#### **ELSA-Brasil**:

The Covid19 Mental Health Cohort

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- The impact of mental health was expected to be huge ("tsunami")
- Findings from cross-sectional studies
- The ELSA-Brasil Mental Health Cohort
- Ours and worldwide findings
- Tackling the heterogeneity of findings
- Deterioration, Status Quo, Recovery

#### **IHCC Mental Health Working Group**

#### ELSA-BRASIL São Paulo team

- ✓ Isabela Bensenor, PI
- ✓ Paulo Lotufo, PI
- ✓ Daniel Fatori, Post-Doc
- ✓ Paulo Suen, PhD
- ✓ Pedro Bacchi, PhD

#### **IHCC** Team Initiative

- ✓ Jordan Smoller (Harvard)
- ✓ Sarah Bauermeister (Oxford)



#### The COVID-19 pandemic and its restrictive measures

















## Pandemic impact on mental health: initial studies

Impact of COVID-19 pandemic on mental health in the general population: A systematic review

Jiaqi Xiong<sup>a</sup>, Orly Lipsitz<sup>c</sup>, Flora Nasri<sup>c</sup>, Leanna M.W. Lui<sup>c</sup>, Hartej Gill<sup>c</sup>, Lee Phan<sup>c</sup>, David Chen-Li<sup>c</sup>, Michelle Iacobucci<sup>c</sup>, Roger Ho<sup>e,f</sup>, Amna Majeed<sup>c</sup>, Roger S. McIntyre<sup>a,b,c,d,\*</sup>

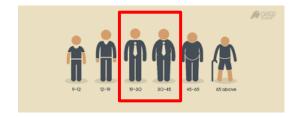
*Methods:* A systematic search was conducted on PubMed, Embase, Medline, Web of Science, and Scopus from inception to 17 May 2020 following the PRISMA guidelines. A manual search on Google Scholar was performed to identify additional relevant studies. Articles were selected based on the predetermined eligibility criteria.

Results: Relatively high rates of symptoms of anxiety (6.33% to 50.9%), depression (14.6% to 48.3%), post-traumatic stress disorder (7% to 53.8%), psychological distress (34.43% to 38%), and stress (8.1% to 81.9%) are reported in the general population during the COVID-19 pandemic in China, Spain, Italy, Iran, the US, Turkey, Nepal, and Denmark. Risk factors associated with distress measures include female gender, younger age group ( $\leq$ 40 years), presence of chronic/psychiatric illnesses, unemployment, student status, and frequent exposure to social media/news concerning COVID-19.

Limitations: A significant degree of heterogeneity was noted across studies.

*Conclusions:* The COVID-19 pandemic is associated with highly significant levels of psychological distress that, in many cases, would meet the threshold for clinical relevance. Mitigating the hazardous effects of COVID-19 on mental health is an international public health priority.











### The ELSA-Brasil Study



The Longitudinal Study of Adult Health - ELSA - is a cohort study including 15,000 civil servants 35-74 years-old from 6 institutions:

- University of São Paulo (5,000)
- Federal University of Minas Gerais (3,000)
- Federal University of Bahia (2,000)
- Federal University of Espírito Santo (2,000)
- Fundação Oswaldo Cruz (2,000)
- Federal University of Rio Grande do Sul (2,000)

ELSA's main objective to study cardiovascular diseases and diabetes in Brazil and Latin America

Mental Health Cohort

March 15. 2020: Lockdown in São Paulo

March-April, 2020: Arrangements for virtual assessment of ELSA-Brasil São Paulo participants

April - May, 2020: Ethics Committee, FAPESP approval

☐ Impacto na saúde mental da pandemia do novo Coronavírus (COVID-19) nos participantes do Estudo Longitudinal de Saúde do Adulto (ELSA-Brasil) do estado de São Paulo

Processo: 20/05441-9

Linha de fomento: Auxílio à Pesquisa - Regular

Vigência: 01 de julho de 2020 - 30 de junho de 2022 Área do conhecimento: Ciências da Saúde - Medicina - Clínica Médica

Pesquisador responsável: Isabela Judith Martins Bensenor 🕲 🐰 🗈

Beneficiário: Isabela Judith Martins Bensenor 🔊 🛂 🙃

Instituição-sede: Hospital Universitário (HU). Universidade de São Paulo (USP). São Paulo , SP, Brasil

Pesq. associados: Andre Russowsky Brunoni ; Giovanni Abrahão Salum Júnior ; Itamar de Souza Santos ; Ives Cavalcante Passos ; Leandro da Costa Lane Valiengo ; Paulo Andrade

Lotufo; Renério Fráguas Junior









#### **Aims**

- 1) to assess the rates of psychiatric disorders and symptoms before and during the pandemic.
- 2) to investigate whether several clinical and demographic variables, as well as leisure activities, and quarantine behaviors during the pandemic would be associated with clinical outcomes.

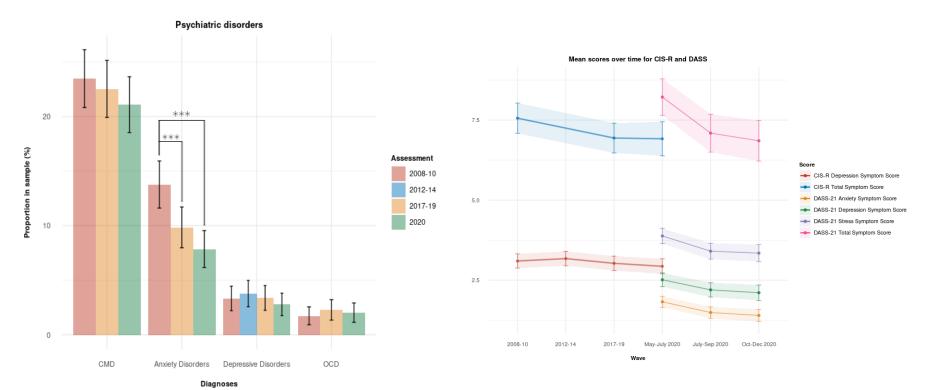
> Psychol Med. 2021 Apr 21;1-30. doi: 10.1017/S0033291721001719. Online ahead of print.

Prevalence and risk factors of psychiatric symptoms and diagnoses before and during the COVID-19 pandemic: findings from the ELSA-Brasil COVID-19 Mental Health Cohort



## Pandemic impact on mental health: ELSA-Brasil - 2020



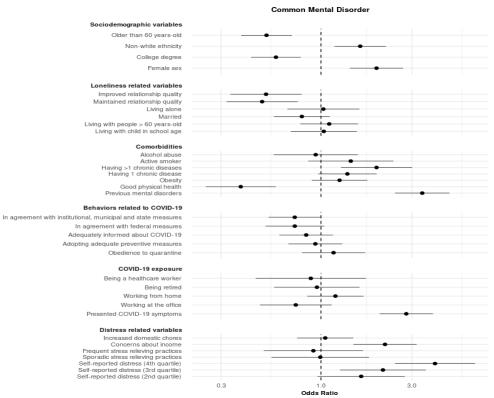


Brunoni et al., Psychol Med, 2021



## Pandemic impact on mental health: ELSA-Brasil - 2020

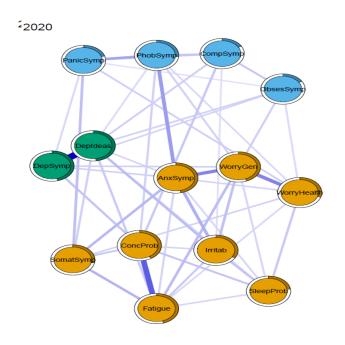


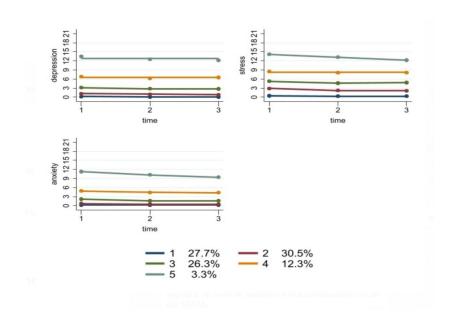


#### Risk factors

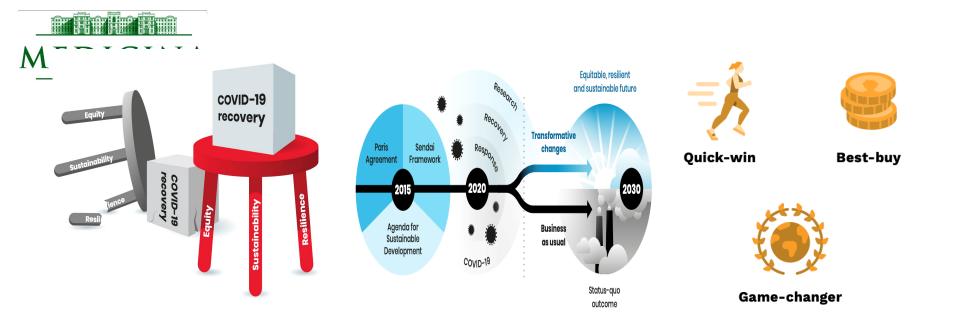
- > 60 years-old
- Non-white ethnicity
- · Absence of college degree
- Loneliness
- Concerns about income
- · Increased distress
- Low quality of personal relationships

## MEDICIN Tackling the heterogeneity of pandemic impact on mental health: ELSA-Brasil - 2020





## Deterioration or Recovery?



### **Strategies and Pathways**

# MEDICINA

## aftermath?



**Before** 

Economic recovery Collective Effervescence Mental Illness - Pathogenesis Post-traumatic growth and Resilience Rumination and Vulnerability Chloroquine Mental Health - Salutogenesis Economic recession Anomic societies

Better than before (Recovery) As before (Status quo) Worse than

before (Deterioration)



Thank you! Andre R Brunoni Brunoni@usp.br