup>				Anxiety <sup>c</sup>			Physical quality of life <sup>d</sup>			Mental quality of life <sup>e</sup>					
	<i>beta</i>	<i>b</i>	<i>b</i> 95% CI		<i>beta</i>	<i>b</i>	<i>b</i> 95% CI		<i>beta</i>	<i>b</i>	<i>b</i> 95% CI		<i>beta</i>	<i>b</i>	<i>b</i> 95% CI					
			LL	UL			LL	UL			LL	UL			LL	UL				
Intercept		<b>.78**</b>	.25	1.31		1.20	-1.04	3.43		<b>2.50*</b>	.24	4.76		<b>71.80**</b>	63.60	80.01		<b>65.48**</b>	55.83	75.12
Disclosure concerns	.19	<b>.12**</b>	.04	.19	.08	.22	-.11	.55	.21	<b>.62**</b>	.29	.95	-.06	-.41	-1.24	.42	-.19	<b>-1.43**</b>	-2.32	-.54
Overall disease strain	.23	<b>.07**</b>	.03	.11	.15	<b>.23*</b>	.05	.40	-.07	-.11	-.29	.06	-.20	<b>-.72**</b>	-1.17	-.28	-.16	<b>-.62*</b>	-1.11	-.12
Overall symptom strain	.06	.03	-.03	.09	.08	.18	-.08	.44	.07	.15	-.11	.42	-.30	<b>-1.63**</b>	-2.30	-.96	-.20	<b>-1.15**</b>	-1.91	-.38
Anxiety					.47	<b>.46**</b>	.35	.58												
Depressive symptoms									.47	<b>.48**</b>	.36	.60								
Sex <sup>f</sup>													-.13	<b>-4.26*</b>	-7.92	-.59				
Mental hrqol <sup>g</sup>													-.31	<b>-.29**</b>	-.40	-.18				
Physical hrqol <sup>g</sup>																	-.33	<b>-.35**</b>	-.486	-.22

*Note.* \*  $p < .05$ . \*\*  $p < .01$ . Empty rows indicate that the covariate was not included in the analysis. Coefficients in bold are significant.  $\Delta R^2$  is the added explained variance of total stigma predictor after controlling for covariates. <sup>a</sup> adjusted  $R^2 = 0.11$ ;  $\Delta R^2 = 0.04$ . <sup>b</sup> adjusted  $R^2 = 0.31$ ;  $\Delta R^2 = 0.01$ . <sup>c</sup> adjusted  $R^2 = 0.31$ ;  $\Delta R^2 = 0.04$ . <sup>d</sup> adjusted  $R^2 = 0.22$ ;  $\Delta R^2 = 0.003$ . <sup>e</sup> adjusted  $R^2 = 0.16$ ;  $\Delta R^2 = 0.04$ . <sup>f</sup> 0 = male, 1 = female. <sup>g</sup> hrqol = health-related quality of life

**Table S4***Results of multiple regression analyses with internalized stigma as predictor*

	Perceived stress <sup>a</sup>				Depressive symptoms <sup>b</sup>				Anxiety <sup>c</sup>			Physical quality of life <sup>d</sup>			Mental quality of life <sup>e</sup>					
	<i>beta</i>	<i>b</i>	<i>b</i> 95% CI		<i>beta</i>	<i>b</i>	<i>b</i> 95% CI		<i>beta</i>	<i>b</i>	<i>b</i> 95% CI		<i>beta</i>	<i>b</i>	<i>b</i> 95% CI					
			LL	UL			LL	UL			LL	UL			LL	UL				
Intercept		<b>.87**</b>	.35	1.38		1.74	-.47	3.95		<b>3.19**</b>	.95	5.43		<b>71.12**</b>	62.86	79.39		<b>62.59**</b>	53.11	72.06
Internalized stigma	.27	<b>.21**</b>	.11	.30	.22	<b>.79**</b>	.36	1.21	.28	<b>1.00**</b>	.57	1.44	.01	.11	-.98	1.19	-.28	<b>-2.59**</b>	-3.69	-1.49
Overall disease strain	.22	<b>.07**</b>	.03	.11	.14	<b>.20*</b>	.04	.37	-.07	-.11	-.29	.06	-.21	<b>-.74**</b>	-1.19	-.30	-.14	<b>-.55*</b>	-1.04	-.06
Overall symptom strain	.04	.02	-.05	.08	.06	.14	-.12	.40	.05	.11	-.15	.38	-.31	<b>-1.66**</b>	-2.34	-.98	-.16	<b>-.93*</b>	-1.68	-.17
Anxiety					.40	<b>.40**</b>	.28	.51												
Depressive symptoms									.41	<b>.41**</b>	.29	.54								
Sex <sup>f</sup>													-.14	<b>-4.31*</b>	-7.99	-.63				
Mental hrqol <sup>g</sup>													-.30	<b>-2.28**</b>	-.39	-.16				
Physical hrqol <sup>g</sup>																	-.30	<b>-.32**</b>	-.45	-.19

*Note.* <sup>\*</sup>  $p < .05$ . <sup>\*\*</sup>  $p < .01$ . Empty rows indicate that the covariate was not included in the analysis. Coefficients in bold are significant.  $\Delta R^2$  is the added explained variance of total stigma predictor after controlling for covariates. <sup>a</sup> adjusted  $R^2 = 0.14$ ;  $\Delta R^2 = 0.07$ . <sup>b</sup> adjusted  $R^2 = 0.34$ ;  $\Delta R^2 = 0.04$ . <sup>c</sup> adjusted  $R^2 = 0.33$ ;  $\Delta R^2 = 0.06$ . <sup>d</sup> adjusted  $R^2 = 0.22$ ;  $\Delta R^2 = 0.00$ . <sup>e</sup> adjusted  $R^2 = 0.20$ ;  $\Delta R^2 = 0.08$ . <sup>f</sup> 0 = male, 1 = female. <sup>g</sup> hrqol = health-related quality of life

**Table S5**

*Results of multiple regression analyses with social stigma (total score) as predictor with the subsample of participants who had an official confirmation of their Long Covid condition*

	Perceived stress <sup>a</sup>			Depressive symptoms <sup>b</sup>			Anxiety <sup>c</sup>			Physical quality of life <sup>d</sup>			Mental quality of life <sup>e</sup>		
	n=190			n=190			n=190			n=185			n=188		
	<i>beta</i>	<i>b</i>	<i>b</i> 95% CI	<i>beta</i>	<i>b</i>	<i>b</i> 95% CI	<i>beta</i>	<i>b</i>	<i>b</i> 95% CI	<i>beta</i>	<i>b</i>	<i>b</i> 95% CI	<i>beta</i>	<i>b</i>	<i>b</i> 95% CI
			LL UL			LL UL			LL UL			LL UL			LL UL
Intercept		<b>.86**</b>	.03 1.21		1.81	-.79 4.41		1.15	- 3.87		<b>70.06**</b>	59.70 80.42		<b>67.44**</b>	56.47 78.42
Stigma	.32	<b>.26**</b>	.15 .36	.22	<b>.91**</b>	.43 1.40	.20	<b>.77**</b>	.26 1.28	1.58	1.58	1.28	-.16	-1.19	-2.46 .09
Overall burden of disease	.22	<b>.07**</b>	.03 .12	.13	.11	-.09 .31	.06	.10	-.11 .31	-.13	<b>-.59*</b>	-1.13 -.06	-.15	<b>-.63*</b>	-1.22 -.04
Overall burden of symptoms	-.01	-.003	-.08 -.07	.04	.13	-.18 .44	.05	.12	-.20 .44	-.25	<b>-1.47**</b>	-2.30 -.64	-.17	<b>-1.08*</b>	-2.02 -.14
Anxiety				.42	<b>.41**</b>	.29 .54									
Depressive symptoms							.44	<b>.45**</b>	.31 .58						
Sex <sup>f</sup>										-.11	-3.85	-8.73 1.02			
Mental hrqol <sup>g</sup>										-.33	<b>-.30**</b>	-.42 -.17			
Physical hrqol <sup>g</sup>													-.33	<b>-.36**</b>	-.51 -.21

*Note.* \*  $p < .05$ . \*\*  $p < .01$ . Empty rows indicate that the covariate was not included in the analysis of this specific outcome. Coefficients in bold are significant.  $\Delta R^2$  is the added explained variance of total stigma predictor after controlling for covariates.

<sup>a</sup> adjusted  $R^2 = 0.16$ ;  $\Delta R^2 = 0.10$ . <sup>b</sup> adjusted  $R^2 = 0.35$ ;  $\Delta R^2 = 0.05$ . <sup>c</sup> adjusted  $R^2 = 0.30$ ;  $\Delta R^2 = 0.03$ . <sup>d</sup> adjusted  $R^2 = 0.18$ ;  $\Delta R^2 = 0.02$ . <sup>e</sup> adjusted  $R^2 = 0.20$ ;  $\Delta R^2 = 0.07$ . <sup>f</sup> 0 = male, 1 = female. <sup>g</sup> hrqol = health-related quality of life.

**Table S6**

*Results of multiple regression analyses with enacted and perceived external stigma as predictor with the subsample of participants who had an official confirmation of their Long Covid condition*

	Perceived stress <sup>a</sup>				Depressive symptoms <sup>b</sup>				Anxiety <sup>c</sup>			Physical quality of life <sup>d</sup>				Mental quality of life <sup>e</sup>				
	n=190				n=190				n=190			n=185				n=188				
	<i>beta</i>	<i>b</i>	<i>b</i> 95% CI		<i>beta</i>	<i>b</i>	<i>b</i> 95% CI		<i>beta</i>	<i>b</i>	<i>b</i> 95% CI		<i>beta</i>	<i>b</i>	<i>b</i> 95% CI		<i>beta</i>	<i>b</i>	<i>b</i> 95% CI	
			LL	UL			LL	UL			LL	UL			LL	UL			LL	UL
Intercept		<b>.88**</b>	.25	1.51		1.79	-.83	4.41		.95	-	3.73		<b>69.51**</b>	59.22	79.80		<b>67.66**</b>	56.51	78.80
Enacted and perceived external stigma	.26	<b>.17**</b>	.08	.27	.21	<b>.65**</b>	.26	1.03	.07	.21	1.83 - .21	.637	-.15	<b>-1.13*</b>	-2.18	-.08	-.22	<b>-1.84**</b>	-3.00	-.69
Overall disease strain	.23	<b>.08**</b>	.03	.12	.07	.11	-.09	.31	.06	.11	-.11	.316	-1.6	<b>-.59*</b>	-1.12	-.06	-.16	<b>-.66*</b>	-1.26	-.06
Overall symptom strain	.01	.004	-.07	.08	.05	.13	-.18	.44	.07	.17	-.16	.50	-.25	<b>-.14**</b>	-2.27	-.61	-.18	<b>-1.17*</b>	-2.12	-.22
Anxiety					.47	<b>.46**</b>	.34	.58												
Depressive symptoms									.50	<b>.51**</b>	.38	.64								
Sex <sup>f</sup>													-.10	-3.73	-8.59	1.13				
Mental hrqol <sup>g</sup>													-.33	<b>-.29**</b>	-.411	-1.68				
Physical hrqol <sup>g</sup>																	-.33	<b>-.37**</b>	-.53	-.22

*Note.* \* $p < .05$ . \*\* $p < .01$ . Empty rows indicate that the covariate was not included in the analysis. Coefficients in bold are significant.  $\Delta R^2$  is the added explained variance of total stigma predictor after controlling for covariates. <sup>a</sup> adjusted  $R^2 = 0.13$ ;  $\Delta R^2 = 0.06$ . <sup>b</sup> adjusted  $R^2 = 0.34$ ;  $\Delta R^2 = 0.04$ . <sup>c</sup> adjusted  $R^2 = 0.30$ ;  $\Delta R^2 = 0.004$ . <sup>d</sup> adjusted  $R^2 = 0.18$ ;  $\Delta R^2 = 0.02$ . <sup>e</sup> adjusted  $R^2 = 0.17$ ;  $\Delta R^2 = 0.04$ . <sup>f</sup> 0 = male, 1 = female. <sup>g</sup> hrqol = health-related quality of life

**Table S7**

*Results of multiple regression analyses with disclosure concerns as predictor with the subsample of participants who had an official confirmation of their Long Covid condition*

	Perceived stress <sup>a</sup>			Depressive symptoms <sup>b</sup>			Anxiety <sup>c</sup>			Physical quality of life <sup>d</sup>			Mental quality of life <sup>e</sup>		
	n=190			n=190			n=190			n=185			n=188		
	<i>beta</i>	<i>b</i>	<i>b</i> 95% CI	<i>beta</i>	<i>b</i>	<i>b</i> 95% CI	<i>beta</i>	<i>b</i>	<i>b</i> 95% CI	<i>beta</i>	<i>b</i>	<i>b</i> 95% CI	<i>beta</i>	<i>b</i>	<i>b</i> 95% CI
			LL UL			LL UL			LL UL			LL UL			LL UL
Intercept		<b>.74*</b>	.10 1.38		1.38	-1.29 4.05		.56	- 3.25		<b>70.11**</b>	59.64 80.58		<b>68.12**</b>	56.82 79.41
Disclosure concerns	.22	<b>.13**</b>	.05 .21	.10	.28	-.08 .64	.23	<b>.66**</b>	.31 1.01	2.12	-.08	-0.56 -1.47	.35	-.16	<b>-1.23*</b> -2.23
Overall disease strain	.24	<b>.08**</b>	.03 .13	.08	.13	-.07 .33	.07	.11	-.09 .32	-.17	<b>-0.62*</b>	-1.16 -.09	-.17	<b>-.71*</b>	-1.31 -.10
Overall symptom strain	.05	.02	-.05 .1	.09	.22	-.09 .53	.07	.17	-.14 .49	-.27	<b>-1.58**</b>	-2.4 -.75	-.21	<b>-1.36**</b>	-2.31 -.42
Anxiety				.48	<b>.46**</b>	.33 .59									
Depressive symptoms							.45	<b>.46**</b>	.33 .59						
Sex <sup>f</sup>										-.11	-4.17	-9.06 .72			
Mental hrqol <sup>g</sup>										-.32	<b>-.28**</b>	-.40 -.16			
Physical hrqol <sup>g</sup>													-.32	<b>-.35**</b>	-.51 -.20

*Note.* \*  $p < .05$ . \*\*  $p < .01$ . Empty rows indicate that the covariate was not included in the analysis. Coefficients in bold are significant.  $\Delta R^2$  is the added explained variance of total stigma predictor after controlling for covariates. <sup>a</sup> adjusted  $R^2 = 0.11$ ;  $\Delta R^2 = 0.05$ . <sup>b</sup> adjusted  $R^2 = 0.31$ ;  $\Delta R^2 = 0.01$ . <sup>c</sup> adjusted  $R^2 = 0.35$ ;  $\Delta R^2 = 0.05$ . <sup>d</sup> adjusted  $R^2 = 0.17$ ;  $\Delta R^2 = 0.01$ . <sup>e</sup> adjusted  $R^2 = 0.15$ ;  $\Delta R^2 = 0.03$ . <sup>f</sup> 0 = male, 1 = female. <sup>g</sup> hrqol = health-related quality of life



**Table S8**

*Results of multiple regression analyses with internalized stigma as predictor with the subsample of participants who had an official confirmation of their Long Covid condition*

	Perceived stress <sup>a</sup>				Depressive symptoms <sup>b</sup>				Anxiety <sup>c</sup>			Physical quality of life <sup>d</sup>				Mental quality of life <sup>e</sup>				
	n=189				n=189				n=189			n=184				n=187				
	<i>beta</i>	<i>b</i>	<i>b</i> 95% CI		<i>beta</i>	<i>b</i>	<i>b</i> 95% CI		<i>beta</i>	<i>b</i>	<i>b</i> 95% CI		<i>beta</i>	<i>b</i>	<i>b</i> 95% CI		<i>beta</i>	<i>b</i>	<i>b</i> 95% CI	
			LL	UL			LL	UL			LL	UL			LL	UL			LL	UL
Intercept		<b>.87**</b>	.25	1.48		1.96	-.66	4.58		1.53	-1.09	4.15		<b>69.37**</b>	58.80	79.87		<b>64.98**</b>	54.04	75.92
Internalized stigma	.05	<b>.24**</b>	.15	.34	.25	<b>.86**</b>	.38	1.33	.33	<b>1.17**</b>	.71	1.62	-.01	-.10	-1.29	1.10	-.29	<b>-2.70**</b>	-3.93	-1.48
Overall disease strain	.02	<b>.07**</b>	.03	.12	.08	.12	-.08	.32	.07	-.11	-.09	.30	-.17	<b>-.63*</b>	-1.17	-.09	-.14	<b>-.61*</b>	-1.20	-.02
Overall symptom strain	.04	.01	-.07	.08	.16	.18	-.13	.48	.05	.12	-.19	.42	-.28	<b>-1.60**</b>	-2.44	-.77	-.17	<b>-1.10*</b>	-2.03	-.17
Anxiety					.07	<b>.38**</b>	.24	.51												
Depressive symptoms									.37	<b>.38**</b>	.24	.51								
Sex <sup>f</sup>													-.11	-4.10	-9.03	.83				
Mental hrqol <sup>g</sup>													-.31	<b>-.27**</b>	-.39	-.14				
Physical hrqol <sup>g</sup>																	-.29	<b>-.32**</b>	-.47	-.17

*Note.* \* $p < .05$ . \*\* $p < .01$ . Empty rows indicate that the covariate was not included in the analysis. Coefficients in bold are significant.  $\Delta R^2$  is the added explained variance of total stigma predictor after controlling for covariates. <sup>a</sup> adjusted  $R^2 = 0.17$ ;  $\Delta R^2 = 0.11$ . <sup>b</sup> adjusted  $R^2 = 0.35$ ;  $\Delta R^2 = 0.04$ . <sup>c</sup> adjusted  $R^2 = 0.38$ ;  $\Delta R^2 = 0.08$ . <sup>d</sup> adjusted  $R^2 = 0.16$ ;  $\Delta R^2 = 0.00$ . <sup>e</sup> adjusted  $R^2 = 0.21$ ;  $\Delta R^2 = 0.08$ . <sup>f</sup> 0 = male, 1 = female. <sup>g</sup> hrqol = health-related quality of life .