

Longitudinal, representative studies on mental health consequences of the COVID-19 pandemic

This regularly updated table presents studies investigating mental health burden of the COVID-19 pandemic in the general population as well as in other target groups. The studies presented in the table were selected according to the following criteria:

All studies are required to

- report a measure of mental health assessed with a validated measurement tool;
- provide a longitudinal study design (several assessments of the same individuals);
- provide a comparison between values assessed before and after the beginning of the COVID-19 pandemic;
- provide a sample size > 1000.
- Studies in the general population are required to provide a representative sample of the population in the respective country.

These selection criteria are employed to ensure a high quality of the presented data.

The last two columns present the reported statistics for the change between values assessed before and during the pandemic and the direction of this change (increase, decrease, or stability of the respective variable) in a simplified way.

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No.	Study: author (journal, online first)	Country	Population	Study design	N	Comparison	Reported variable (assessment tool, scale range)	Reported change (values) ^a	Reported change (direction)
General population									
1	Breslau J. et al. (Prev Med., 2020 Dec 12)	USA	General Population	Longitudinal (representative)	1870	05/2020 and 02/2019	Psychological distress (K-6, 0-24))	10.9% vs. 10.1% above cut-off (>12)	=
2	Oksanen A. et al. (Alcohol Alcohol., 2020 Nov 07)	Finland	General population	Longitudinal (representative)	1081	03-04/2020 and 09-10/2019	Alcohol consumption (AUDIT-C, 0-12)	3.71 vs. 3.69	=
3	Peters A. et al. (Dtsch Arztebl Int, 2020 Dec 11)	Germany	General population	Longitudinal (representative)	113928	04-05/2020 and 2014-2019	Depression (PHQ-9, 0-27)	MD=0.38	↑
							Anxiety (GAD-7, 0-21)	MD=0.36	↑

							Stress (PHQ-Stress, 0-20)	MD=1.14	↑
4	Pierce M. et al. (Lancet Psychiatry, 2020 Jul 21) ^b	UK	General population	Longitudinal (representative)	17452	03/2020 and 2018, 2019	Psychological distress (GHQ-12, 0-36)	Adjusted MD=0.48	↑
5	Sibley CG. et al. (Am Psychol, 2020 Jun 04)	New Zealand	General population	Longitudinal (representative)	1003	03-04/2020 and 10/2019	Psychological distress (K-6, 0-4)	d=0.12	↑
							Social support (3 items [Cutrona & Russell, 1987], 1-7)	5.93 vs. 5.99	=
							Life satisfaction (2 items [Diener et al., 1985], 1-7)	5.31 vs. 5.24	=
6	Van der Velden PG. et al. (J Affect Disord., 2020 Aug 08)	Netherlands	General population	Longitudinal (representative)	3983	03/2020 and 11/2018, 03/2019, 11/2019	Anxiety and depression (MHI-5, 0-100 ^c)	74.5 / 74.2 / 74.2 vs. 74.1	=
							Lack of social support (SSL-D, NR)	d=0.06	↑
Patients									
7	Pan KY. et al. (Lancet Psychiatry, 2020 Dec 08)	Netherlands	People with (n=1181) and without (n=336) depressive, anxiety, or obsessive compulsive disorders	Longitudinal	1517	04-05/2020 and 2006-2016	Depression (QIDS, 0-27)	$\beta=0.26$ (95% CI: 0.07, 0.44); 0 lifetime mental disorder ^d : MD=0.82; 1 lifetime mental disorder: MD=0.28; 5-6 lifetime mental disorders: MD=-0.90	Overall: ↑; 0 lifetime mental disorder: ↑; 1 lifetime mental disorder: ↑; 5-6 lifetime mental disorders: ↓
							Anxiety (BAI, 0-63)	$\beta=0.10$ (95% CI: -0.25, 0.45); 0 lifetime mental disorder: MD=0.48; 1 lifetime mental disorder: MD=0.43 5-6 lifetime mental disorder: MD=-1.36	Overall: =; 0 lifetime mental disorder: ↑; 1 lifetime mental disorder: ↑; 5-6 lifetime mental disorders: ↓

							Worry (PSWQ, 16-80)	$\beta=0.66$ (95% CI: 0.25, 1.07); 0 lifetime mental disorder: MD=2.11; 1 lifetime mental disorder: MD=0.62 5-6 lifetime mental disorders: MD=-1.92	Overall: ↑; 0 lifetime mental disorder: ↑; 1 lifetime mental disorder: ↑; 5-6 lifetime mental disorders: ↓
							Loneliness (DJGLS, 0-6)	$\beta=0.22$ (95% CI: 0.11, 0.33); 0 lifetime mental disorder: MD=0.48; 1 lifetime mental disorder: MD=0.31 5-6 lifetime mental disorders: MD=-0.17	Overall: ↑; 0 lifetime mental disorder: ↑; 1 lifetime mental disorder: ↑; 5-6 lifetime mental disorders: ↓

Notes.

^a first value refers to assessment before the COVID-19 pandemic, second value to the assessment during the COVID-19 pandemic.

^b identical study reported by Niedzwiedz CL. et al., Daly M. et al.

^c higher values indicate less symptoms of anxiety and depression.

^d pre-existing mental disorders, refers to all reported data on lifetime mental disorders in this study

↑ increase; ↓ decrease; = no change.

d (Cohen's d): effect size (0.2-small effect, 0.5-moderate effect, 0.8-large effect); MD: mean difference; N: sample size; NR: not reported; vs.: versus

Abbreviations (assessment tools):

AUDIT-C: Alcohol Use Disorders Identification Test; BAI: Beck Anxiety Inventory; DJGLS: De Jong Gierveld Loneliness Scale; GAD-7: Generalized Anxiety Disorder-7; GHQ-12: General Health Questionnaire-12; K-6: Kessler-6 Distress-Scale; MHI-5: Mental Health Index-5; PHQ: Patient Health Questionnaire; PSWQ: Penn State Worry Questionnaire; QIDS: Quick Inventory of Depressive Symptoms; SSL-D: Social Support List - Discrepancy

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