Supplementary materials

Table S1

RULS scales and subscales

No.	Scale/Subscale	RULS item number
1	Hawkley et al. (2005) Short F. 1	2, 11, 14, 17
2	Hawkley et al. (2005) Short F. 3	1, 5, 6, 9
3	Hojat (1982) F. 1	12, 14, 17, 18
4	Hojat (1982) F. 4	2, 3, 7, 8
5	McWhirter (1990) F. 2 / Hawkley et al. (2005) Short F. 2	10, 16, 19, 20
6	Penning et al. (2014) F. 2	4, 10, 19, 20
7	Roberts et al. (1993) F. 1	2, 7, 11, 14
8	Roberts et al. (1993) F. 2	1, 4, 5, 15
9	Russell et al. (1980) Short	1, 13, 15, 18
10	Austin (1983) F. 2 / Neto (1992) F. 2 / Hawkley et al. (2005) Complete F. 2	10, 15, 16, 19, 20
11	Austin (1983) F. 3	1, 4, 5, 6, 9
12	Hawkley et al. (2005) Complete F. 3	1, 5, 6, 8, 9
13	Knight et al. (1988) A positive items*	1, 4, 6, 16, 19
14	Knight et al. (1988) A negative items*	2, 7, 8, 11, 18
15	Knight et al. (1988) B positive items*	5, 9, 10, 15, 20
16	Knight et al. (1988) B negative items*	3, 12, 13, 14, 17
17	Penning et al. (2014) F. 1	2, 3, 11, 14, 17
18	Penning et al. (2014) F. 4	1, 5, 6, 9, 15
19	Russell (1996) 10-item positive items	6, 10, 16, 19, 20
20	Russell (1996) 10-item negative items	2, 11, 13, 14, 18
21	McWhirter (1990) F. 3	1, 4, 5, 6, 9, 15
22	Neto (1992) F. 1 ULS-6	2, 5, 11, 14, 17, 18
23	Penning et al. (2014) F. 3	7, 8, 12, 13, 16, 18
24	Wilson et al. (1992) UCLA-8 F. 1	2, 3, 11, 14, 17, 18
25	Wongpakaran (2020) RULS-6	2, 4, 7, 11, 13, 18
26	Oshagan & Allen (1992)	2, 3, 11, 12, 13, 14, 18
27	Hays & DiMatteo (1987) ULS-8	2, 3, 9, 11, 14, 15, 17, 18
28	Roberts et al. (1993) RULS-8	1, 2, 4, 5, 7, 11, 14, 15
29	Wilson et al. (1992) UCLA-20 F. 2	1, 5, 6, 9, 10, 15, 19, 20
30	Russell (1996) UCLA-LS 3 positive items	1, 5, 6, 9, 10, 15, 16, 19, 20
31	Austin (1983) F. 1 / Russell et al. (1980) negative items	2, 3, 7, 8, 11, 12, 13, 14, 17, 18
32	Hartshorne (1993) / Zakahi & Duran (1982) F. 1	2, 3, 4, 7, 10, 13, 14, 16, 19, 20
33	Hartshorne (1993) / Zakahi & Duran (1982) F. 2	1, 5, 6, 8, 9, 11, 12, 15, 17, 18
34	Hawkley et al. (2005) Complete F. 1	2, 3, 4, 7, 11, 12, 13, 14, 17, 18

Table S1 continues

Table S1

Table S1 continued

No.	Scale/Subscale	RULS item number
35	Knight et al. (1988) A	1, 2, 4, 6, 7, 8, 11, 16, 18, 19
36	Knight et al. (1988) B	3, 5, 9, 10, 12, 13, 14, 15, 17, 20
37	McWhirter (1990) F. 1	2, 3, 7, 8, 11, 12, 13, 14, 17, 18
38	Russell (1996) 10-item	2, 6, 10, 11, 13, 14, 16, 18, 19, 20
39	Russell et al. (1980) positive items	1, 4, 5, 6, 9, 10, 15, 16, 19, 20

Note. F – Factor; RULS – Revised UCLA Loneliness Scale. *Bifactorial versions as showed by Panayiotou et al. (2023).

Table S2

Results for models from Table S1

No.	*n*	s. χ^2	s. *p*	r. CFI	SRMR	AVE	CR	r. RMSEA (r. CI)	α
					4 items (s. *df* = 2)				
1	329	**0.265**	**.876**	**1.000**	**0.005**	**0.61**	**0.81**	0.000 (0.000-0.070)	.80
	525	7.186	.028	**0.993**	**0.018**	**0.63**	**0.82**	0.083 (0.022-0.153)	.81
	623	**0.077**	**.962**	**1.000**	**0.002**	**0.62**	**0.82**	0.000 (0.000-0.000)	.81
2	329	**1.567**	**.457**	**1.000**	**0.021**	**0.51**	0.71	0.000 (0.000-0.182)	.68
	525	**1.487**	**.475**	**1.000**	**0.015**	**0.54**	0.73	0.000 (0.000-0.148)	.70
	623	**3.125**	**.210**	**0.992**	**0.023**	0.43	0.63	0.058 (0.000-0.163)	.60
3	329	**1.796**	**.407**	**1.000**	**0.014**	**0.58**	0.79	0.000 (0.000-0.133)	.77
	525	8.407	.015	**0.988**	**0.025**	**0.57**	0.79	0.100 (0.037-0.173)	.76
	623	**4.388**	**.111**	**0.998**	**0.014**	**0.58**	0.79	0.042 (0.000-0.109)	.78
4	329	25.854	< .001	0.908	**0.064**	0.43	0.65	0.203 (0.130-0.287)	.62
	525	36.806	< .001	0.902	**0.064**	0.44	0.69	0.219 (0.155-0.289)	.65
	623	50.344	< .001	0.894	**0.062**	0.46	0.72	0.238 (0.183-0.299)	.68
5	329	**0.335**	**.846**	**1.000**	**0.005**	**0.71**	**0.82**	0.000 (0.000-0.113)	.80
	525	**3.479**	**.176**	**0.999**	**0.008**	**0.76**	**0.86**	0.041 (0.000-0.125)	.84
	623	6.938	.031	**0.994**	**0.015**	**0.68**	**0.80**	0.086 (0.024-0.158)	.79
6	329	18.021	< .001	**0.952**	**0.060**	**0.62**	0.73	0.255 (0.140-0.388)	.68
	525	**6.592**	**.037**	**0.989**	**0.021**	**0.64**	0.73	0.112 (0.036-0.201)	.72
	623	**2.106**	**.349**	**0.999**	**0.012**	**0.59**	0.69	0.038 (0.000-0.128)	.67
7	329	**2.588**	**.274**	**0.999**	**0.015**	**0.56**	0.78	0.024 (0.000-0.125)	.77
	525	**3.122**	**.210**	**0.998**	**0.013**	**0.57**	0.79	0.037 (0.000-0.112)	.77
	623	**4.137**	**.126**	**0.994**	**0.015**	**0.56**	0.78	0.067 (0.000-0.139)	.77
8	329	**3.723**	**.155**	**0.983**	**0.037**	0.42	0.64	0.086 (0.000-0.233)	.59
	525	**2.301**	**.317**	**0.996**	**0.021**	0.50	0.70	0.046 (0.000-0.169)	.65
	623	**1.134**	**.567**	**1.000**	**0.013**	0.42	0.63	0.000 (0.000-0.104)	.59

Table S2 continues

Table S2

Table S2 continued

No.	*n*	s. χ^2	s. *p*	r. CFI	SRMR	AVE	CR	r. RMSEA (r. CI)	α
9	329	**4.333**	**.115**	**0.982**	**0.042**	0.43	0.70	0.086 (0.000-0.217)	.59
	525	7.08	.029	**0.972**	**0.040**	0.47	0.71	0.121 (0.027-0.228)	.64
	623	18.992	< .001	0.915	**0.062**	0.41	0.68	0.187 (0.113-0.272)	.61
					5 items (s. *df* = 5)				
10	329	**3.121**	**.681**	**1.000**	**0.013**	**0.67**	**0.83**	0.000 (0.000-0.085)	.81
	525	**7.758**	**.170**	**0.996**	**0.012**	**0.74**	**0.88**	0.055 (0.000-0.112)	.87
	623	24.872	< .001	**0.98**	**0.023**	**0.68**	**0.84**	0.116 (0.074-0.163)	.84
11	329	**7.682**	**.175**	**0.985**	**0.039**	0.44	0.69	0.065 (0.000-0.15)	.68
	525	**7.405**	**.192**	**0.998**	**0.027**	0.48	0.72	0.027 (0.000-0.109)	.69
	623	16.144	.006	0.942	**0.042**	0.39	0.63	0.113 (0.063-0.167)	.59
12	329	**3.338**	**.648**	**1.000**	**0.025**	0.44	0.67	0.000 (0.000-0.104)	.64
	525	**7.019**	**.219**	**0.997**	**0.026**	0.45	0.67	0.030 (0.000-0.109)	.63
	623	12.493	.029	**0.986**	**0.034**	0.37	0.61	0.053 (0.000-0.112)	.57
13	329	13.12	.022	**0.962**	**0.048**	0.49	0.70	0.117 (0.041-0.196)	.68
	525	13.206	.022	**0.972**	**0.032**	**0.52**	0.74	0.105 (0.052-0.163)	.71
	623	**10.769**	**.056**	**0.980**	**0.032**	0.45	0.67	0.076 (0.021-0.132)	.64
14	329	24.365	< .001	**0.960**	**0.047**	0.44	0.74	0.106 (0.061-0.155)	.72
	525	40.715	< .001	0.940	**0.049**	0.47	0.77	0.142 (0.105-0.184)	.74
	623	55.945	< .001	0.945	**0.048**	0.47	0.77	0.135 (0.102-0.170)	.75
15	329	20.379	.001	0.943	**0.047**	**0.56**	0.77	0.161 (0.094-0.234)	.75
	525	25.378	< .001	**0.956**	**0.037**	**0.63**	0.82	0.163 (0.112-0.219)	.80
	623	61.627	< .001	0.920	**0.058**	**0.54**	0.75	0.189 (0.150-0.231)	.73
16	329	26.638	< .001	0.928	**0.051**	**0.53**	**0.81**	0.173 (0.118-0.233)	.78
	525	67.345	< .001	0.917	**0.057**	**0.53**	**0.81**	0.186 (0.146-0.229)	.77
	623	16.187	.006	**0.988**	**0.025**	**0.51**	0.79	0.067 (0.027-0.109)	.78
17	329	15.964	.007	**0.972**	**0.032**	**0.60**	**0.84**	0.120 (0.062-0.182)	.83
	525	32.447	< .001	**0.965**	**0.036**	**0.60**	**0.84**	0.135 (0.093-0.180)	.83
	623	44.44	< .001	**0.976**	**0.036**	**0.60**	**0.84**	0.110 (0.075-0.149)	.83
18	329	**6.509**	**.260**	**0.990**	**0.035**	0.48	0.74	0.057 (0.000-0.150)	.71
	525	**10.136**	**.071**	**0.986**	**0.025**	**0.54**	0.78	0.075 (0.000-0.142)	.75
	623	**6.343**	**.274**	**0.984**	**0.027**	0.43	0.69	0.064 (0.000-0.124)	.66
19	329	17.893	.003	**0.978**	**0.035**	**0.68**	**0.84**	0.128 (0.042-0.216)	.82
	525	30.405	< .001	**0.974**	**0.031**	**0.70**	**0.86**	0.139 (0.093-0.191)	.84
	623	24.868	< .001	**0.982**	**0.026**	**0.61**	**0.80**	0.102 (0.066-0.141)	.79
20	329	13.383	.020	**0.982**	**0.029**	**0.57**	**0.83**	0.094 (0.039-0.153)	.82
	525	22.8	< .001	**0.986**	**0.029**	**0.60**	**0.84**	0.087 (0.048-0.129)	.83
	623	41.073	< .001	**0.962**	**0.037**	**0.56**	**0.82**	0.132 (0.098-0.170)	.81

Table S2 continues

Table S2

Table S2 continued

No.	*n*	s. χ^2	s. *p*	r. CFI	SRMR	AVE	CR	r. RMSEA (r. CI)	α
				6 items (s. *df* = 9)					
21	329	**15.76**	**.072**	**0.983**	**0.046**	0.44	0.74	0.059 (0.000-0.123)	.71
	525	19.318	.023	**0.980**	**0.033**	0.50	0.78	0.072 (0.021-0.119)	.75
	623	27.646	.001	**0.953**	**0.042**	0.39	0.69	0.089 (0.052-0.127)	.66
22	329	**12.241**	**.200**	**0.993**	**0.025**	**0.57**	**0.84**	0.051 (0.000-0.104)	.84
	525	34.745	< .001	**0.968**	**0.034**	**0.59**	**0.86**	0.110 (0.078-0.146)	.85
	623	**9.727**	**.373**	**0.999**	**0.016**	**0.56**	**0.84**	0.016 (0.000-0.057)	.83
23	329	19.445	.022	**0.974**	**0.039**	0.44	0.77	0.073 (0.027-0.117)	.75
	525	21.119	.012	**0.983**	**0.027**	0.47	**0.80**	0.062 (0.029-0.096)	.78
	623	19.121	.024	**0.988**	**0.024**	0.44	0.78	0.049 (0.014-0.082)	.76
24	329	22.332	.008	**0.973**	**0.032**	**0.60**	**0.87**	0.101 (0.057-0.148)	.85
	525	48.491	< .001	**0.959**	**0.038**	**0.61**	**0.87**	0.127 (0.096-0.160)	.86
	623	48.12	< .001	**0.981**	**0.031**	**0.60**	**0.86**	0.084 (0.058-0.113)	.85
25	329	66.364	< .001	0.914	**0.060**	**0.52**	**0.84**	0.156 (0.119-0.196)	.81
	525	162.348	< .001	0.887	**0.070**	**0.56**	**0.87**	0.195 (0.166-0.226)	.84
	623	161.077	< .001	0.897	**0.067**	**0.54**	**0.86**	0.179 (0.152-0.208)	.83
				7 items (s. *df* = 14)					
26	329	54.519	< .001	0.939	**0.047**	**0.54**	**0.86**	0.124 (0.092-0.158)	.84
	525	118.174	< .001	0.933	**0.052**	**0.55**	**0.87**	0.135 (0.111-0.160)	.85
	623	97.365	< .001	0.947	**0.046**	**0.52**	**0.85**	0.112 (0.090-0.135)	.83
				8 items (s. *df* = 20)					
27	329	51.676	< .001	**0.955**	**0.048**	**0.51**	**0.86**	0.095 (0.066-0.126)	.84
	525	110.764	< .001	0.942	**0.049**	**0.53**	**0.87**	0.112 (0.091-0.134)	.85
	623	107.081	< .001	**0.957**	**0.046**	0.49	**0.85**	0.090 (0.072-0.109)	.83
28	329	104.381	< .001	0.900	**0.074**	0.46	**0.84**	0.133 (0.105-0.162)	.81
	525	201.16	< .001	0.875	**0.068**	**0.53**	**0.88**	0.162 (0.138-0.187)	.84
	623	250.608	< .001	0.861	**0.077**	0.48	**0.87**	0.159 (0.137-0.181)	.82
29	329	96.537	< .001	0.891	**0.058**	**0.58**	**0.86**	0.172 (0.133-0.212)	.83
	525	114.044	< .001	0.918	**0.051**	**0.61**	**0.88**	0.152 (0.123-0.182)	.85
	623	173.138	< .001	0.916	**0.057**	**0.53**	**0.83**	0.136 (0.113-0.160)	.81
				9 items (s. *df* = 27)					
30	329	108.995	< .001	0.886	**0.058**	**0.57**	**0.87**	0.163 (0.130-0.197)	.85
	525	126.681	< .001	0.932	**0.047**	**0.62**	**0.89**	0.131 (0.106-0.156)	.87
	623	197.057	< .001	0.919	**0.054**	**0.54**	**0.85**	0.126 (0.106-0.147)	.83

Table S2 continues

Table S2

Table S2 continued

No.	*n*	s. χ^2	s. *p*	r. CFI	SRMR	AVE	CR	r. RMSEA (r. CI)	α
					10 items (s. *df* = 35)				
31	329	116.924	< .001	0.912	**0.053**	0.50	**0.88**	0.116 (0.095-0.137)	.86
	525	244.794	< .001	0.899	**0.060**	**0.51**	**0.89**	0.127 (0.111-0.143)	.87
	623	226.369	< .001	0.910	**0.053**	0.50	**0.89**	0.116 (0.102-0.130)	.87
32	329	434.577	< .001	0.704	0.107	**0.53**	**0.88**	0.244 (0.221-0.267)	.86
	525	551.121	< .001	0.778	0.102	**0.58**	**0.93**	0.213 (0.194-0.232)	.87
	623	731.458	< .001	0.733	0.111	**0.51**	**0.90**	0.212 (0.196-0.228)	.85
33	329	142.215	< .001	0.832	**0.076**	0.42	**0.84**	0.137 (0.114-0.161)	.80
	525	248.927	< .001	0.836	**0.076**	0.44	**0.86**	0.142 (0.123-0.162)	.81
	623	344.196	< .001	0.798	0.084	0.39	**0.84**	0.142 (0.126-0.159)	.78
34	329	151.314	< .001	0.904	**0.059**	**0.54**	0.90	0.129 (0.108-0.150)	.89
	525	350.255	< .001	0.886	**0.066**	**0.56**	0.92	0.144 (0.128-0.159)	.89
	623	324.187	< .001	0.897	**0.059**	**0.54**	0.91	0.133 (0.119-0.147)	.89
35	329	237.668	< .001	0.804	0.093	0.44	**0.85**	0.157 (0.135-0.180)	.81
	525	389.093	< .001	0.798	0.084	0.48	**0.88**	0.170 (0.152-0.188)	.83
	623	459.068	< .001	0.785	0.096	0.43	**0.88**	0.162 (0.146-0.179)	.81
36	329	205.882	< .001	0.804	0.082	0.47	**0.86**	0.170 (0.149-0.192)	.84
	525	337.071	< .001	0.836	**0.075**	**0.53**	**0.89**	0.168 (0.150-0.187)	.85
	623	403.703	< .001	0.785	0.087	0.46	**0.86**	0.171 (0.156-0.187)	.82
37	329	116.924	< .001	0.912	**0.053**	0.50	**0.88**	0.116 (0.095-0.137)	.86
	525	244.794	< .001	0.899	**0.060**	**0.51**	**0.89**	0.127 (0.111-0.143)	.87
	623	226.369	< .001	0.910	**0.053**	0.50	**0.89**	0.116 (0.102-0.130)	.87
38	329	365.956	< .001	0.743	0.095	**0.55**	**0.88**	0.230 (0.207-0.253)	.86
	525	477.231	< .001	0.800	0.090	**0.58**	0.92	0.203 (0.184-0.222)	.87
	623	570.252	< .001	0.748	0.106	**0.51**	0.90	0.201 (0.185-0.218)	.84
39	329	133.622	< .001	0.861	**0.065**	**0.54**	**0.86**	0.164 (0.136-0.192)	.84
	525	137.657	< .001	0.930	**0.046**	**0.58**	**0.88**	0.119 (0.098-0.141)	.86
	623	215.24	< .001	0.913	**0.053**	0.50	**0.84**	0.118 (0.101-0.136)	.82

Note. s – scaled; r – robust; AVE – average variance extracted; CR – construct reliability, CI – confidence interval. The indicators that conform to the selection criteria are presented in bold.

Appendix A

DOS-RULS

Instrucciones: Indicá la frecuencia con que cada una de las afirmaciones te describe

		Frecuentemente	Algunas veces	Raras veces	Nunca
1	Me siento cercano/a a algunas personas				
2	Puedo encontrar compañía cuando la necesito				
3	Hay personas que realmente me comprenden				
4	Hay personas con las que puedo hablar y comunicarme				
5	Hay personas a las que puedo recurrir				

Note. This text is based on a modification of the article "RULS: Escala de Soledad UCLA Revisada. Fiabilidad y validez de una versión española" [RULS: Revised UCLA Loneliness Scale. Reliability and validity of a Spanish version] by Vázquez Morejón, A. J., & Jiménez García-Bóveda, R. (1994). The original work is available at http://hdl.handle.net/10045/97430 and is licensed under CC BY 4.0 (https://creativecommons.org/licenses/by/4.0/).

Appendix B

DOS-RULS

Directions: Indicate how often you feel the way described in each of the following statements

		Often	Sometimes	Rarely	Never
1	There are people I feel close to				
2	I can find companionship when I want it				
3	There are people who really understand me				
4	There are people I can talk to				
5	There are people I can turn to				

Note. This scale is based on the items, items' scale, and directions of the Revised UCLA Loneliness Scale from Russell, D., Peplau, L. A., & Cutrona, C. E. (1980). The revised UCLA Loneliness Scale: Concurrent and discriminant validity evidence. *Journal of Personality and Social Psychology, 39*, 472–480. https://doi.org/10.1037/0022-3514.39.3.472