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Survey of burnout among doctors specializing in anesthesiology in Brazil during the COVID-19 pandemic

Submission date 20/09/2021	**Recruitment status** No longer recruiting	[_] Prospectively registered [X] Protocol
Registration date 21/09/2021	**Overall study status** Completed	[_] Statistical analysis plan [X] Results
Last Edited 05/04/2023	**Condition category** Other	[_] Individual participant data

Plain English summary of protocol

Background and study aims
Anesthesiology residents are historically at high risk of burnout, and the coronavirus disease 2019 (COVID-19) pandemic could worsen this scenario. The prevalence of burnout risk and its associated factors in anesthesiology residents in Brazil during the COVID-19 pandemic is unknown. The primary goal of this study is to determine the prevalence of burnout risk in anesthesiology residents in Brazil during the COVID-19 pandemic. The secondary objective is to recognize individual and work-related factors related to the pandemic, which could predict the risk of burnout in this population.

Who can participate?
Anesthesiology residents in Brazil who are currently in their 1st, 2nd, and 3rd year of training.

What does the study involve?
It involves answering a survey on the internet. The survey includes five forms: (1) the Oldenburg Burnout Inventory; (2) demographic data; and the pandemic's impact on (3) behavior and habits, (4) psychosocial information, and (5) work environment.

What are the possible benefits and risks of participating?
There will be no direct benefits related to your participation. Indirect benefits include: contributing to a better understanding of the impact of the COVID-19 pandemic on the mental health of anesthesiology residents, which may help to formulate burnout syndrome prevention strategies to reduce its prevalence.
Participating in this project represents minimal risk. The questions can generate discomfort by including the screening scale for a mental disorder, a questionnaire to detail the social profile, and questions related to the effects of the COVID-19 pandemic.

Where is the study run from?
Hospital Mario Covas (Brazil)

When is the study starting and how long is it expected to run for?
June 2020 to March 2021.

Who is funding the study?
This is a self-funded study by anesthesiologists and anesthesiology residents from the Faculdade de Medicina do ABC (Brazil)

Who is the main contact?
Natanael Pietroski dos Santos, MD, pietroski@gmail.com

Contact information

Type(s)
Scientific

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Additional identifiers

Protocol serial number
U1111-1268-1656

Study information

Scientific Title
Burnout among anesthesiology residents in Brazil during the COVID-19 pandemic - a cross-sectional survey

Study objectives
What is the burnout risk among anesthesiology residents in Brazil increased during the COVID-19 pandemic?

Ethics approval required
Old ethics approval format

Ethics approval(s)

Approved 28/11/2020, Comitê de Ética em Pesquisa Faculdade de Medicina do ABC (Avenida Lauro Gomes, 2000 - 2º andar - prédio: CEPES – Santo André – SP - Brazil; +55 (11) 4993-5453; cep@fmabc.br), ref: CAAE: 39505120.7.0000.0082

Primary study design
Observational

Study design
Nationwide observational cross-sectional study

Study type(s)
Screening

Health condition(s) or problem(s) studied
Burnout risk in anesthesiology residents

Interventions
Participants will answer an online survey that takes less than 5 minutes to complete.

Participants will be stratified for burnout risk based on the Oldenburg Burnout Inventory (OLBI). An overall score above 4.73 will classify residents as being “at risk” of burnout, while scores beyond 2.33 for exhaustion and 2.40 for disengagement will classify residents as “high risk” for burnout. Participants’ individual and work-related factors will be analyzed by two logistic regressions, with the outcomes “at risk” and “high risk” for burnout. Significant results from those regressions will be included in a multiple linear regression model with the OLBI score as the outcome variable. Beta coefficients will be used to standardize the correlations and semi partial correlation will determine the percentage of correlation between each factor and the OLBI score. Beta coefficients above or equal to 0.2 will determine the strength of correlation as moderate to strong, while those below 0.2 as weaker correlations. If a question with adaptive options is significant, a sub-analysis will be conducted by multiple regression or correlation, as appropriate.

Intervention Type
Other

Primary outcome(s)
Burnout risk measured using the Oldenburg Burnout Inventory at a single time point.

Key secondary outcome(s)
Measured using self report at a single time point:
1. Age (years)
2. Gender
3. Having children
4. Post-graduate year
5. Country's region
6. Regular physical activity
7. Cigarette smoking
8. Alcohol consumption
9. Drug consumption
10. Presence of emotional support
11. Spirituality considered an important aspect of life

12. Current psychological or psychiatric treatment
13. Access to COVID-19 tests in the residency program
14. Self-perception regarding the risk of COVID-19 contamination in the residency
15. Felt safe with the individual protection equipment provided
16. Referred institutional COVID-19 protection protocol
17. Resident diagnosed with COVID-19
18. Workload change during the pandemic
19. Weekly working time before the pandemic
20. Received practical training to assist COVID-19 patients
21. Felt capable of assisting patients with COVID-19 (or suspected infection)
22. Felt coerced or pushed to assist patients with COVID-19
23. Relocated to COVID-19 ICU/ward
24. Moved to a new house due to the pandemic
25. Considered abandoning the anesthesiology training due to the pandemic

Completion date
02/03/2021

Eligibility

Key inclusion criteria
1. Anesthesiology residents in their 1st, 2nd, and 3rd year of training.

Participant type(s)
Health professional

Healthy volunteers allowed
No

Age group
Adult

Sex
All

Total final enrolment
205

Key exclusion criteria
1. Refusal to sign the e-consent form

Date of first enrolment
12/01/2021

Date of final enrolment
02/03/2021

Locations

Countries of recruitment

Brazil

Study participating centre
Faculdade de Medicina do ABC
Av. Lauro Gomes, 2000 - Vila Sacadura Cabral
Santo André
Brazil
09060-870

Sponsor information

Organisation
Faculdade de Medicina do ABC

ROR
https://ror.org/047s7ag77

Funder(s)

Funder type
University/education

Funder Name
Faculdade de Medicina do ABC

Alternative Name(s)
ABC Medical School, FMABC

Funding Body Type
Government organisation

Funding Body Subtype
Local government

Location
Brazil

Results and Publications

Individual participant data (IPD) sharing plan

The datasets generated during and/or analysed during the current study are available from the corresponding author on reasonable request.
The dataset analyzed during the current study will be available to researchers who provide a methodologically sound proposal. The dataset will be available immediately following publication, with no end date. All information will be deidentified and should be used exclusively to achieve aims in the approved proposal. To gain access, data requestors will need to sign a data access agreement. Proposals should be directed to Natanael Pietroski dos Santos, pietroski@gmail.com.

IPD sharing plan summary

Available on request

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Results article	results	12/08/2022	05/04/2023	Yes	No
Participant information sheet	in Portuguese		21/09/2021	No	Yes
Protocol file			21/09/2021	No	No