

Resilience, mental health and risk and protective factors in the corona pandemic

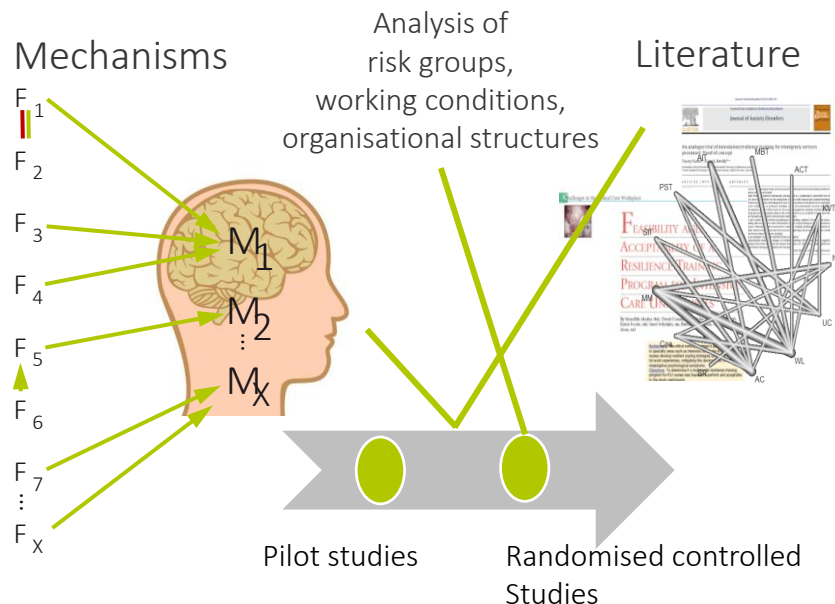
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Translational understanding of resilience mechanisms (animal models/human studies)



Develop interventions



Transfer into society

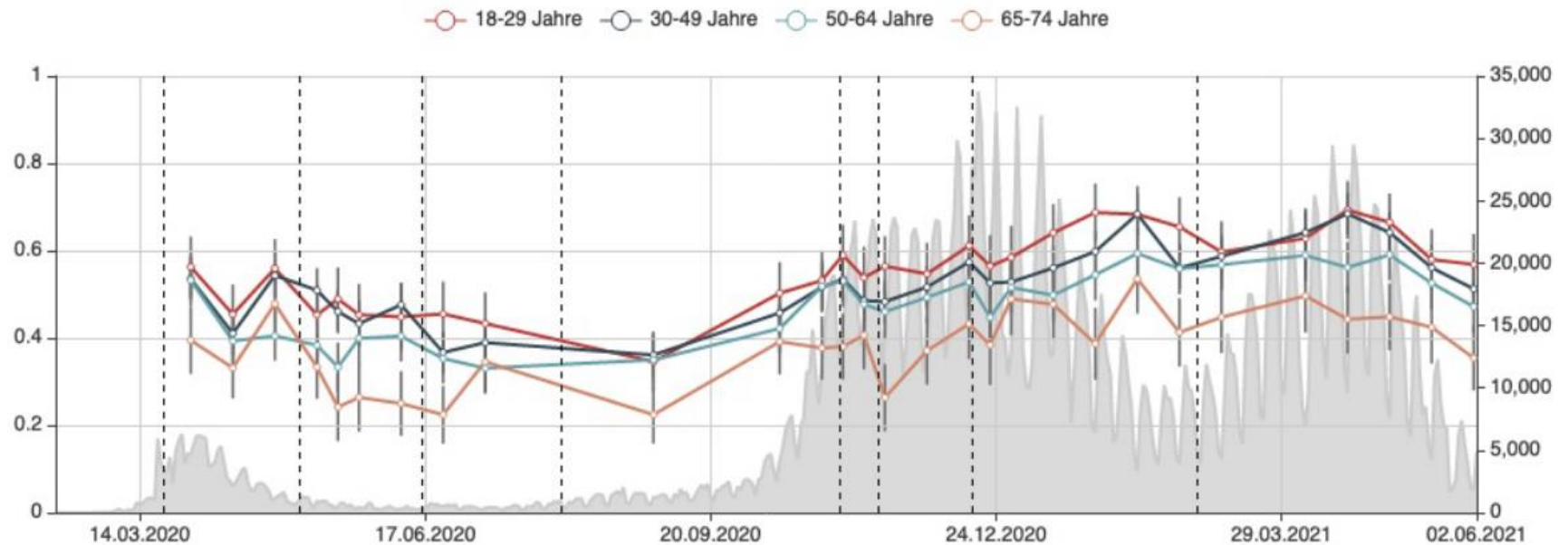


Resilience & Society

Making knowledge accessible to the population
Resilience outpatient clinic etc.

- **Stressors due to pandemic:**
 - Fear of becoming infected oneself or relatives (possible development of dysfunctional anxiety associated with the coronavirus)
- **Infection control measures (e.g. lockdown):**
 - Fewer social contacts
 - Abandonment of leisure activities, sports
- **Closure of educational institutions:**
 - Loss of social contacts, of reference persons.
 - Increased media consumption, lack of exercise.
 - Educational deficits are indirectly associated with an increased risk of psychological stress/diseases.
- **Unemployment/financial worries:**
 - Increased risk of mental stress/disease
 - Increased risk of suicide (?)
- **Stressors in family structures:**
 - Homeschooling
 - Working from home
 - Addiction, domestic violence
- **Various other stressors:**
 - Media coverage
 - Particularly stressful also not being able to visit relatives in hospital and attend funerals

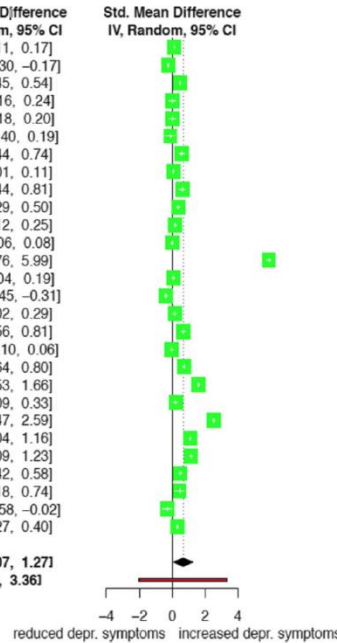
Personal situational burdens during the pandemic in different age classes



Kunzler et al., Global. Health (2021)

Study	COVID-19			pre-COVID-19			Std. Mean Difference IV, Random, 95% CI	Std. Mean Difference IV, Random, 95% CI
	Total	Mean	SD	Total	Mean	SD		
Bauerle 2020 (PHQ-2)	15037	1.14	1.5300	5010	0.94	1.2000	0.14 [0.11, 0.17]	
Chang 2020 (PHQ-9)	3881	2.45	3.5200	1045	3.30	4.0000	-0.23 [-0.30, -0.17]	
Gonzalez-Sanguino 2020 (PHQ-2)	3480	1.60	1.5000	5010	0.94	1.2000	0.50 [0.45, 0.54]	
Guo 2020 (non-infected controls; PHQ-9)	103	3.46	4.5410	1045	3.30	4.0000	0.04 [-0.16, 0.24]	
Hao F 2020 (controls; DASS-21 depression)	109	2.20	3.5000	13208	2.17	3.2600	0.01 [-0.18, 0.20]	
Iasevoli 2020 (caregivers; PHQ-9)	51	4.20	3.2000	339	4.73	5.2600	-0.10 [-0.40, 0.19]	
Iasevoli 2020 (controls; PHQ-9)	205	6.20	4.5000	1200	3.90	3.8000	0.59 [0.44, 0.74]	
Lei 2020 (SDS)	1593	37.14	11.3700	18994	36.64	7.5900	0.06 [0.01, 0.11]	
Ma 2020 (DASS-21 depression)	123	4.20	2.3000	1815	2.30	3.1000	0.62 [0.44, 0.81]	
Mazza 2020 (DASS-21 depression)	2766	5.34	4.8100	417	3.50	3.2000	0.40 [0.29, 0.50]	
McKay 2020 (DASS-21 depression)	908	2.77	3.2100	13208	2.17	3.2600	0.18 [0.12, 0.25]	
Odriozola-Gonzalez 2020 (DASS-21 depression)	2530	5.52	4.9200	1055	5.45	7.1200	0.01 [-0.06, 0.08]	
Olagoke 2020 (PHQ-2)	501	1.92	0.9300	11109	0.78	0.0200	5.88 [5.76, 5.99]	
Ozdin 2020 (HADS depression)	343	6.70	4.2000	2102	6.43	3.4100	0.08 [-0.04, 0.19]	
Sakib 2020 (PHQ-9)	8550	7.43	5.0600	897	9.40	6.2470	-0.38 [-0.45, -0.31]	
Satici 2020 (DASS-21 depression)	1304	3.86	4.1900	250	3.23	3.0400	0.16 [0.02, 0.29]	
Soraci 2020 (HADS depression)	249	8.90	3.6000	21644	5.90	4.4000	0.68 [0.56, 0.81]	
Tan W 2020 (DASS-21 depression)	673	2.10	4.5000	13208	2.17	3.2600	-0.02 [-0.10, 0.06]	
Tian 2020 (SCL-90 depression)	1060	1.96	0.7000	1388	1.50	0.5900	0.72 [0.64, 0.80]	
Tsipropoulou (Greece, GAD-7)	2970	14.70	4.5100	2271	7.25	4.8550	1.60 [1.53, 1.66]	
Tull (USA, DASS-21)	500	7.51	9.0000	499	5.70	8.2000	0.21 [0.09, 0.33]	
Voitsidis 2020 (PHQ-2)	2427	4.17	1.4200	5010	0.94	1.2000	2.53 [2.47, 2.59]	
Wang C 2020b (1st survey; DASS-21 depression)	1210	6.30	7.2000	13208	2.17	3.2600	1.10 [1.04, 1.16]	
Wang C 2020b (2nd survey; DASS-21 depression)	861	6.40	7.4000	13208	2.17	3.2600	1.16 [1.09, 1.23]	
Wang Y 2020 (SDS)	600	40.50	11.3100	18994	36.64	7.5900	0.50 [0.42, 0.58]	
Yuan R 2020 (child hosp. pand.; HADS depression)	50	7.72	2.8100	8284	5.80	4.2000	0.46 [0.18, 0.74]	
Yuan R 2020 (child not hosp. pand.; HADS depressi)	50	4.54	2.5600	8284	5.80	4.2000	-0.30 [-0.58, -0.02]	
Zhou SJ 2020 (PHQ-9)	8079	5.13	5.6090	1045	3.30	4.0000	0.34 [0.27, 0.40]	
Total	60213			183747			0.67 [0.07, 1.27]	
Prediction interval							[-2.02, 3.36]	

Heterogeneity: Tau² = 1.79; Chi² = 16430.33, df = 27 (P = 0); I² = 100%
Test for overall effect: Z = 2.20 (P = 0.03)

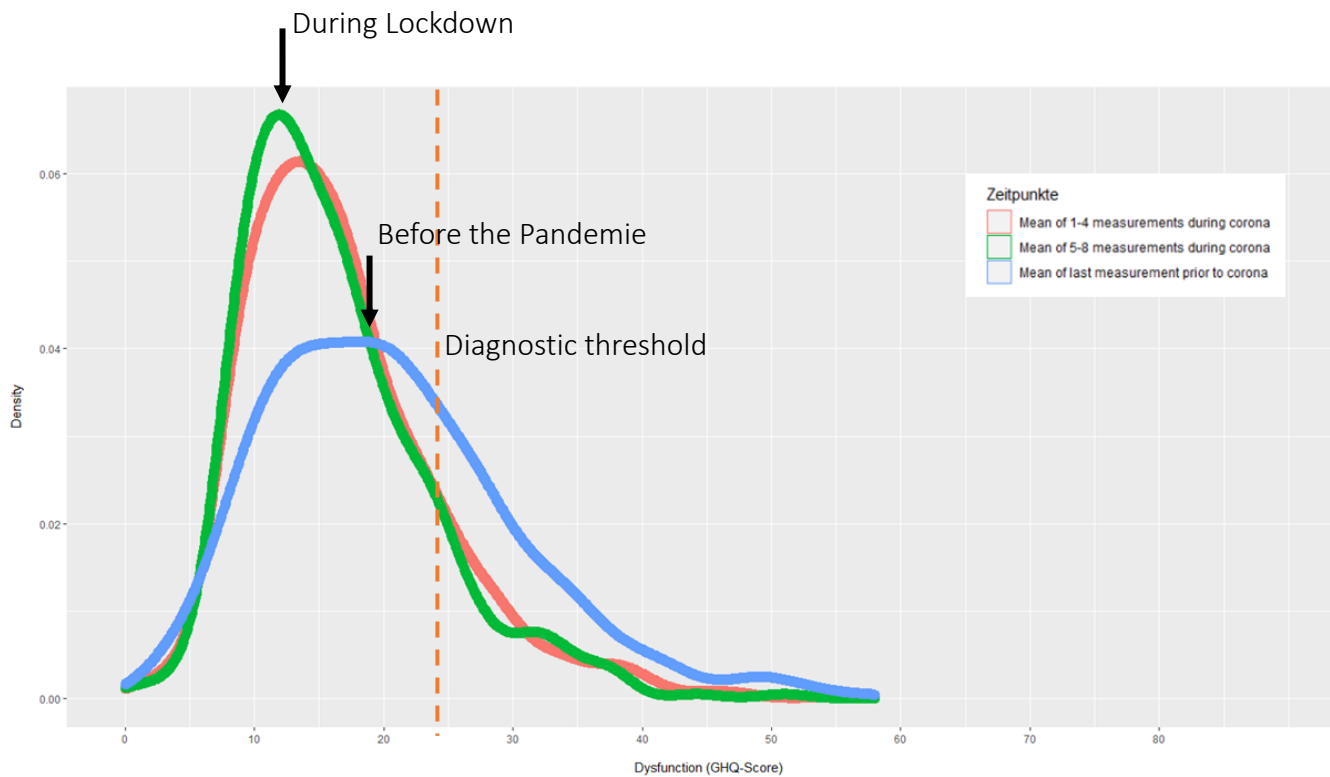


Results:

- 104 studies on mental burden of the 1st wave of the pandemic (>200,000 TN)
- Significantly increased depressive and anxiety symptoms during the 1st wave of the pandemic in the general population (effect size 0.4 and 0.67, respectively) (compared to pre-pandemic data)
- Health workers: Increased stress levels, but no indication of increased psychological distress in the 1st wave of the pandemic.

Longterm study before and during the Corona Pandemic:

Significantly fewer symptoms of psychological stress (n = 500), measured using the "General Health Questionnaire" (GHQ)



➤ Risk factors:

- Extensive media consumption
- constant rumination about the virus and the pandemic
- worries about personal consequences of the pandemic
- previous mental illness, female gender

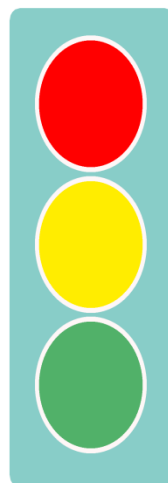
➤ Protective factors:

- Maintaining a daily structure (incl. exercise, nutrition, sleep)
- positive reappraisal style, i.e. the ability to see something positive in the crisis or to see a chance in it.
- older age
- good financial situation
- high level of education

Behavioral and situational prevention offers at the LIR



Online Resilienz-
Screening
(10-15 min)



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