

Pandémie COVID-19 & Santé Mentale des Jeunes

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Webinaire – 22 juin 2023

Pandémie COVID-19 et santé mentale des jeunes

- COVID-19, stress et adaptation psycho-biologique
- Pandémie et impact sur la santé mentale des jeunes
- SARS-CoV-2 et santé mentale
- Quelques éléments narratifs « de terrain »

De l'infection COVID-19 à la souffrance psychosociale

Quantifying impacts of the COVID-19 pandemic through life-expectancy losses: a population-level study of 29 countries

José Manuel Aburto ^{1,2,3,4,*†} Jonas Schöley ^{3,4†} Ilya Kashnitsky ³
Luyin Zhang ^{1,5} Charles Rahal ^{1,2} Trifon I Missov ³
Melinda C Mills ^{1,2} Jennifer B Dowd ^{1,2} and Ridhi Kashyap ^{1,2†}

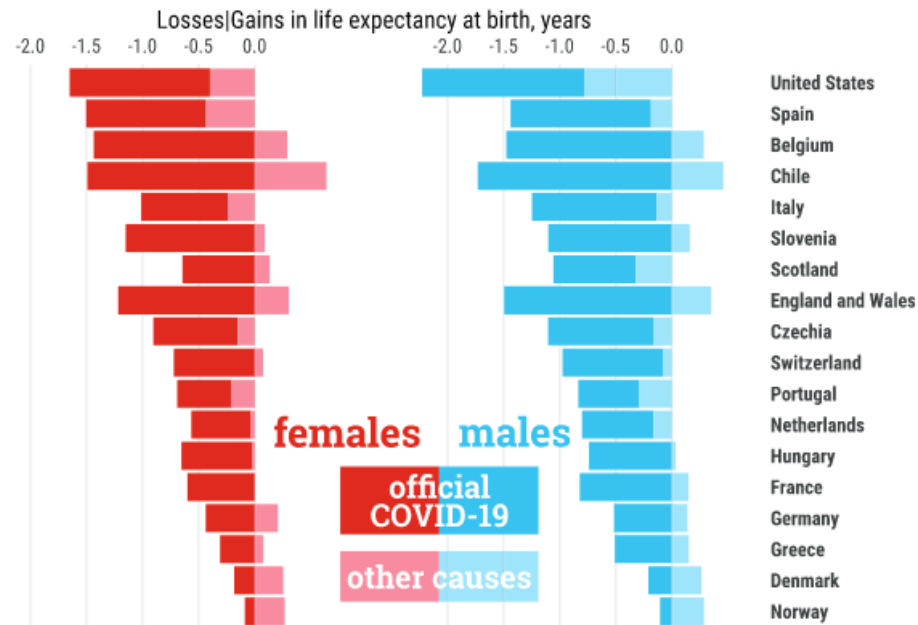
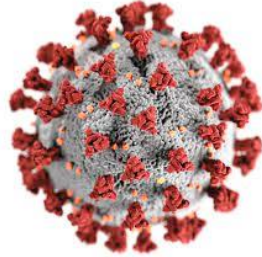
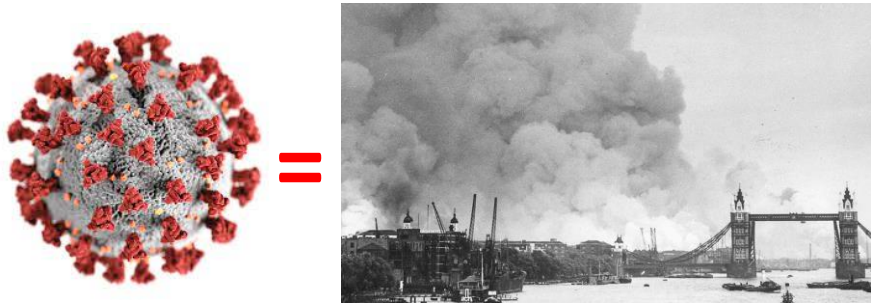


Figure 5 Contributions (in years) to changes in life expectancy at birth from 2019 to 2020 attributable to official COVID-19 deaths and remaining causes of death. Countries are sorted from largest to smallest losses. The sum of both components adds to the total change from 2019 to 2020 in a given country. All data points are provided in a table in [Supplementary File 3](#), available as [Supplementary data](#) at *IJE* online .

De l'infection COVID-19 à la souffrance psychosociale

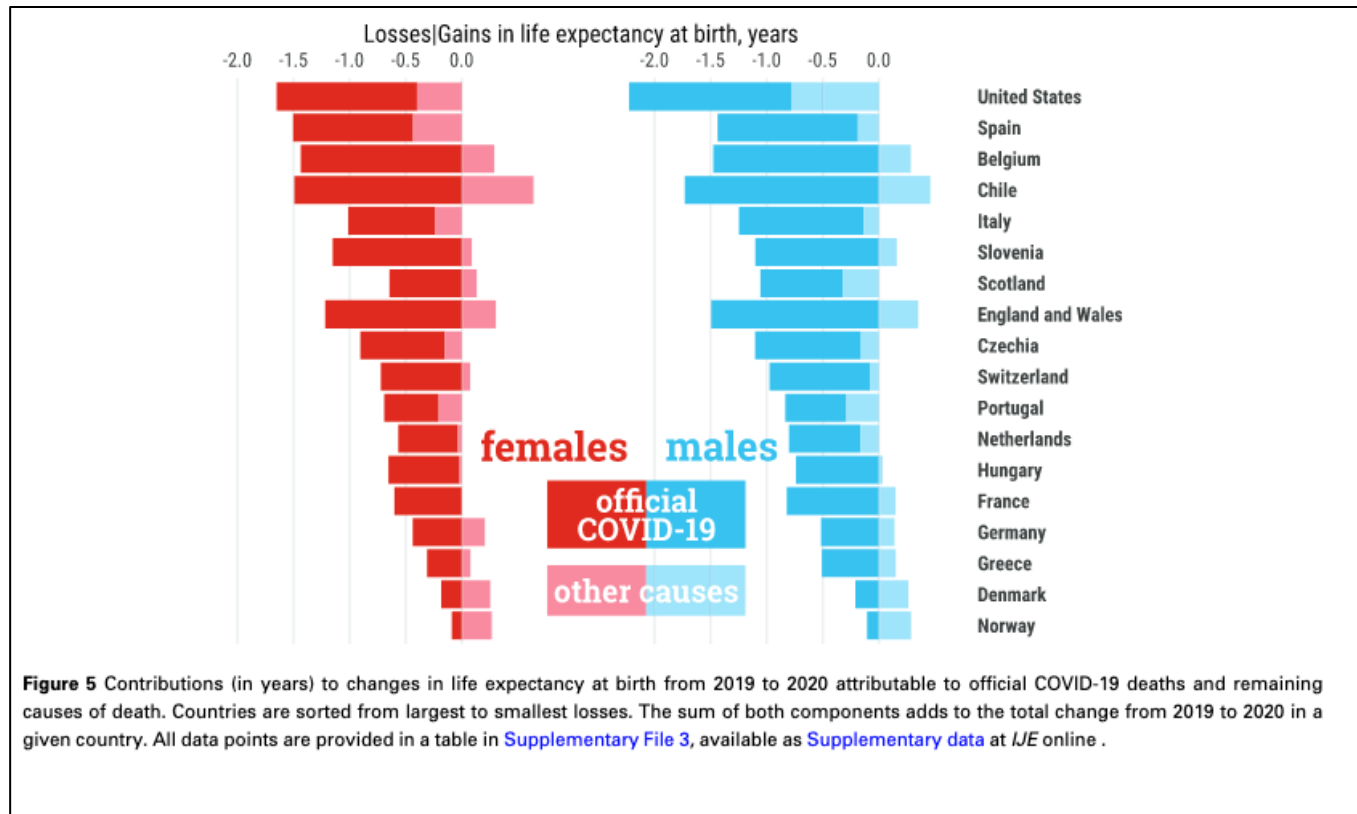
Quantifying impacts of the COVID-19 pandemic through life-expectancy losses: a population-level study of 29 countries

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COVID-19 and the Blitz compared: mental health outcomes in the UK

Edgar Jones



Panel: Risk factors for mental illness

Aerial bombing

- Mortality (60 595 civilians, or 0.15% of the prewar population)⁶³ and wounding
- Bombing of homes leading to overcrowding, homelessness, and poor-quality housing
- Targeted air raids on industrial and commercial premises leading to loss of businesses and need to seek alternative employment
- Temporary closure of schools because of damage to buildings or evacuation
- Diversion of college buildings to other uses such as hospitals, military training, and government offices

COVID-19

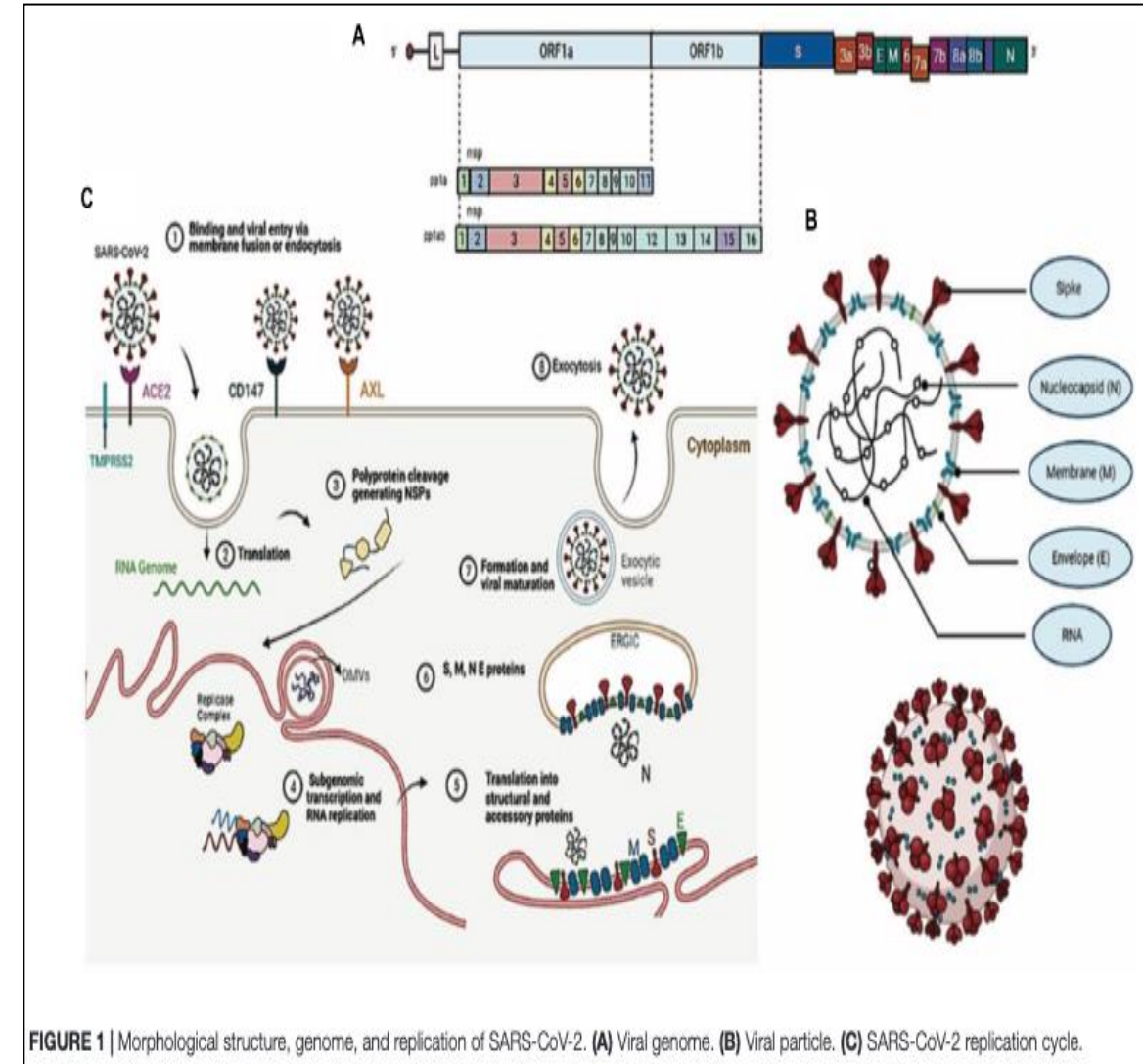
- Mortality (124 025 or 0.15% of the population)⁶⁴ and severe infection
- Social isolation as a result of lockdown and distancing measures
- Loss of livelihoods due to restrictions on trading and movement of customers and goods to inhibit transmission of virus
- Temporary closure of schools to restrict social interaction
- Closure of university campuses to restrict social interaction

De l'infection COVID-19 à la souffrance psychosociale

The Complexity of SARS-CoV-2 Infection and the COVID-19 Pandemic

Maria Karoliny da Silva Torres^{1,2}, Carlos David Araújo Bichara^{1,2},
Maria de Nazaré do Socorro de Almeida^{2,3}, Mariana Cayres Vallinoto^{1,4},
Maria Alice Freitas Queiroz^{1,2}, Izaura Maria Vieira Cayres Vallinoto¹,
Eduardo José Melo dos Santos^{2,3}, Carlos Alberto Marques de Carvalho⁵ and
Antonio Carlos R. Vallinoto^{1,2*}

da Silva Torres MK et al. Front Microbiol. 2022 ;13:789882.



De l'infection COVID-19 à la souffrance psychosociale

- Virus émergeant en 2019
- ***Données à considérer avec prudence : « de la nuance et de la complexité »***
- Impact global et différencié au niveau planétaire

Overview of behavioural and psychological consequences of COVID 19

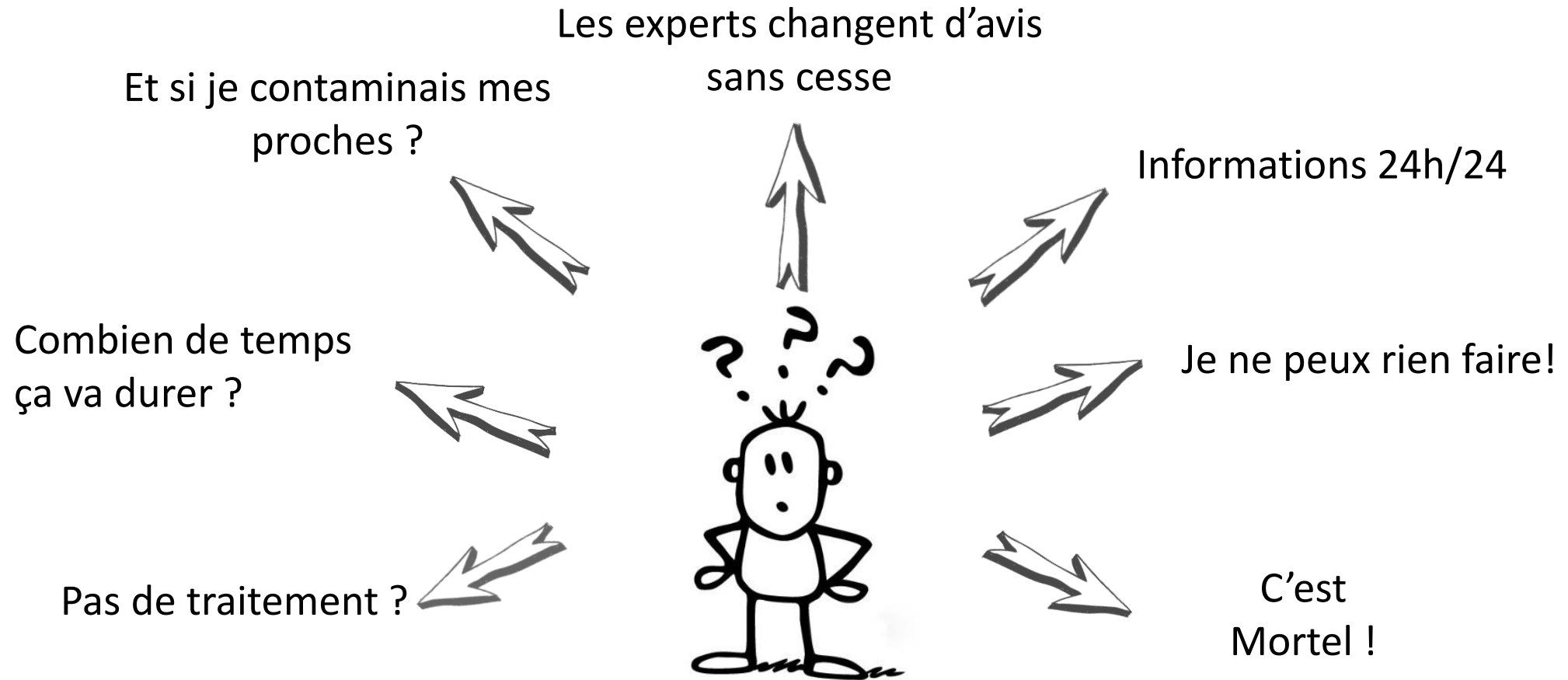
Kevin Kendrick^a and Mohan Isaac^{b,c}

Kendrick K and Isaac M. Curr Opin Psychiatry. 2021 ;34(5):477-484

KEY POINTS

- The COVID pandemic has been associated with raised symptoms of anxiety/depression cross-culturally.
- Predictions that suicide rates will rise globally have not yet been supported by robust data.
- Misinformation or conspiratorialism has influenced responses across much of the world, often taking on racial overtones.
- In Africa, COVID is one of several coexisting crises, with disproportionate long-term gendered and economic impacts.
- In South America, responses have been disparate and linked to local political factors.

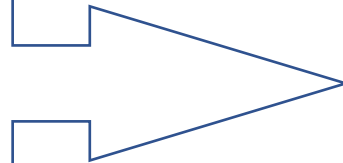
De l'infection COVID-19 à la souffrance psychosociale



Impact général du confinement

Facteurs de stress

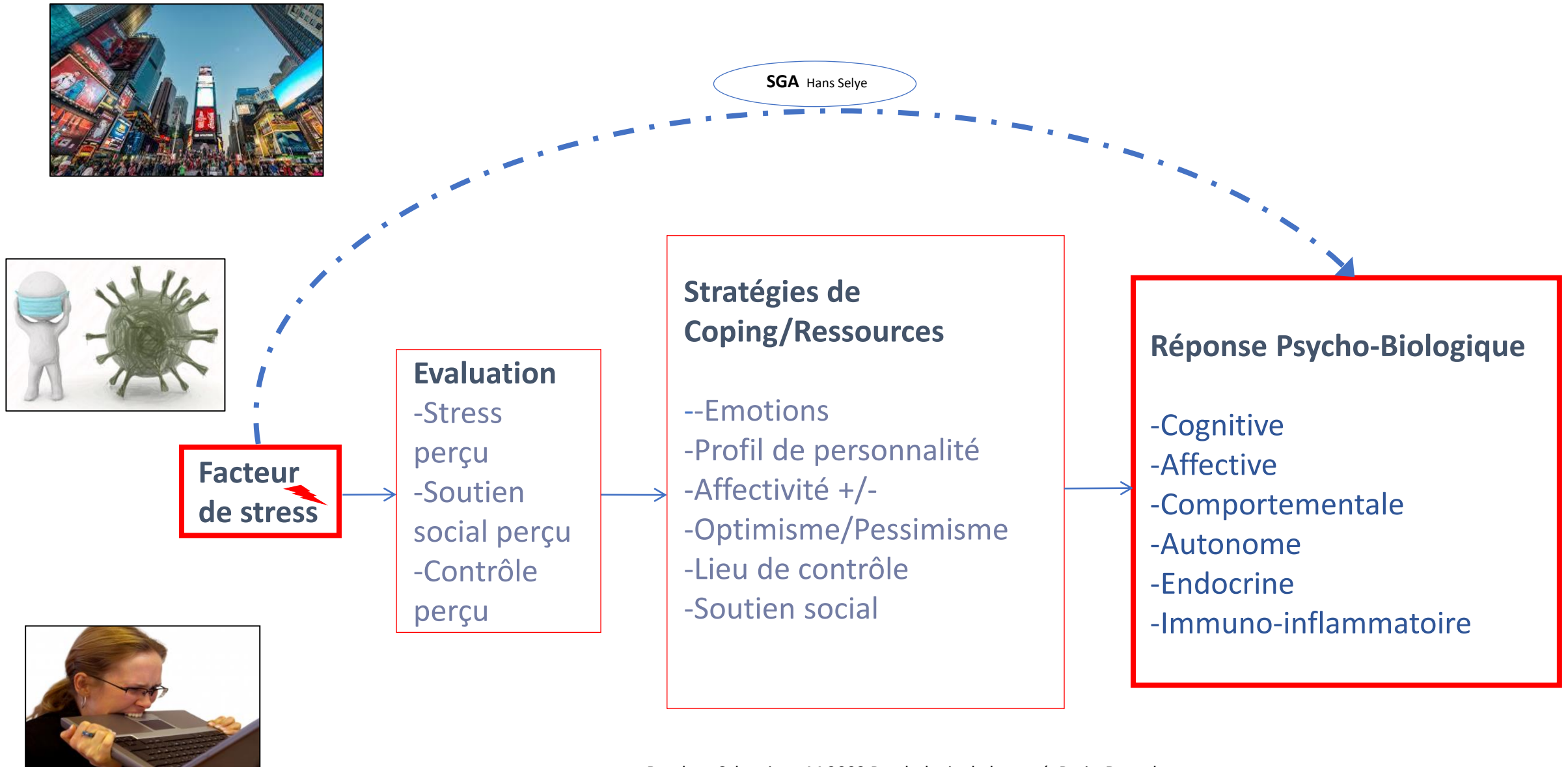
- Frustration et ennui
- Accès limité aux ressources
- Crainte de la contamination
- Durée incertaine
- Pertes financières
- Informations insuffisantes



Impact psychologique

- Anxiété
- Tristesse
- Colère
- Incertitude
- Frustration
- Peur
- Ennui

Stress, stratégies d'adaptation et santé

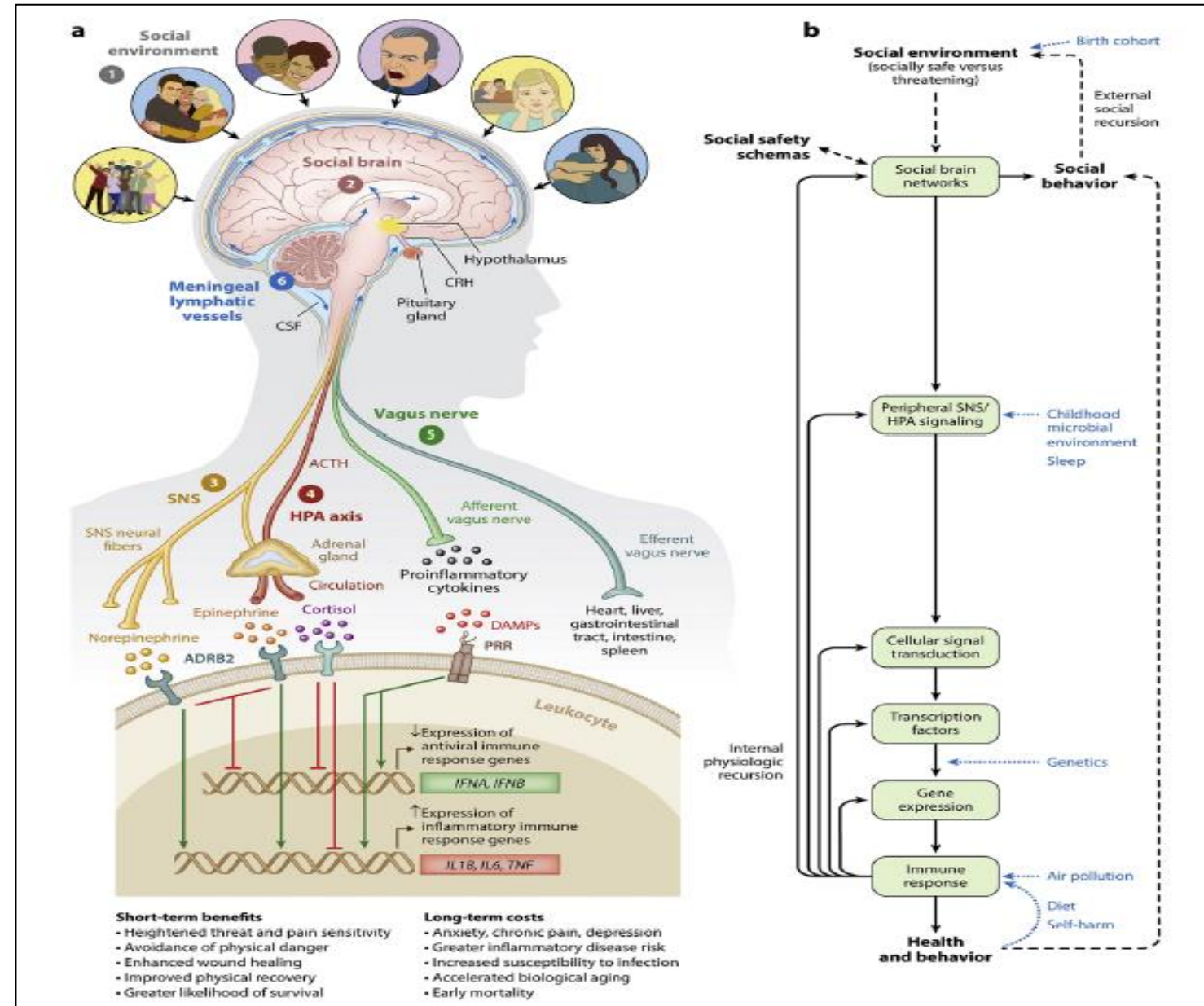


Crise sanitaire COVID-19 et conséquences psychiques

Social Safety Theory: Understanding social stress, disease risk, resilience, and behavior during the COVID-19 pandemic and beyond

George M. Slavich

Slavich GM. Curr Opin Psychol. 2022 ;45:101299.



Pandémie COVID-19 et santé mentale des jeunes

- **COVID-19, stress et adaptation psycho-biologique**
- **Pandémie et impact sur la santé mentale des jeunes**
- **SARS-CoV-2 et santé mentale**
- **Quelques éléments narratifs « de terrain »**

COVID-19 et conséquences psychiques

Santé mentale et Covid : toutes et tous concernés. Une revue narrative

Mental health during the Covid pandemic, a narrative review

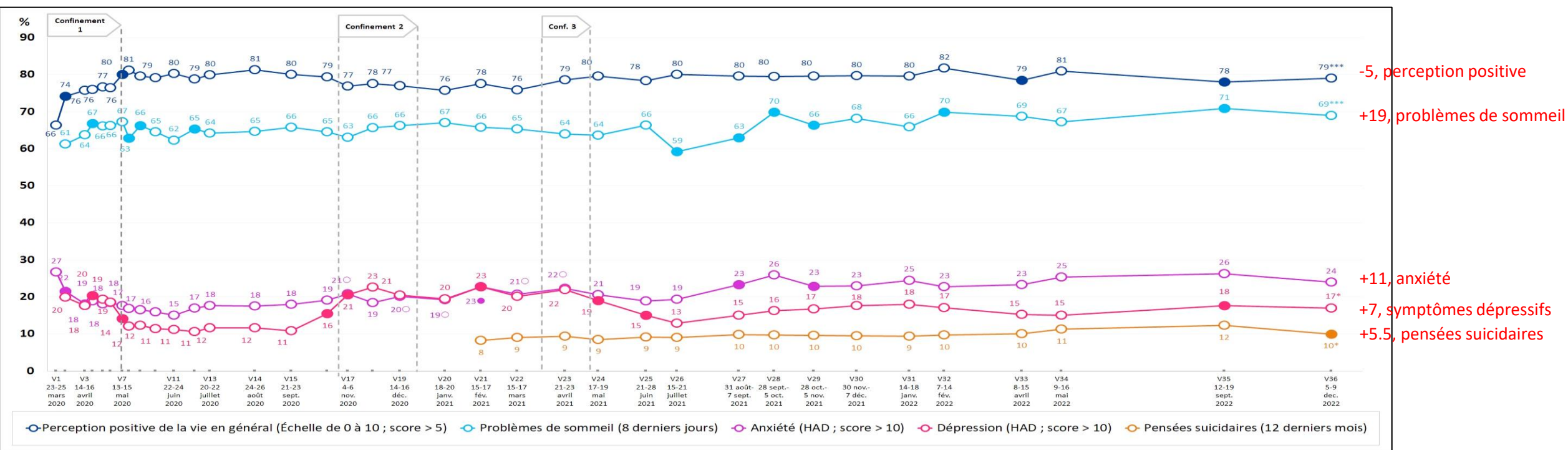
Jasmina Mallet ^{a,b,c,*}, Célie Massini ^d, Julien Dubreucq ^e, Romain Padovani ^f,
Guillaume Fond ^{c,g}, Sélim Benjamin Guessoum ^h

Mallet J et al. Ann Med Psychol (Paris). 2022 ;180(7):707-712.

- Dégradation de la santé mentale en général

- Enquête CoviPrev 2000 personnes suivies depuis mars 2020

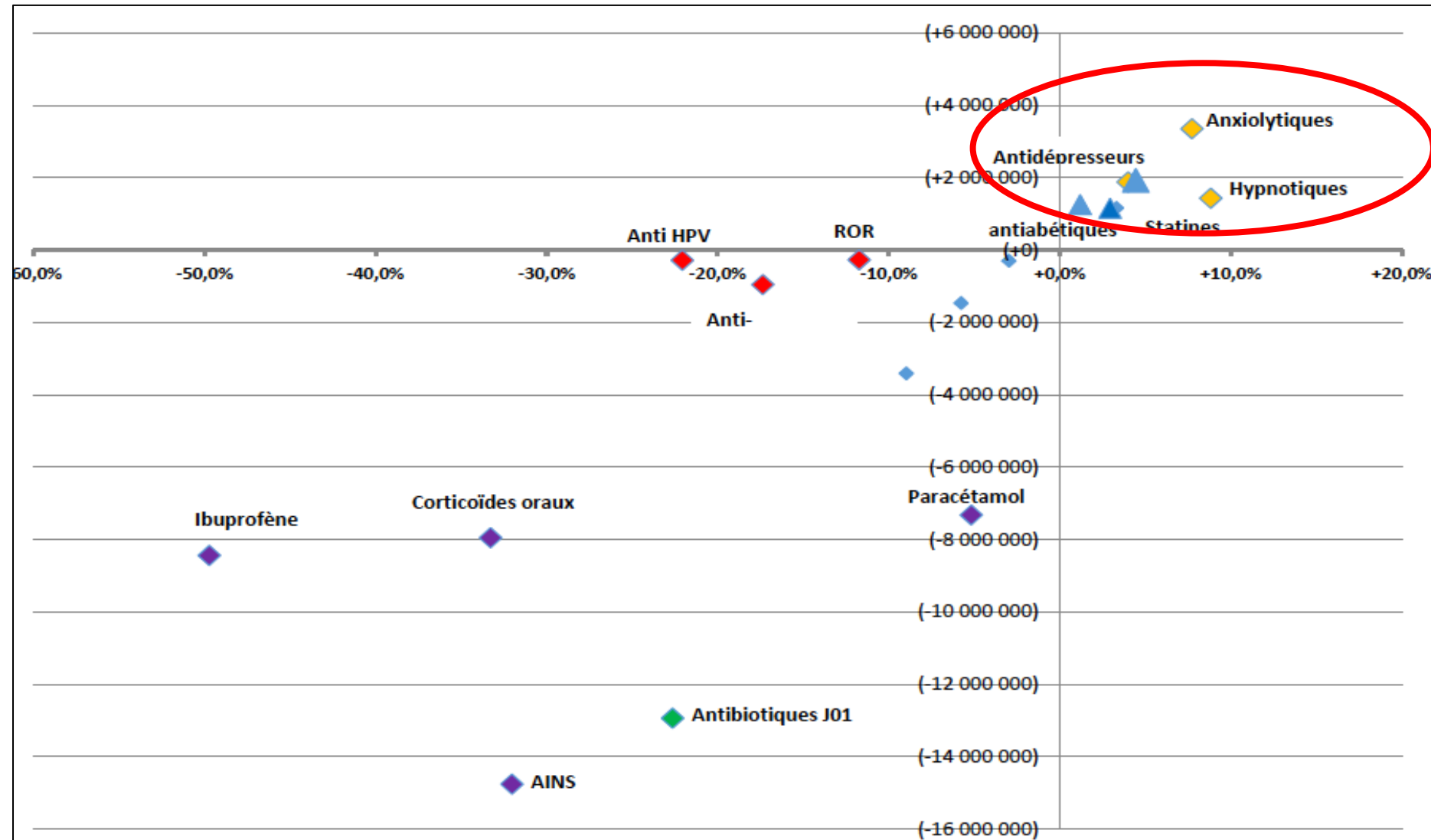
Variation vs. hors épidémie



Crise sanitaire COVID-19 et conséquences psychiques

Data fichier SNDS
prescriptions d'officines de
ville en France

6 milliards de prescriptions
pour 51,6 millions de
personnes affiliées au régime
général suivies durant 141
semaines 2018-2021



Crise sanitaire COVID-19 et conséquences psychiques

Impact of COVID-19 pandemic and lockdowns on the consumption of anxiolytics, hypnotics and antidepressants according to age groups: a French nationwide study

M. Levaillant^{1,2}, M. Wathelet^{3,4,5}, A. Lamer¹, E. Riquin^{6,7,8}, B. Gohier^{9,10} and J.-F. Hamel-Broza^{2,11}

Levaillant M et al. Psychol Med. 2021 :1-7.

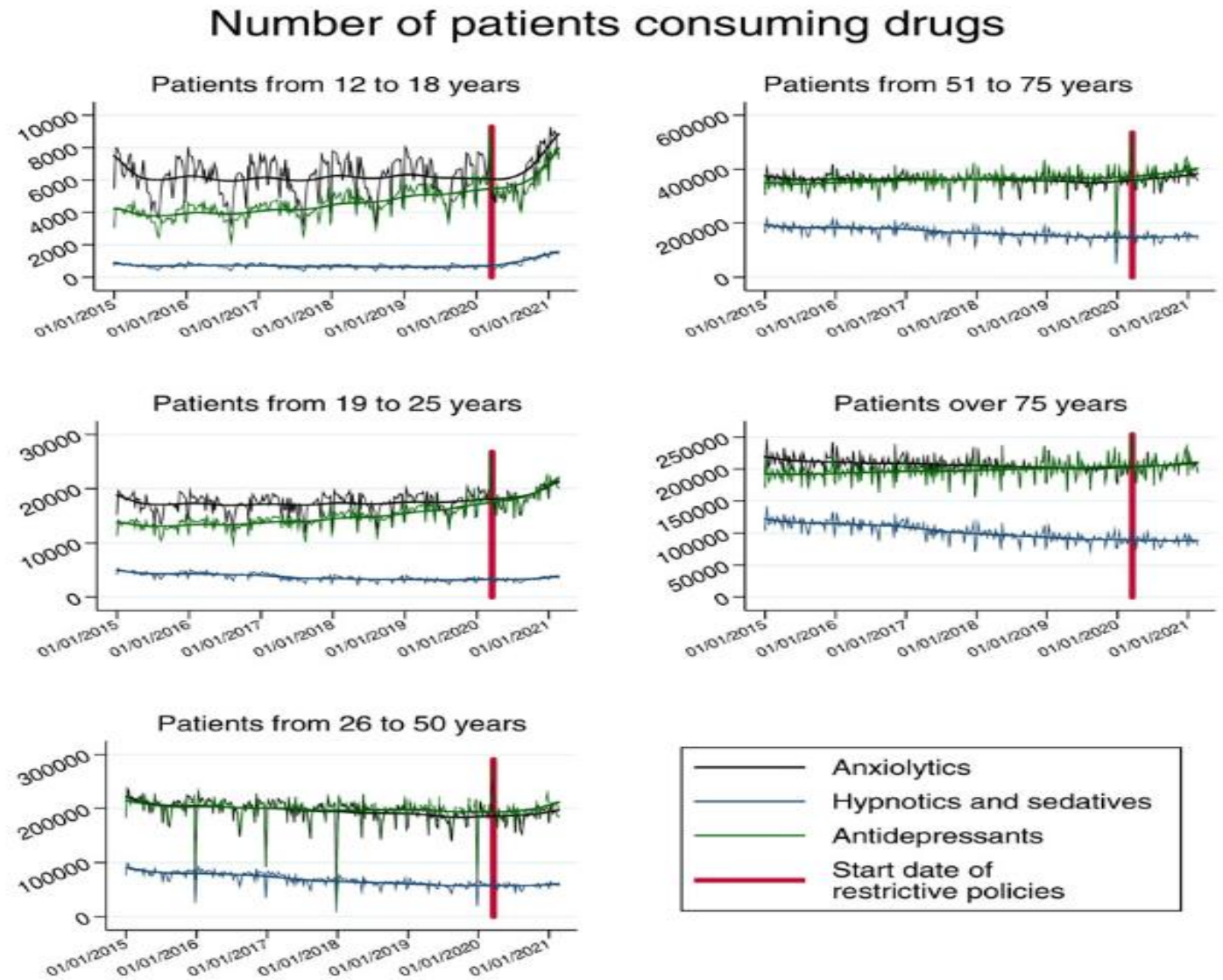


Fig. 1. Evolution of weekly drug consumers from 1 January 2015 to 28 February 2021, according to age group and drug considered.

COVID-19 et conséquences psychiques

The Psychiatric Sequelae of the COVID-19 Pandemic in Adolescents, Adults, and Health Care Workers

Stephen Murata¹, Taylor Rezeppa¹, Brian Thoma², Laura Marengo³, Katie Krancevich¹, Elizabeth Chiyka⁴, Benjamin Hayes⁴, Eli Goodfriend¹, Meredith Deal¹, Yongqi Zhong⁴, Bradley Brummit¹, Tiffany Coury¹, Sarah Riston¹, David A. Brent², Nadine M. Melhem²

4326 adultes
583 adolescents

- Santé mentale des jeunes

Murata S et al. *Depress Anxiety*. 2021 ;38(2):233-246.

BACKGROUND.—The COVID-19 pandemic is the most serious global public health crisis since the 1918 influenza pandemic. This study is the first to assess its mental health impact across the lifespan in the US in adults, adolescents, and health care workers (HCWs).

METHODS.—We recruited 4909 participants through an online survey advertising on Facebook and Instagram to assess exposure to COVID-19 and psychiatric symptoms from April 27 to July 13. We also recruited through the University of Pittsburgh, University of Pittsburgh Medical Center (UPMC), and other health care systems around Pittsburgh. The primary outcomes were clinically significant depression, anxiety, and posttraumatic stress disorder symptoms, suicidal ideation or behavior, and grief reactions since COVID-19.

RESULTS.—Adolescents were significantly more likely to report moderate to severe symptoms of depression (55% vs. 29%, $\chi^2=122$, $df=1$, $p<0.001$), anxiety (48% vs. 29%, $\chi^2=73$, $df=1$, $p<0.001$), PTSD (45% vs. 33%, $\chi^2=12$, $df=1$, $p<0.001$), suicidal ideation or behavior (38% vs. 16%, $\chi^2=117$, $df=1$, $p<0.001$), and sleep problems (69% vs. 57%, $\chi^2=26$, $df=1$, $p<0.001$) compared to adults. The rates of intense grief reactions among those who lost someone to COVID-19 was 55%. Loneliness was the most common predictor across outcomes and higher number of hours spent on social media and exposure to media about COVID-19 predicted depression symptoms and suicidal ideation or behavior in adolescents.

CONCLUSIONS.—The COVID-19 pandemic is associated with increased rates of clinically significant psychiatric symptoms. Loneliness could put individuals at increased risk for the onset of psychiatric disorders.

Crise sanitaire COVID-19 et conduites suicidaires

Hospitalization for self-harm during the early months of the COVID-19 pandemic in France: A nationwide retrospective observational cohort study

Fabrice JOLLANT^{a,b,c,d,e,1,*}, Adrien ROUSSOT^{f,1}, Emmanuelle CORRUBLE^{e,g},
Jean-Christophe CHAUVET-GELINIER^{h,i}, Bruno FALISSARD^j, Yann MIKAELOFF^k,
Catherine QUANTIN^{l,m}

N= 53000 hospitalisations pour TS
concernant 47000 patients
en 2020

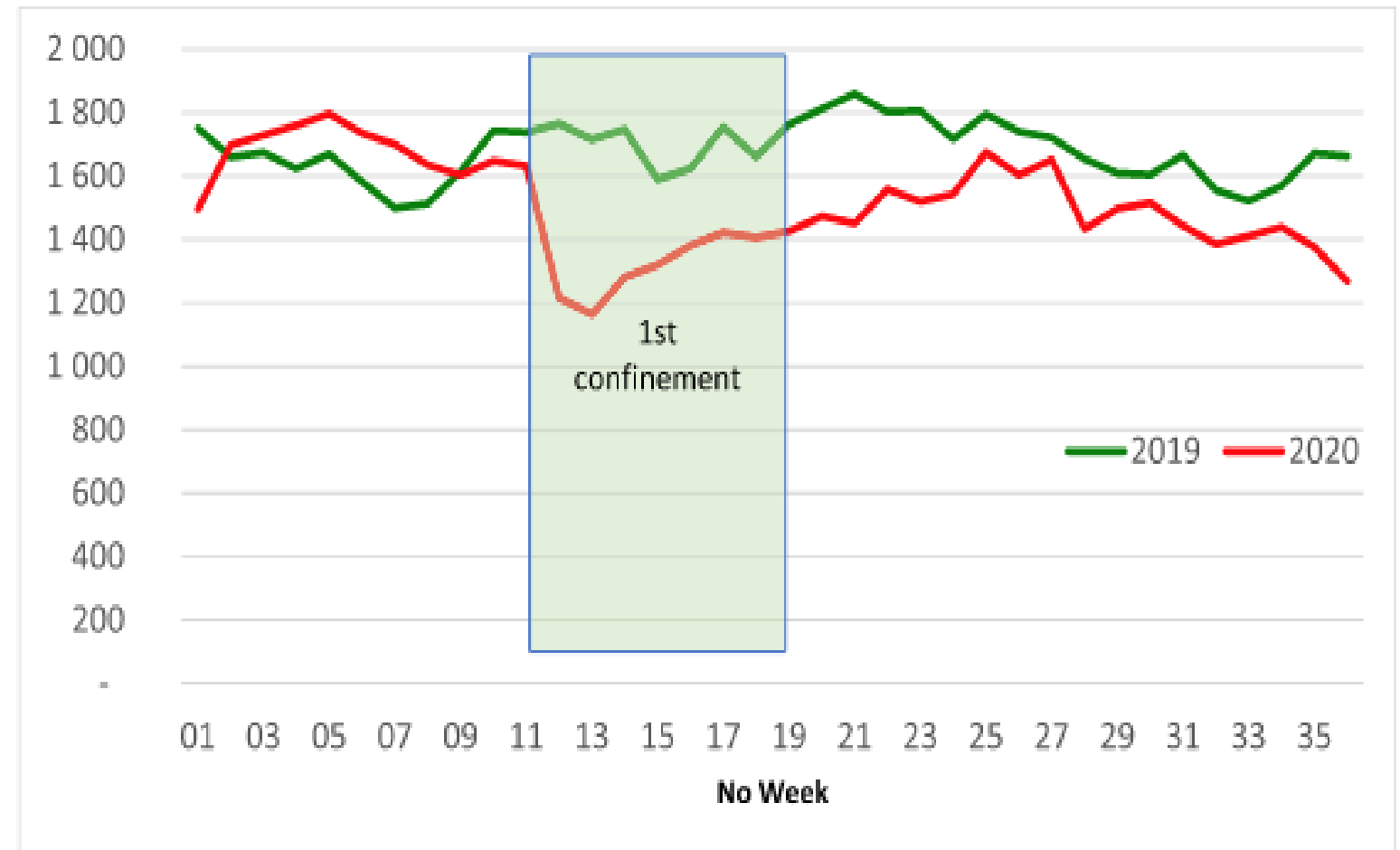


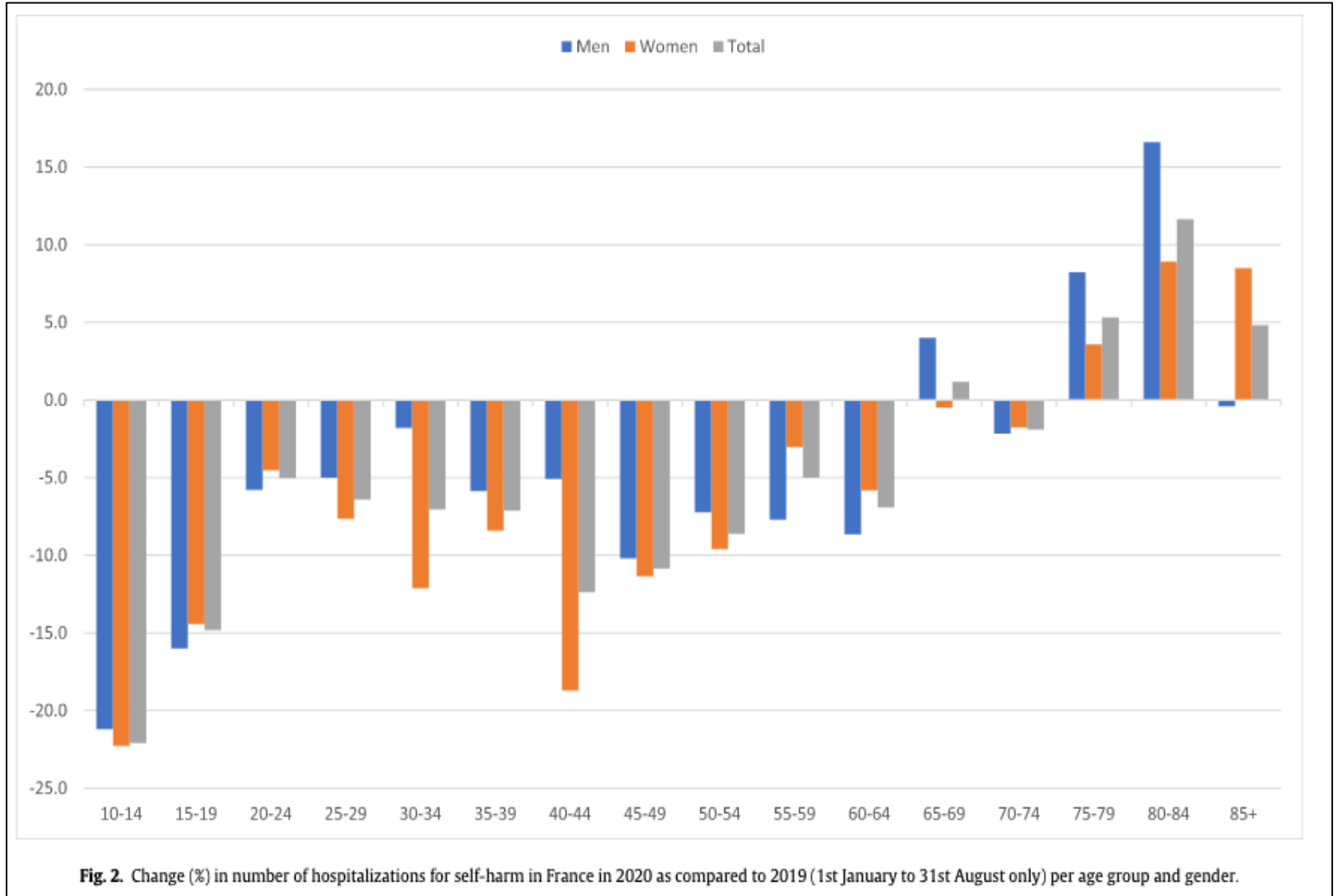
Fig. 1. Number of weekly hospitalizations for self-harm in France in 2020 and 2019 (January to August only).

Crise sanitaire COVID-19 et conduites suicidaires

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Jean-Christophe CHAUVET-GELINIER^{h,i}, Bruno FALISSARD^j, Yann MIKAELOFF^k,
Catherine QUANTIN^{f,l,m}

N= 53000 hospitalisations pour TS
concernant 47000 patients
en 2020



Crise sanitaire COVID-19 et conduites suicidaires

Prolonged impact of the COVID-19 pandemic on self-harm hospitalizations in France: A nationwide retrospective observational study

F. Jollant^{1,2,3,4,5,6*}, A. Roussot^{7,8}, E. Corruble^{6,9}, J. C. Chauvet-Gelinier^{10,11},
B. Falissard¹², Y. Mikaeloff¹³ and C. Quantin^{7,8,14,15,16}

N= 228000 hospitalisations pour
TS concernant 180000 patients
en 2019-2021

Jollant F et al. Eur Psychiatry. 2022 Jun 13;65(1):e35.

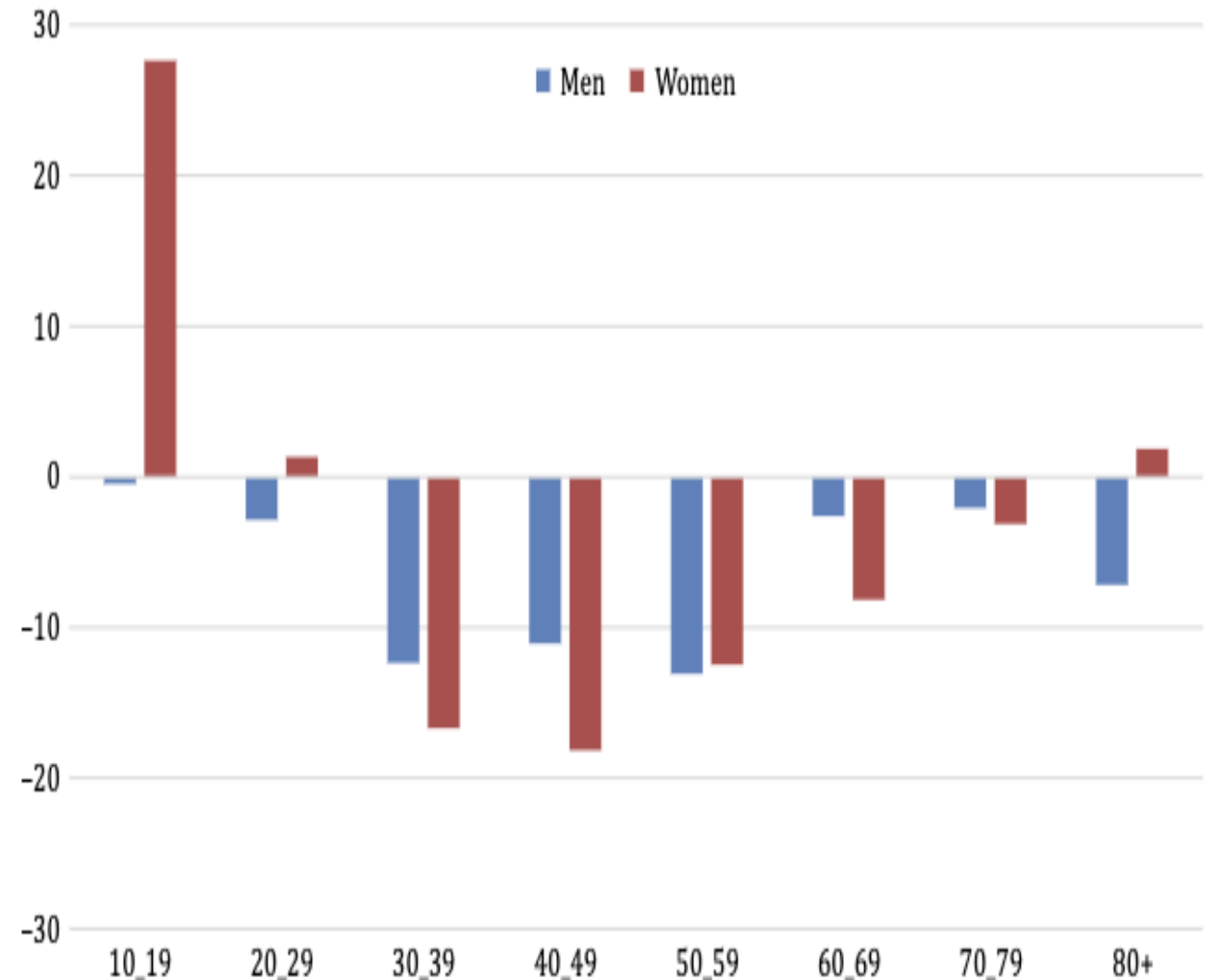


Figure 3. Changes (in %) in the number of hospitalizations for self-harm in France in September 2020–August 2021 compared to January–December 2019, per age group and by sex.

Crise sanitaire COVID-19 et Anorexie Mentale

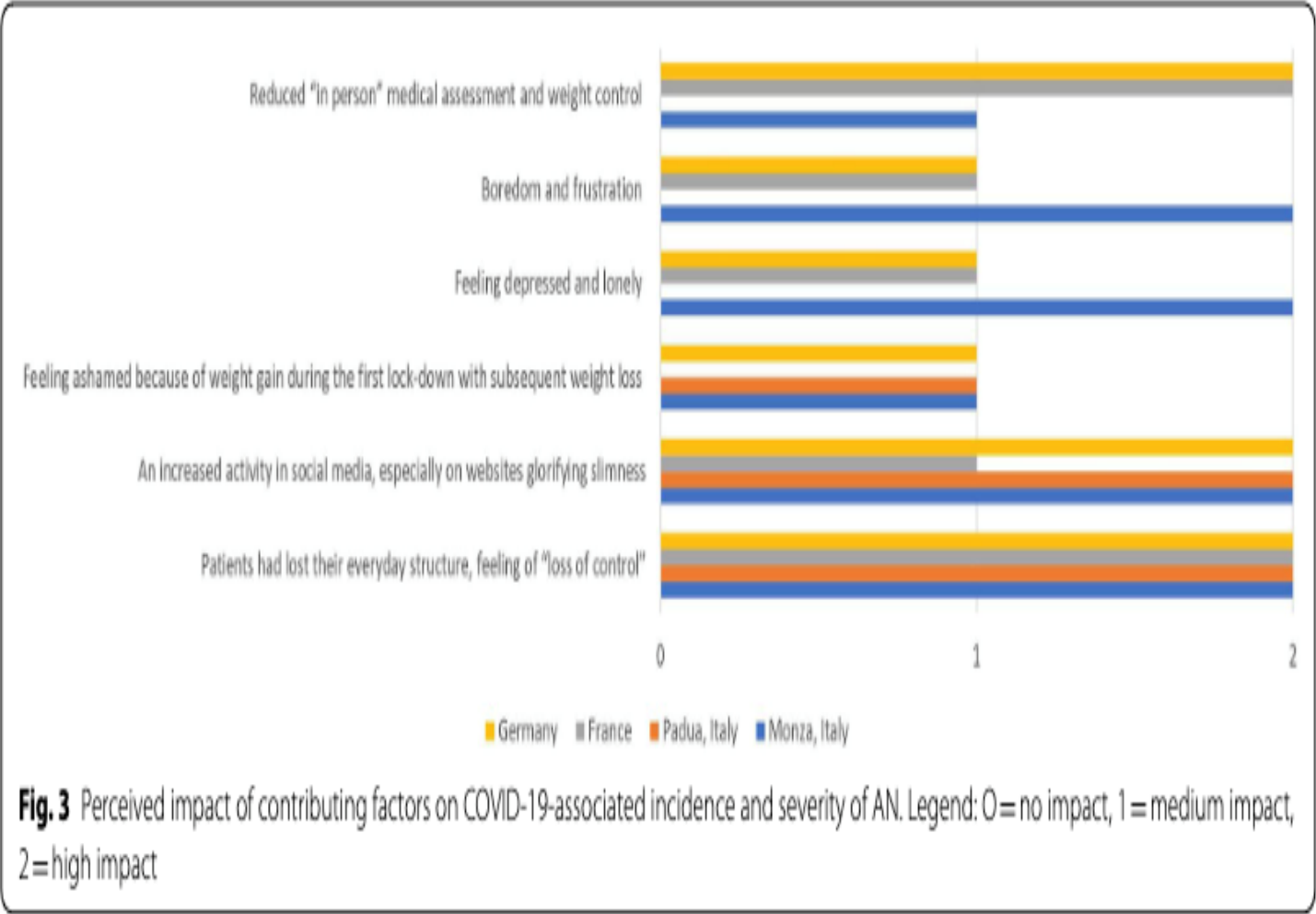
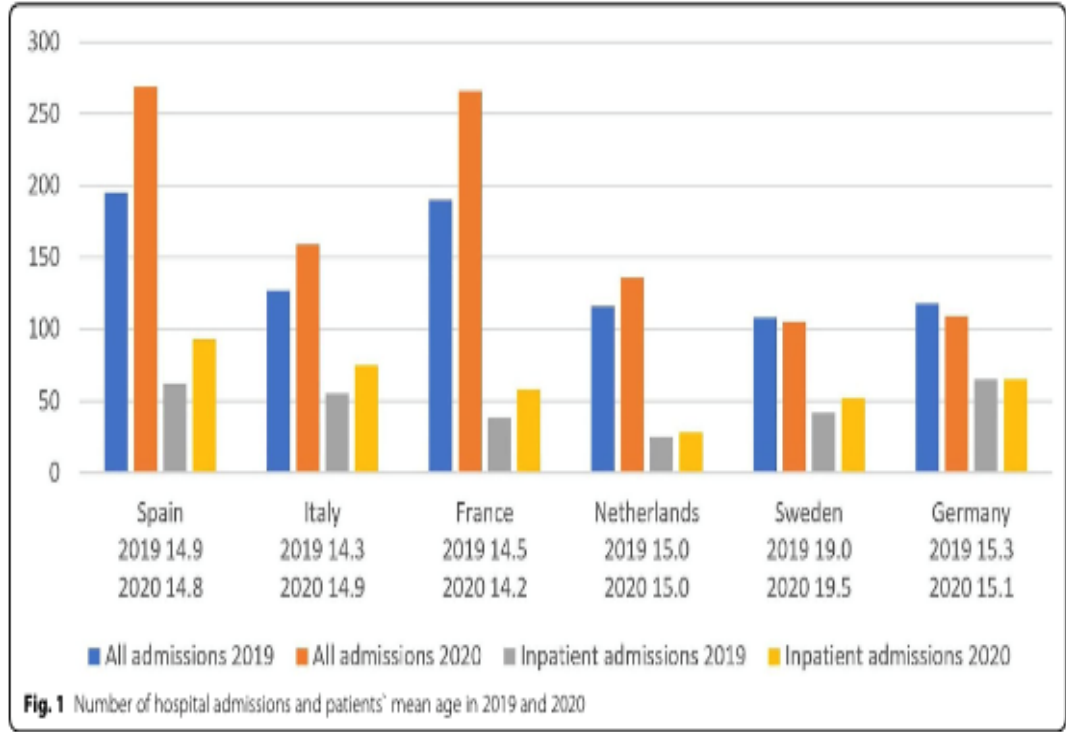
RESEARCH

Open Access



Increase in admission rates and symptom severity of childhood and adolescent anorexia nervosa in Europe during the COVID-19 pandemic: data from specialized eating disorder units in different European countries

Susanne Gilsbach¹, Maria Teresa Plana², Josefina Castro-Fornieles², Michela Gatta³, Gunilla Paulson Karlsson⁴, Itziar Flamarique², Jean-Philippe Raynaud⁵, Anna Riva⁶, Anne-Line Solberg⁴, Annemarie A. van Elburg^{7,8}, Elisabet Wentz⁹, Renata Nacinovich^{6†} and Beate Herpertz-Dahlmann^{1†}



Crise sanitaire COVID-19 et Anorexie Mentale

Hospitalizations for Anorexia Nervosa during the COVID-19 Pandemic in France: A Nationwide Population-Based Study

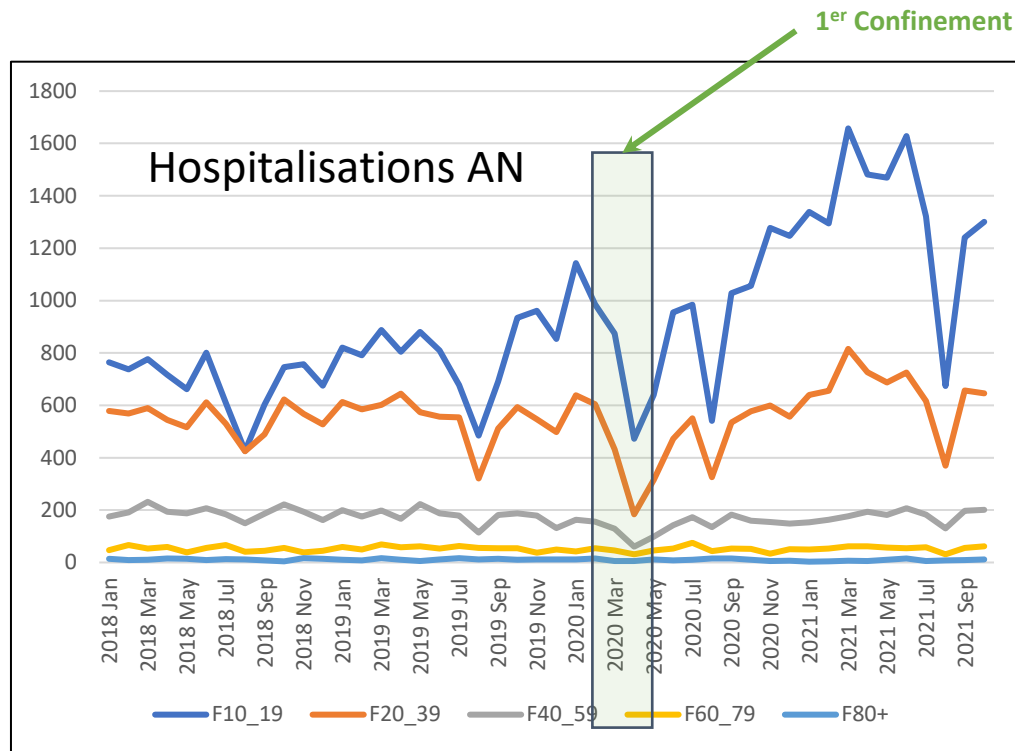
Jean-Christophe Chauvet-Gelinier^{1,2}, Adrien Roussot³, Bruno Vergès^{2,4}, Jean-Michel Petit^{2,4},
Fabrice Jollant^{5,6,7,8,9} and Catherine Quantin^{3,10,11,*}

N=78000 hospitalisations pour AN concernant
22000 patients en 2018-2021

Crise sanitaire COVID-19 et Anorexie Mentale

Hospitalizations for Anorexia Nervosa during the COVID-19 Pandemic in France: A Nationwide Population-Based Study

Jean-Christophe Chauvet-Gelinier^{1,2}, Adrien Roussot³, Bruno Vergès^{2,4}, Jean-Michel Petit^{2,4}, Fabrice Jollant^{5,6,7,8,9} and Catherine Quantin^{3,10,11,*}

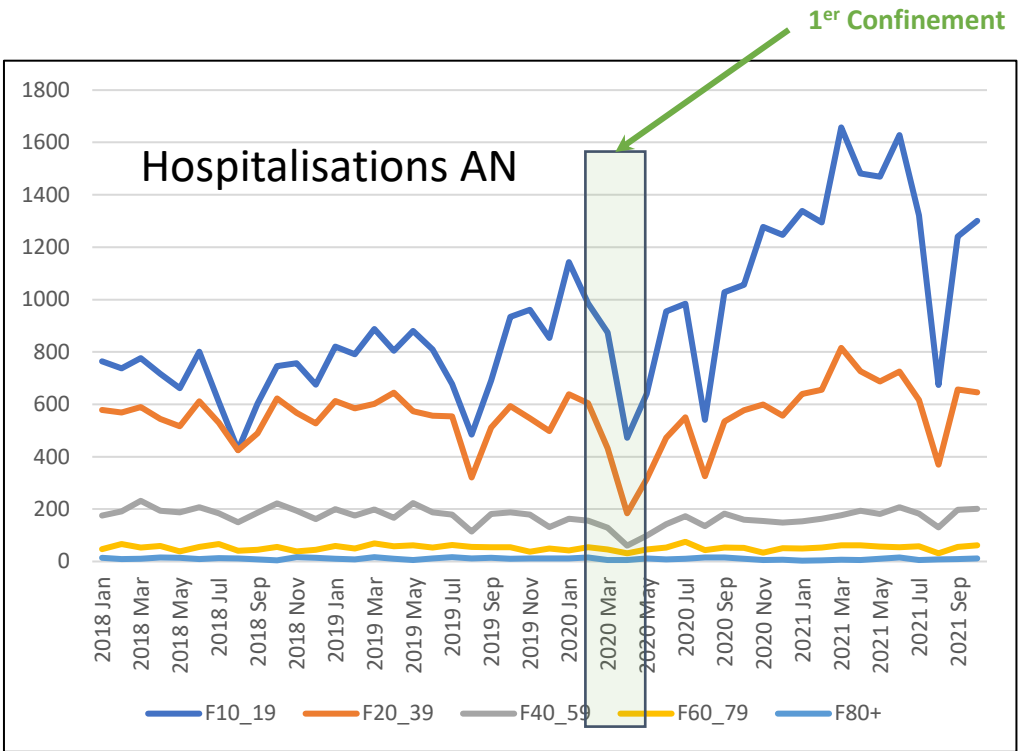


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Crise sanitaire COVID-19 et Anorexie Mentale

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N=78000 hospitalisations pour AN concernant
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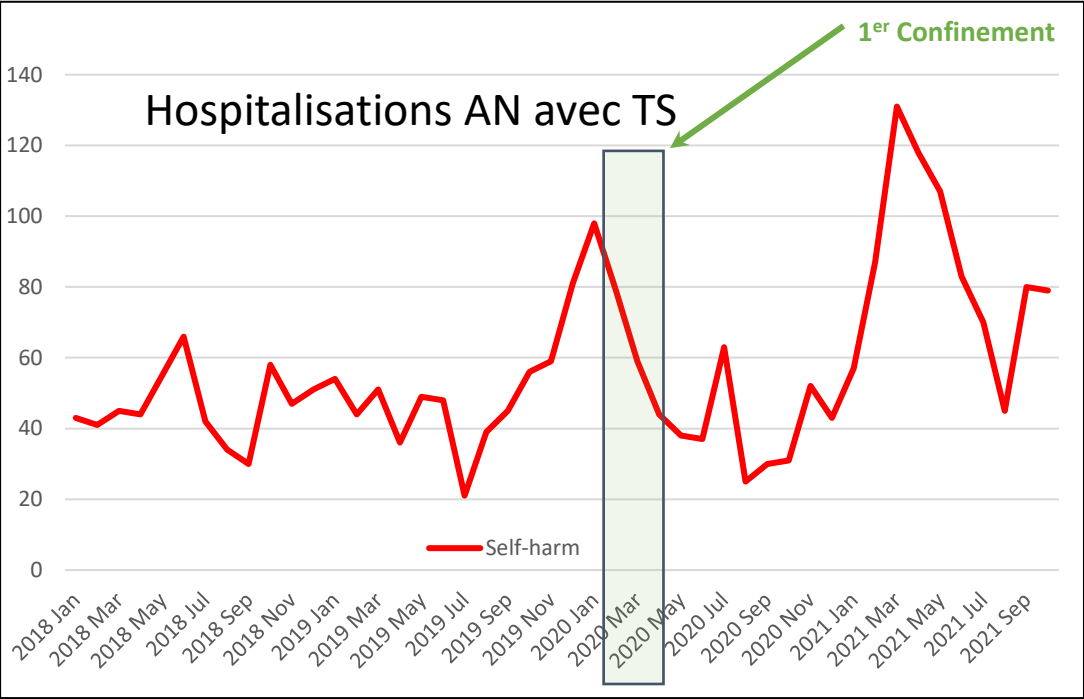
Chauvet-Gelinier JC et al. J Clin Med. 2022 ;11(16):4787.

Table 1. Number of hospitalizations according to age and gender, as well as hospitalization characteristics and comparisons between before and during the COVID-19 pandemic periods.								
	Pre-COVID-19		During COVID-19		Total		Relative Risk (95% CI) for the pre- vs. during-COVID-19 Periods	
	June 2018–February 2020		March 2020–November 2021					
	N	%	N	%	N	%		
Hospitalizations	35,536		42,643		78,179		1.20 (1.18–1.22) ***	
Patients	10,330		11,270		21,600		1.09 (1.06–1.12) ***	£
Gender and age								
Female	33,045	93.0	40,307	94.5	73,352		1.22 (1.20–1.24) ***	£
Mean age	25.6 (±14.6)		23.4 (±13.2)				t-Test = −21.9; <i>p</i> < 0.0001	\$
10–19	16,338	46.0	23,833	55.9	40,171	51.4	1.46 (1.43–1.49) ***	
20–29	7489	21.1	8016	18.8	15,505	19.8	1.07 (1.04–1.11) ***	
30–39	4125	11.6	3786	8.9	7911	10.1	0.92 (0.88–0.96) ***	
40–49	2367	6.7	2063	4.8	4430	5.7	0.87 (0.82–0.93) ***	£
50–59	1380	3.9	1344	3.2	2724	3.5	0.97 (0.90–1.05)	
60+	1346	3.8	1265	3.0	2611	3.3	0.94 (0.87–1.02)	
Male	2491		2336		4827		0.94 (0.89–0.99) *	£
Mean age	29.3 (±19.0)		28.8 (±18.6)				t-Test = −0.9; <i>p</i> = 0.302	\$
10–19	1139	2.6	1125	3.2	2264	2.9	0.99 (0.91–1.07)	
20–29	454	1.1	458	1.3	912	1.2	1.01 (0.89–1.15)	
30–39	373	0.7	308	1.1	681	0.9	0.83 (0.71–0.96) *	
40–49	171	0.2	82	0.5	253	0.3	0.48 (0.37–0.62) ***	£
50–59	88	0.3	123	0.3	211	0.3	1.40 (1.06–1.84) *	
60+	266	0.6	240	0.8	506	0.6	0.90 (0.76–1.07)	
Hosp. Characteristics								
Stays per patient	3.44 (±8.4)		3.78 (±10.5)		-		t-Test = 2.63; <i>p</i> = 0.008	\$
Mean length of stay (days)	5.32 (±16.3)		5.37 (±17.4)		-		t-Test = 0.49; <i>p</i> = 0.627	
Self-harm	1088	3.1	1341	3.1	2429	3.1	1.23 (1.14–1.34) ***	
Hosp. In ICU	452	1.3	428	1.0	880	1.1	0.95 (0.83–1.08)	£
Hosp. Death	181	0.5	154	0.4	335	0.4	HR = 0.73 (0.59–0.91); <i>p</i> = 0.004	μ
Footnotes: CI: confidence interval; ICU: intensive care unit; * <i>p</i> < 0.05; *** ≤0.0001. £: Poisson regression model; \$: T-test; μ: Cox model.								

Crise sanitaire COVID-19, AN et conduites suicidaires

Hospitalizations for Anorexia Nervosa during the COVID-19 Pandemic in France: A Nationwide Population-Based Study

Jean-Christophe Chauvet-Gelinier^{1,2}, Adrien Roussot³, Bruno Vergès^{2,4}, Jean-Michel Petit^{2,4}, Fabrice Jollant^{5,6,7,8,9} and Catherine Quantin^{3,10,11,*}



N=78000 hospitalisations pour AN concernant 23000 patients en 2018-2021

Table 2. Risk of admission to an intensive care unit or self-harm diagnosis associated with hospitalization for AN (adjusted odds ratios before and after beginning of the COVID-19 pandemic).

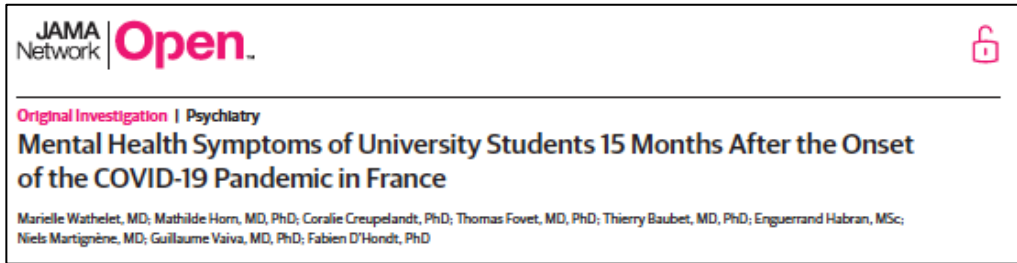
Hospitalization in Intensive Care Unit (N = 880)					Self-Harm Diagnosis during Hospitalization for AN (N = 2429)			
BEFORE COVID-19 (N = 452)			DURING COVID-19 (N = 428)		BEFORE COVID-19 (N = 1088)		DURING COVID-19 (N = 1341)	
	N	aOR	N	aOR	N	aOR	N	aOR
Age class								
10–19	55	0.16 (0.11–0.23) ***	73	0.11 (0.08–0.15) ***	771	3.12 (2.48–3.98) ***	981	2.40 (1.89–3.05) ***
20–29	108	0.89 (0.65–1.22)	99	0.50 (0.37–0.67) ***	150	1.15 (0.87–1.53)	212	1.39 (1.06–1.81) *
30–39			Ref				Ref	
40–49	58	1.53 (1.07–2.19) *	56	1.22 (0.86–1.72)	39	0.85 (0.57–1.27)	38	0.84 (0.56–1.25)
50–59	71	2.86 (2.02–4.06) ***	52	1.61 (1.13–2.30) **	35	1.11 (0.73–1.69)	16	0.49 (0.28–0.85) *
60+	91	2.97 (2.10–4.19) ***	58	1.45 (1.01–2.09) *	19	0.53 (0.31–0.89) *	14	0.45 (0.25–0.81) **
Gender								
Female	422	1.32 (0.89–1.96)	392	0.81 (0.57–1.17)	1058	2.58 (1.79–3.73) ***	1321	3.71 (2.38–5.80) ***
Other adverse outcome								
Hosp. death	54	13.94 (9.63–20.18) ***	28	8.42 (5.30–13.38) ***	7	0.62 (0.27–1.43)	1	0.20 (0.03–1.46)
Self-harm	85	14.70 (11.22–19.25) ***	85	14.26 (10.96–18.55) ***				
ICU					85	15.05 (11.44–19.81) ***	85	14.68 (11.27–19.13) ***

Footnotes: I: Intensive Care Unit; N: number of hospital stays; aOR: adjusted odds ratio; * $p < 0.05$; ** $p \leq 0.01$; *** $p \leq 0.0001$.

COVID-19 et conséquences psychiques

- Santé mentale des étudiants

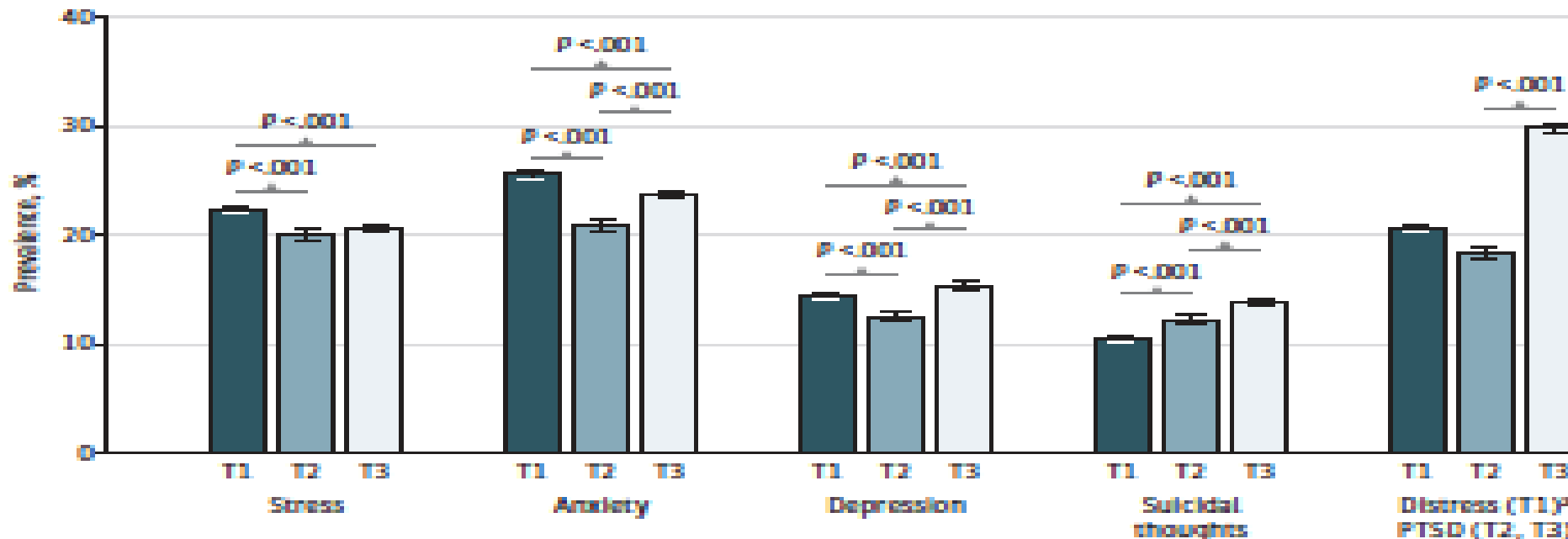
Wathelet M et al. JAMA Netw Open. 2022 ;5(12):e2249342.



Etude COSAME

44898 étudiants contactés par mail via les 82 universités françaises

Figure. Standardized Prevalence Rates of Mental Health Disorders During the First Lockdown (T1), 1 Month after the First Lockdown Ended (T2), and 15 Months After the Onset of the COVID-19 Pandemic (T3)



COVID-19 et conséquences psychiques

- Santé mentale des étudiants

Wathelet M et al. JAMA Netw Open. 2022 ;5(12):e2249342.

Table 2. Factors Associated With Poor Mental Health Outcomes 15 Months After the Onset of the COVID-19 Pandemic According to the Bivariate Analysis

Factor	No. (%) (N = 44 898)	Stress (PSS-10 score >26) No. (%)	P value	Anxiety (STAI Y-2 score >55) No. (%)	P value	Depression (BDI-13 score >15) No. (%)	P value	PTSD (PCL-5 score >32) No. (%)	P value	Suicidal thoughts No. (%)	P value
Gender											
Male	12 429 (27.7)	1656 (13.3)		1989 (16.0)		1522 (12.2)		2963 (23.8)		1471 (11.8)	
Female	31 728 (70.7)	8125 (25.6)	<.001	8905 (28.1)	<.001	5789 (18.2)	<.001	10 594 (33.4)	<.001	4909 (15.5)	<.001
Other	741 (1.6)	340 (45.9)		350 (47.2)		292 (39.4)		358 (48.3)		352 (47.5)	
Degree											
Bachelor	36 772 (81.9)	8306 (22.6)		9069 (24.7)		6367 (17.3)		11 327 (30.8)		5592 (15.2)	
Master	7246 (16.1)	1649 (22.7)	.03	1949 (26.9)	<.001	1127 (15.5)	<.001	2351 (32.4)	<.001	1045 (14.4)	<.001
Doctorate	880 (2.0)	166 (18.9)		226 (25.7)		109 (12.4)		237 (26.9)		95 (10.8)	
Foreign student											
Yes	3276 (7.3)	692 (21.1)		920 (28.1)		642 (19.6)		1440 (43.9)		481 (14.7)	
No	41 622 (92.7)	9429 (22.6)	.046	10 324 (24.8)	<.001	6961 (16.7)	<.001	12 475 (30.0)	<.001	6251 (15.0)	.62
Having children											
Yes	698 (1.5)	124 (17.8)		167 (23.9)		99 (14.2)		231 (33.1)		80 (11.5)	
No	44 200 (98.5)	9997 (22.6)	.003	11 077 (25.1)	.52	7504 (17.0)	.06	13 684 (31.0)	.24	6652 (15.0)	.01
Living area											
Urban	19 909 (44.3)	4650 (23.3)		5175 (26.0)		3660 (18.4)		6507 (32.7)		3113 (15.6)	
Suburban	11 808 (26.3)	2728 (23.1)	<.001	2987 (25.3)	<.001	2019 (17.1)	<.001	3626 (30.7)	<.001	1846 (15.6)	<.001
Rural	13 181 (29.4)	2743 (20.8)		3082 (23.4)		1924 (14.6)		3782 (28.7)		1773 (13.4)	
Financial difficulties											
No or few	29 054 (64.7)	5140 (17.7)		5602 (19.3)		3556 (12.2)		7118 (24.5)		3590 (12.3)	
Moderate	10 014 (22.3)	2715 (27.1)	<.001	3067 (30.6)	<.001	2061 (20.6)	<.001	3826 (38.2)	<.001	1693 (16.9)	<.001
Important	5830 (13.0)	2266 (38.9)		2575 (44.2)		1986 (34.1)		2971 (51.0)		1449 (24.8)	
History of psychiatric follow-up											
Yes	4002 (8.9)	1632 (40.8)	<.001	1738 (43.4)	<.001	1362 (34.0)	<.001	1968 (49.2)	<.001	1348 (33.7)	<.001
No	40 896 (91.1)	8489 (20.7)		9506 (23.2)		6241 (15.3)		11 947 (29.2)		5384 (13.2)	
Chronic condition											
Yes	4713 (10.5)	1591 (33.7)	<.001	1728 (36.7)	<.001	1268 (26.9)	<.001	2023 (42.9)	<.001	1184 (25.1)	<.001
No	40 185 (89.5)	8530 (21.2)		9516 (23.7)		6335 (15.8)		11 892 (29.6)		5548 (13.8)	
COVID-19 (suspected or positive test)											
Yes	12 105 (27.0)	3064 (25.3)	<.001	3390 (28.0)	<.001	2282 (18.8)	<.001	4495 (37.1)	<.001	1995 (16.5)	<.001
No	32 793 (73.0)	7057 (21.5)		7854 (23.9)		5321 (16.2)		9420 (28.7)		4737 (14.4)	
Social isolation											
Yes	2013 (4.5)	650 (32.3)	<.001	735 (36.5)	<.001	593 (29.4)	<.001	745 (37.0)	<.001	522 (25.9)	<.001
No	42 885 (95.5)	9471 (22.1)		10 509 (24.5)		7010 (16.3)		13 170 (30.7)		6210 (14.5)	
Quality of information received											
High (7-10)	12 837 (28.6)	2281 (17.8)		2529 (22.1)		1692 (14.8)		3275 (28.6)		1607 (12.5)	
Medium (4-6)	20 268 (45.9)	4562 (22.5)	<.001	5141 (25.4)	<.001	3433 (16.9)	<.001	6240 (30.8)	<.001	2987 (14.7)	<.001
Low (0-3)	11 433 (25.5)	3278 (28.7)		3574 (27.8)		2478 (19.3)		4400 (34.3)		2138 (18.7)	

COVID-19 et conséquences psychiques

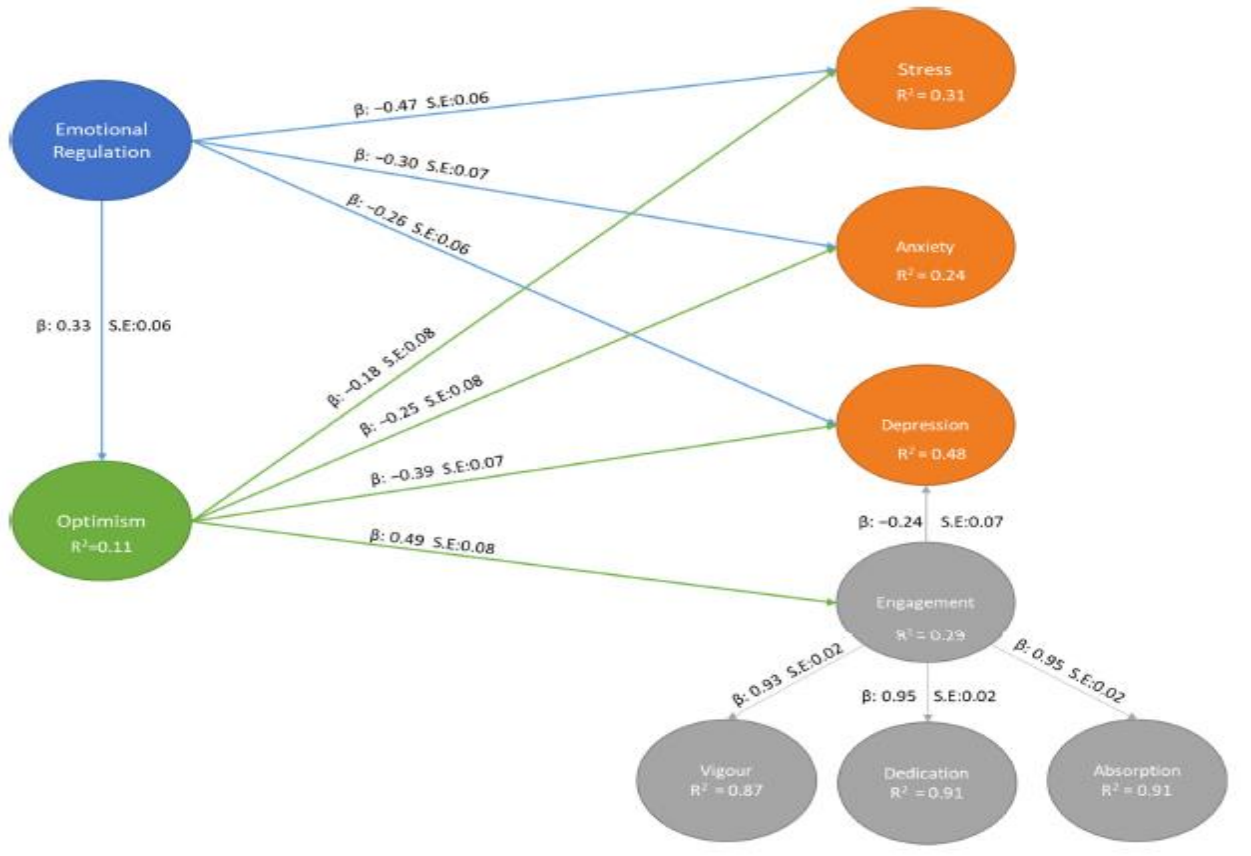
- Santé mentale des étudiants

Article

Mental Health during COVID-19 Pandemic: The Role of Optimism and Emotional Regulation

Imen Krifa ^{1,2}, Llewellyn Ellardus van Zyl ^{3,4,5,6}, Amel Braham ^{1,7}, Selma Ben Nasr ^{1,7} and Rebecca Shankland ^{8,9,*}

Krifa I et al. Int J Environ Res Public Health. 2022 ;19(3):1413.



Variable	Estimate	S.E.	p-Value	95% BC CI
Emotional regulation indirectly affects engagement through Optimism	0.16	0.05	0.00	[0.09; 0.27]
Emotional regulation indirectly affects stress through Optimism	-0.06	0.04	0.09	[-0.14; 0.01]
Emotional regulation indirectly affects depression through Optimism	-0.13	0.04	0.00	[-0.23; -0.06]
Emotional regulation indirectly affects anxiety through Optimism	-0.08	0.04	0.02	[-0.17; -0.03]
Optimism indirectly affects depression through Engagement	-0.12	0.04	0.00	[-0.20; -0.05]

COVID-19 et conséquences psychiques

- Santé mentale des étudiants en santé

Impact of the first wave of the COVID-19 pandemic on French Health students

Impact de la première vague de la pandémie de COVID-19 sur les étudiants en santé français

F. Rolland^{a,e,*}, A. Frajerman^g, B. Falissard^{a,e}, G. Bertschy^{b,c,d}, B. Diquet^f, D. Marra^{e,h}



Rolland F et al. Encephale. 2023 ;49(3):219-226.

Context. – In France, care workers and health students have been intensely mobilized during the first wave of the COVID-19 pandemic. But few studies have evaluated psychological distress on non-medical health students, in addition to the challenges posed by pedagogical continuity while universities are closed following health and safety regulations.

Objectives. – This study aims to assess COVID-19's impact on health students in France on different levels: psychological, educational and social.

Methods. – An online national cross-sectional study, from April 11 to May 30 2020, included sociodemographic, work conditions and numeric scales.

Results. – A total of 4411 students answered. Regarding the K6 scale, 39% of students had moderate distress, and 21% had a high level of distress. Risk factors of psychological distress included being a woman ($P < 0.001$), being between 19 and 21 years old ($P < 0.001$), living alone ($P = 0.008$), and not having the ability to isolate ($P < 0.001$). Students on the frontline had less psychological distress (57 vs 62%, $P = 0.003$), better quality of sleep (34% vs 28% high quality, $P < 0.001$) but a higher consumption of medical (8.5% vs 6.5%, $P = 0.044$) and non-medical (18% vs 10%, $P < 0.001$) psychotropic drugs. Nurse and medical students had more distress and used more non-medical psychotropic substances than other health students (15% vs 9.2%).

Discussion. – COVID-19' crisis had an important impact on health students' mental health, social life and training with discrepancies regarding the speciality whether they were on the frontline or not. There is an urgent need for psychological and pedagogical support for students, and even more so regarding the prolongation of the COVID-19 epidemic.

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Pandémie COVID-19 et santé mentale des jeunes

- **COVID-19, stress et adaptation psycho-biologique**
- **Pandémie et impact sur la santé mentale des jeunes**
- **SARS-CoV-2 et santé mentale**
- **Quelques éléments narratifs « de terrain »**

COVID-19 et conséquences somato-psychiques

VIEWPOINT: COVID-19

Nervous system consequences of COVID-19

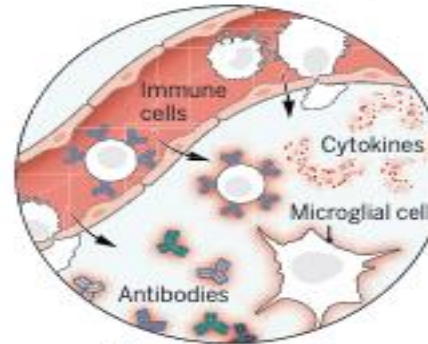
Neurological symptoms highlight the need to understand pathophysiologic mechanisms

By **Serena Spudich¹** and **Avindra Nath²**

Putative neuropathogenic effects of SARS-CoV-2

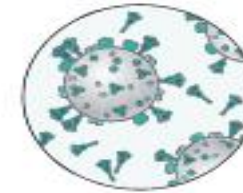
Infection with severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) can lead to neuropsychiatric effects during acute COVID-19, including confusion, stroke, and neuromuscular disorders. These may arise from neuroinflammation, coagulopathy, neuronal injury, and possibly viral infection in the central nervous system. Causes of Long Covid symptoms affecting the nervous system may result from the emergence and persistence of these mechanisms.

Generalized **neuroinflammation** with trafficking of immune cells, cytokines, and antibodies into the brain and activation of microglia

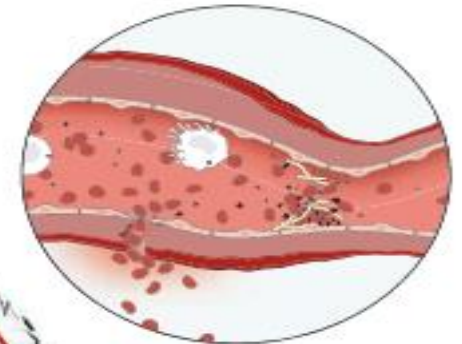


Neuroinflammation is exacerbated by **antibody production**, including antibodies to SARS-CoV-2 and autoantibodies.

Limited presence of SARS-CoV-2 spike protein or viral particles in neurons and other brain cells



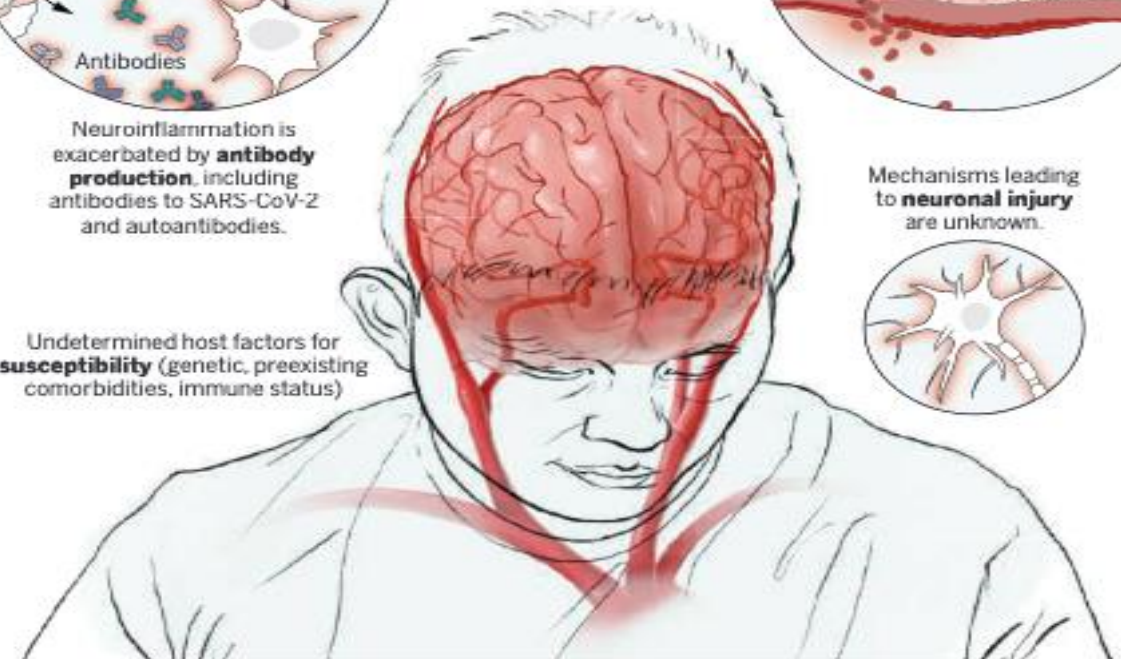
Blood vessels may be damaged by endothelial cell activation and coagulopathy, leading to vascular dysfunction, including microbleeds or stroke.



Mechanisms leading to **neuronal injury** are unknown.



Undetermined host factors for **susceptibility** (genetic, preexisting comorbidities, immune status)



COVID-19 et conséquences somato-psychiques

JAMA Psychiatry | Original Investigation

Associations of Depression, Anxiety, Worry, Perceived Stress, and Loneliness Prior to Infection With Risk of Post-COVID-19 Conditions

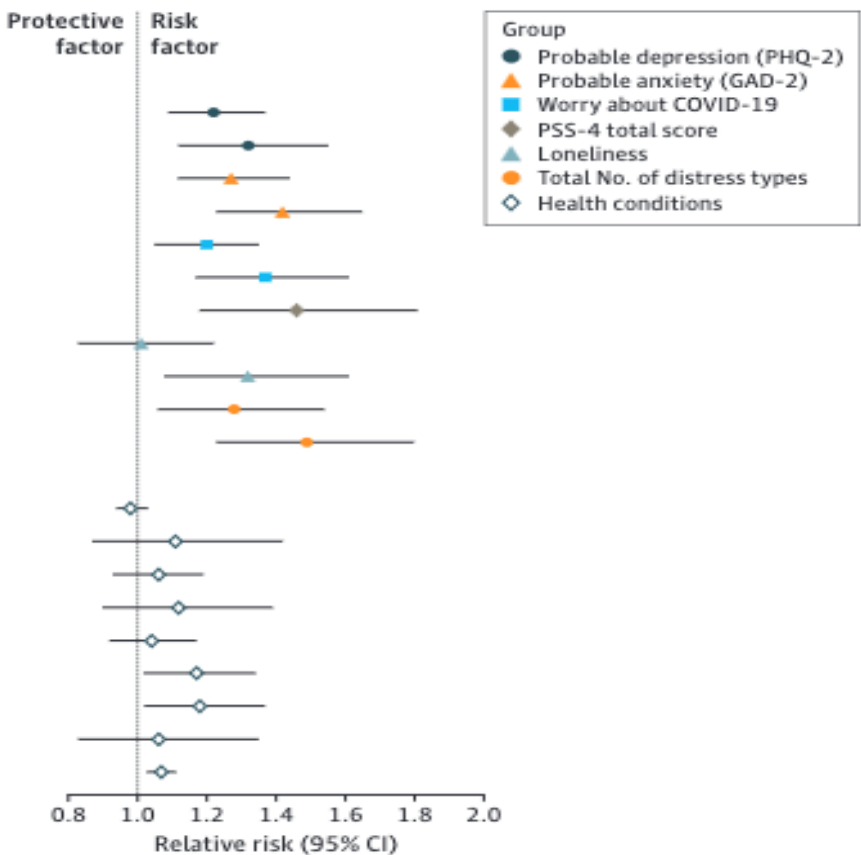
Siwen Wang, MD; Luwei Quan, BA; Jorge E. Chavarro, ScD; Natalie Slopen, ScD; Laura D. Kubzansky, PhD; Karestan C. Koenen, PhD; Jae Hee Kang, ScD; Marc G. Weisskopf, PhD; Westyn Branch-Elliman, MD; Andrea L. Roberts, PhD

Wang S et al. JAMA Psychiatry. 2022 ;79(11):1081-1091.

54690 personnes suivies pendant 19 mois, dont 3193 avec Test COVID+

Figure 1. Association Between Distress and Established COVID-19 Risk Factors With Subsequent Post-COVID-19 Conditions, April 2020 Through November 2021 (N = 3193)

Exposures	Cases of post-COVID-19 conditions/positive SARS-CoV-2, No./No. (%)	Relative risk (95% CI)
Types of distress		
Probable depression: subclinical symptoms	574/1194 (48.1)	1.22 (1.09-1.37)
Probable depression: yes	212/397 (53.4)	1.32 (1.12-1.55)
Probable anxiety: subclinical symptoms	611/1314 (46.5)	1.27 (1.12-1.44)
Probable anxiety: yes	345/651 (53.0)	1.42 (1.23-1.65)
Worry about COVID-19: somewhat	769/1694 (45.4)	1.20 (1.05-1.35)
Worry about COVID-19: very worried	264/496 (53.2)	1.37 (1.71-1.16)
Perceived stress, Q4 vs Q1	184/358 (51.4)	1.46 (1.18-1.81)
Loneliness: less than some of the time	266/691 (38.5)	1.01 (0.83-1.22)
Loneliness: some of the time or often	231/456 (50.7)	1.32 (1.08-1.61)
No. of distress types: 1	187/416 (45.0)	1.28 (1.06-1.54)
No. of distress types: ≥2	206/397 (51.9)	1.49 (1.23-1.80)
Established risk factors		
Age, per 10 y	1403/3191 (43.9)	0.98 (0.94-1.03)
Current smoker vs never smoker	45/93 (48.4)	1.11 (0.87-1.42)
Former smoker vs never smoker	373/805 (46.3)	1.06 (0.93-1.19)
Diabetes	92/165 (55.8)	1.12 (0.90-1.39)
High cholesterol	401/834 (48.1)	1.04 (0.92-1.17)
Hypertension	362/687 (52.7)	1.17 (1.02-1.34)
Asthma	228/425 (53.6)	1.18 (1.02-1.37)
Cancer	68/148 (45.9)	1.06 (0.83-1.35)
BMI, per 5	1403/3191 (43.9)	1.07 (1.03-1.11)



Maladie COVID-19 et conduites suicidaires

Risk of hospitalization for self-harm among adults hospitalized with SARS-CoV-2 in France: A nationwide retrospective cohort study

Jean-Christophe Chauvet-Gelinier^{a,b}, Jonathan Cottenet^c, Matthieu Guillaume^a,
Franck-Teddy Endomba^a, Fabrice Jollant^{d,e,f,g,h}, Catherine Quantin^{c,i,*}

N=10 millions de patients hospitalisés
entre 1^{er} mars 2020 et 31 mars 2021,
dont 400000 avec SARS-Cov-2

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N=10 millions de patients hospitalisés entre 1^{er} mars 2020 et 31 mars 2021, dont 400000 avec SARS-Cov-2

Highlights

- Compared with individuals hospitalized without SARS-COV-2 infection ($n = 9681,597$), those hospitalized with SARS-COV-2 ($n = 402,954$) were no more likely to commit deliberate self-harm in the following year, with the exception of people hospitalized for both SARS-COV-2 and self-harm who had a higher risk for a subsequent suicidal act in the next 12 months (aHR =1.56 [1.14–2.15]).
- Clinicians should pay attention to patients with a history of comorbid deliberate self-harm and SARS-CoV-2 infection, in terms of re-emergence of an acute suicidal state and acting out.

Table 1

Effect of SARS-Cov-2 on the risk of self-harm at one year according to the history of self-harm (multivariable Fine&Gray analysis in patients admitted to hospital between March 1, 2020, and March 31, 2021, 1st population).

	Model 1 : Age as a categorical variable HR [95% CI]	Model 2 : Age as a continuous variable HR [95% CI]	Model 3 : Age as a continuous variable (quadratic effect) HR [95% CI]
No history of self-harm	0.75 [0.55–1.03]	1.04 [0.76–1.43]	0.94 [0.68–1.30]
Self-harm at inclusion	1.15 [0.81–1.64]	1.56 [1.14–2.15]	1.44 [1.04–2.00]
self-harm in the year prior to inclusion	0.92 [0.59–1.42]	1.26 [0.83–1.92]	1.14 [0.74–1.74]
Self-harm between 1 and 2 years prior to inclusion	0.91 [0.61–1.34]	1.24 [0.84–1.81]	1.12 [0.76–1.66]
Self-harm between 2 and 7 years prior to inclusion	0.86 [0.59–1.24]	1.16 [0.82–1.64]	1.06 [0.75–1.51]

HR = Hazard ratio ; CI = Confidence interval; Adjusted on age, sex, intensive care unit admission at inclusion, somatic disorders at inclusion or in the 7 previous years, psychiatric disorders at inclusion or in the 7 previous years, period of the epidemic.

Maladie COVID-19 et conduites suicidaires

N=61782 patients hospitalisés pour TS
entre 1^{er} mars 2020 et 31 mars 2021

Table 4: Effect of SARS-Cov-2 on the risk of readmission for self-harm at one year (multivariable Fine&Gray analysis in patients admitted to hospital for self-harm between March 1, 2020, and March 31, 2021, 2nd population)

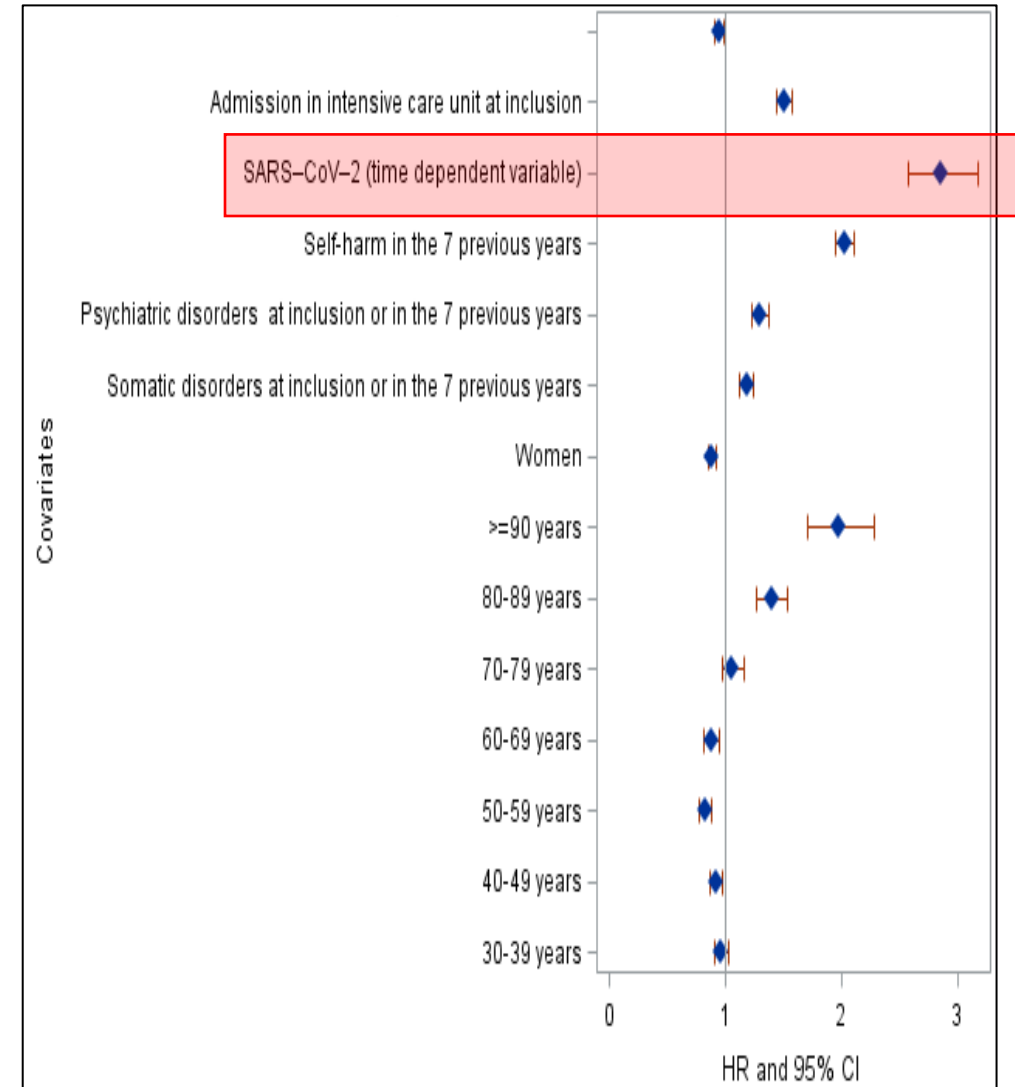
	Model 1 : Age as a categorical variable HR [95% CI]	Model 2 : Age as a continuous variable HR [95% CI]	Model 3 : Age as a continuous variable (quadratic effect) HR [95% CI]
SARS-CoV-2 ^a	2.86 [2.57-3.18]	3.04 [2.73-3.37]	2.86 [2.57-3.18]
Self-harm in the 7 previous years ^b	2.02 [1.94-2.11]	2.00 [1.88-2.04]	2.03 [1.95-2.12]
Psychiatric disorders at inclusion or in the 7 previous years ^c	1.65 [1.57-1.74]	1.61 [1.53-1.69]	1.67 [1.58-1.76]

HR = Hazard ratio ; CI = Confidence interval

^a : adjusted on age, sex, intensive care unit admission at inclusion, somatic disorders at inclusion or in the 7 previous years, self-harm in the 7 previous years, psychiatric disorders at inclusion or in the 7 previous years, period of the epidemic

^b : adjusted on age, sex, intensive care unit admission at inclusion, somatic disorders at inclusion or in the 7 previous years, psychiatric disorders at inclusion or in the 7 previous years, period of the epidemic

^c : adjusted on age, sex, intensive care unit admission at inclusion, somatic disorders at inclusion or in the 7 previous years, period of the epidemic



COVID-19 et Santé Mentale

- Covid-19 : crise sanitaire et psycho-sociale
 - Impact de la crise sanitaire sur toute la population avec des effets délétères sur des populations particulières, notamment les jeunes
 - Virus pro-inflammatoire, multi-systémique, incluant une dimension neuro-psychiatrique
 - Chez des sujets vulnérables (problématique psychiques, atcdts TS, isolement)



Pandémie COVID-19 et santé mentale des jeunes

- COVID-19, stress et adaptation psycho-biologique
- Pandémie et impact sur la santé mentale des jeunes
- SARS-CoV-2 et santé mentale
- Quelques éléments narratifs « de terrain »

Quelques éléments narratifs « de terrain »



COVID-19, adolescents, jeunes adultes et santé mentale, **en 2023 , à l'hôpital:**

- Adolescents : une activité toujours intense
- Adultes : une activité dense et stable
- Troubles des Conduites Alimentaires
 - Augmentation en nombre
 - Accroissement de la sévérité



Merci pour votre attention

