

Modeling the Effect of Psycho-Socio-Economic Consequences of COVID-19 on Life Satisfaction: The Role of Deviation from a Balanced Time Perspective

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Supplementary material

Table S1. Measures description.

Construct	Reference	Number of items and an example	Response scale
Difficulty to adherence to anti-pandemic measures	Created by authors	11 items: stay home; social distancing; face covering in interior; face covering in exterior; hand washing; public transportation; group activities; collective sports; hand disinfection; hand shaking; travelling abroad for leisure	1 = not difficult at all; 5 = very difficult
Loneliness	Short version of loneliness scale (USL-8; Hays & DiMatteo, 1987)	8 items (e.g., "I feel isolated from others.")	1 = strongly disagree; 7 = strongly agree
Contentment with pandemic management by authorities	Created by authors	7 items: opinion on how the authorities managed the pandemic situation (e.g., perceived adequacy of restrictions; satisfaction with the pandemic management)	1 = not at all; 7 = very well
Change in economic situation due to the pandemic	Created by authors	6 items: the impact of the pandemic on the individual and household economic situation (e.g., during the pandemic, your household economic situation...)	1 = worsened; 7 = improved
COVID-related stress	COVID-related stress scale (adapted from the COVIDiSTRESS survey; Yamada et al., 2021).	18 items: e.g., concerns about the socio-economic situation, daily functioning...	1 = no concerns; 7 = big concerns
COVID-related anxiety	COVID Anxiety Scale (Silva et al., 2020).	7 items: e.g., fear of getting infected	1 = not at all; 7 = completely
Time perspective	ZTPI short (Košťál et al., 2016)	18 items: e.g., "It gives me pleasure to think about my past"	1 = very untrue; 5 = very true

Satisfaction with life	Cantril's visual (ladder) scale (Kohút et al., 2022)	1 item - visual (ladder)	1 = lowest life satisfaction; 10 = highest life satisfaction
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Table S2. Regression estimates.

Estimate	b	SE	p	Beta
Loneliness				
~ Adherence	0.19	0.04	<0.001	0.19
	<i>0.21</i>	<i>0.04</i>	<i><0.001</i>	<i>0.21</i>
Contentment with pandemic management				
~ Adherence	-0.21	0.04	<0.001	-0.21
	<i>-0.15</i>	<i>0.04</i>	<i><0.001</i>	<i>-0.15</i>
Economic change				
~ Adherence	-0.20	0.05	<0.001	-0.19
	<i>-0.22</i>	<i>0.05</i>	<i><0.001</i>	<i>-0.22</i>
COVID-19-related stress				
~ Loneliness	0.44	0.05	<0.001	0.36
	<i>0.53</i>	<i>0.05</i>	<i><0.001</i>	<i>0.42</i>
~ Contentment with pandemic management	0.13	0.04	0.002	0.11
	<i>0.05</i>	<i>0.04</i>	<i>0.261</i>	<i>0.04</i>
~ Economic change	-0.45	0.05	<0.001	-0.37
	<i>-0.57</i>	<i>0.06</i>	<i><0.001</i>	<i>-0.45</i>
~ DBTP	0.32	0.05	<0.001	0.22
	<i>0.20</i>	<i>0.06</i>	<i>0.001</i>	<i>0.13</i>
COVID-19-related anxiety				
~ Loneliness	0.36	0.05	<0.001	0.32
	<i>0.40</i>	<i>0.05</i>	<i><0.001</i>	<i>0.35</i>
~ Contentment with pandemic management	0.31	0.04	<0.001	0.27
	<i>0.23</i>	<i>0.05</i>	<i><0.001</i>	<i>.20</i>
~ Economic change	-0.22	0.05	<0.001	-0.19
	<i>-0.31</i>	<i>0.05</i>	<i><0.001</i>	<i>-0.27</i>
~ DBTP	0.28	0.05	<0.001	0.21
	<i>0.33</i>	<i>0.05</i>	<i><0.001</i>	<i>0.23</i>
Satisfaction with life				
~ Loneliness	-0.32	0.04	<0.001	-0.31
	<i>-0.37</i>	<i>0.04</i>	<i><0.001</i>	<i>0.42</i>
~ Economic change	0.28	0.04	<0.001	0.27
	<i>0.43</i>	<i>0.05</i>	<i><0.001</i>	<i>0.42</i>
~ COVID-19-related stress	0.06	0.04	00.076	0.71
	<i>-0.03</i>	<i>0.05</i>	<i>.039</i>	<i>-0.04</i>
~ COVID-19-related anxiety	0.02	0.04	0.020	0.02
	<i>0.09</i>	<i>0.05</i>	<i>0.109</i>	<i>0.10</i>
~ DBTP	-0.46	0.05	<0.001	-0.36
	<i>-0.47</i>	<i>0.05</i>	<i><0.001</i>	<i>-0.37</i>

Results from the exploratory datasets are written in regular, results from the confirmatory dataset are written in italic.

Invariance testing

To test for measurement invariance, configural, weak factorial (metric), strong factorial (scalar), and strict (residual) invariance have been examined.

Results are presented in Supplementary Tables S3 and S4. Note that as some authors argue that the significance of the change in χ^2 criterion is overly sensitive (see Putnick & Bornstein, 2016 or Svetina & Rutkowski, 2019 for discussion), we provide more detailed results by reporting classical χ^2 test as well as an alternative fit indices (CFI, RMSEA, and SRMR) across models. In particular, we used $\Delta CFI \leq -.010$ change in CFI and $\Delta RMSEA \geq 0.015$ as the criterion.

Table S3. Invariance testing – Gender.

Model	χ^2 (<i>df</i>)	CFI	RMSEA (90% CI)	Model compariso n	$\Delta\chi^2$ (Δdf)	Decision Based on $\Delta\chi^2$	ΔCF I	$\Delta RMSE$ A	Decision based on ΔCFI & $\Delta RMSEA$
M1: Configura l Invarianc e	5865.8 (2718)	0.85 8	0.060						
M2: Metric Invarianc e	5932.8 (2764)	0.85 7	0.059		67.003 (46)*	Reject	0.00 1	0	Accept (ΔCFI ; $\Delta RMSEA$)
M3: Scalar Invarianc e	6012.7 (2811)	0.85 6	0.059		79.927 (47) **	Reject	0.00 1	0	Accept (ΔCFI ; $\Delta RMSEA$)
M4: Residual Invarianc e	6024.4 (2817)	0.85 5	0.059		11.660 (6)***	Reject	0.00 0	0	Accept (ΔCFI ; $\Delta RMSEA$)

Table 3. Invariance testing – Age groups.

Model	χ^2 (<i>df</i>)	CFI	RMSEA (90% CI)	Model compariso n	$\Delta\chi^2$ (Δdf)	Decision Based on $\Delta\chi^2$	ΔCF I	$\Delta RMSE$ A	Decision based on ΔCFI & $\Delta RMSEA$
M1: Configura l Invarianc e	9875.8 (5436)	0.81 5	0.071						
M2: Metric Invarianc e	10037.8 (5574)	0.81 4	0.070		162.01 (138)	Accept	0.00 1	0.001	Accept (ΔCFI ; $\Delta RMSEA$)
M3: Scalar Invarianc e	10361.5 (5715)	0.80 6	0.071		323.67 (141)***	Reject	0.00 8	0.001	Accept (ΔCFI ; $\Delta RMSEA$)
M4: Residual Invarianc e	10390.9 (5733)	0.80 6	0.071		29.40 (18)*	Reject	0.00 0	0.000	Accept (ΔCFI ; $\Delta RMSEA$)

Relationships across groups

To further examine the pattern of relations among age and gender, we conducted Multi-group SEM. Regression paths are shown in Supplementary Table 5 and fit indices are listed in Supplementary Table 6.

Table S5. Relationships among latent variables across age and gender.

Variables	Age group	Adulthood (30 to 44 years)	Middle age (45 years to 59 years)	Elder people (60 years and more)	Consistent across age groups?	Gender		Consistent across gender?
						Male	Female	
Loneliness ~								
Adherence	0.06	0.19**	0.23***	0.16	No	0.22***	0.21**	Yes
Economic change ~								
Adherence	-0.16	-0.17*	-0.18*	-0.32**	No	-0.08	-0.32***	No
Economic change ~								
Adherence	-0.14	-0.26**	-0.16	-0.30*	No	-0.20**	-0.27**	No
Covid stress ~								
Loneliness	0.58***	0.30**	0.37***	0.44***	Yes	0.41***	0.37***	Yes
Satisfaction with authorities	0.31*	0.14	-0.05	0.19	No	0.10	0.09	No
Economic change	-0.18	-0.43***	-0.49***	-0.58***	No	-0.48***	-0.38***	Yes
DBTP	0.24***	0.25***	0.21***	0.22***	Yes	0.23**	0.22***	Yes
Covid anxiety ~								
Loneliness	0.63***	0.25**	0.40***	0.28**	Yes	0.38***	0.35***	Yes
Satisfaction with authorities	0.28*	0.20*	0.20*	0.34**	Yes	0.22**	0.25***	Yes
Economic change	-0.15	-0.35***	-0.30***	-0.11	No	-0.24**	-0.24**	Yes
DBTP	0.21***	0.20***	0.19***	0.20***	Yes	0.22***	0.18***	Yes
Life satisfaction ~								
Economic change	0.44**	0.08	0.10	0.04	No	0.13	0.25**	No
Covid stress	-0.19***	-0.22**	-0.20***	-0.19***	Yes	-0.26*	-0.15*	Yes
Covid anxiety	0.02	0.017	0.02	0.02	Yes	-0.03	-0.04	No
DBTP	-0.16***	-0.16***	-0.14***	-0.15***	Yes	-0.14**	-0.127**	Yes

Table 6. MG-SEM Fit indices.

Model with	Fit indices
Age	$\chi^2 (5730) = 6563.50, p < 0.001; CFI = 0.89; TLI = 0.89; RMSEA = 0.03, 95\% CI [0.026, 0.033]; SRMR = 0.089)$
Gender	$\chi^2 (2816) = 3822.50, p < 0.001; CFI = 0.89; TLI = 0.89; RMSEA = 0.03, 95\% CI [0.030, 0.036]; SRMR = 0.072)$