





"I feel like I should be doing more": mental suffering and medical training in quarantine

"Sinto que deveria estar fazendo mais": sofrimento mental e formação médica na quarentena

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ABSTRACT | INTRODUCTION: The COVID-19 pandemic is the first experience of social distancing indicated on a large scale. It is important to note its repercussions on medical students' training and future practices. **OBJECTIVE:** Thus, we investigated the effects of quarantine on students' mental health status and its relationship with study routines and practices based on the medical socialization framework. **METHOD:** Qualitative research was carried out with students from the Faculdade de Medicina da Universidade Estácio de Sá (campus Vista Carioca) – Rio de Janeiro-RJ, using a semi-structured electronic questionnaire; results were analyzed by content analysis. **RESULTS:** Most students reported feeling negatively affected by the quarantine. Changes in teaching conditions and social interactions, concern with risks and consequences for significant others, previous history of mental suffering, and social conditions of greater vulnerability, especially among female students, were associated with the negative effects. **CONCLUSION:** The pandemic highlights the intertwining of different aspects that shape the education and well-being of students, making it urgent to strengthen care strategies as well as reflect on the effects of training in the expression of suffering and seeking care.

KEYWORDS: Mental health. Quarantine. Students. Medical education. COVID-19.

RESUMO | INTRODUÇÃO: A pandemia de COVID-19 é a primeira experiência de distanciamento social indicado em larga escala. É importante observar suas repercussões sobre os alunos de medicina pela influência na formação e práticas futuras. **OBJETIVO:** Assim, investigou-se os efeitos da quarentena sobre a saúde mental dos acadêmicos e suas relações com rotinas de estudo e práticas a partir do referencial da socialização médica. **MÉTODO:** Realizou-se pesquisa qualitativa, junto aos estudantes da Faculdade de Medicina da Universidade Estácio de Sá (campus Vista Carioca) – Rio de Janeiro-RJ, aplicando-se questionário eletrônico semiestruturado e análise de conteúdo para interpretar os resultados. **RESULTADOS:** A maioria dos alunos referiu se sentir negativamente afetada pela quarentena. Mudanças nas condições de ensino e interações sociais, preocupação com riscos e consequências para pessoas significativas, história anterior de sofrimento mental, condições sociais de maior vulnerabilidade, especialmente entre as alunas, se associaram aos efeitos negativos. **CONCLUSÃO:** A pandemia ressaltou o entrelaçamento de diferentes aspectos que configuram a formação e bem-estar dos alunos, tornando urgente fortalecer estratégias de acolhimento e refletir sobre os efeitos da formação na expressão do sofrimento e busca de cuidados.

PALAVRAS-CHAVE: Saúde mental. Quarentena. Estudantes. Educação médica. COVID-19.

The global spread of the SARS-CoV-2 virus has become a major public health threat. The World Health Organization (WHO) had already been drawing up guidelines for coping with pandemics based on self-isolation and social distancing since 2009, and such measures were indicated massively from March 2020 during the COVID-19 pandemic.¹⁻⁴

Experiencing epidemics and confinement impact on well-being and mental health^{2,5}, especially if care measures do not bear in mind the context, magnitude of the threat, and particularities of the affected population.⁵ Moreover, youngsters, women, those with previous psychiatric diagnosis, the undereducated, and the ones in greater socioeconomic fragility are the most vulnerable.²

Among health professionals, greater exposure and risk for illness, stigmatization mingled with such risks, and concern for family members and coworkers are factors related to suffering.^{2,5} The need to make decisions against moral dilemmas, in conditions of uncertainty, also affects professionals significantly.^{5,6} As in the case of other university students, medical students, interns and residents are also affected⁷, since the changes in learning scenarios and concerns related to the quality of training may increase the insecurity, competitiveness, and mental suffering already observed in medical training⁸⁻¹⁰, and the effects of these circumstances need to be better addressed and followed up longitudinally.^{4,11,12}

This research investigated the psychological distress of medical students enrolled at a private medical school in the city of Rio de Janeiro (RJ) related to social isolation and factors related to their reactions, considering the complex nature of the COVID-19 pandemic and its social and health repercussions.¹³ Results are expected to provide a better understanding of the reality experienced in quarantine, to inform measures for welcoming and supporting students and, finally, to contribute to reflecting on medical socialization in a dynamic and contextualized manner.¹⁴⁻¹⁷

This is an exploratory, observational, and qualitative study conducted with medical students enrolled at a medical school in Rio de Janeiro – RJ.¹⁸ The perception of students' psychological distress, its influence on study habits and practical activities, and factors related to this experience were examined using an online questionnaire developed by the authors (Chart 1). Complaints associated with common mental disorders were the basis for assembling the section on suffering.⁹

The survey was advertised through student representatives, social media, and college coordination. The questionnaire was disclosed through Google Forms in August 2020. After the initial reading of the returned forms, answer repetition and saturation were identified, allowing the survey to be closed. Inclusion criteria were medical students (Universidade Estácio de Sá – campus Vista Carioca) who regularly enrolled from the 1st to the 12th period. The exclusion criteria were either not agreeing to participate in the research and/or not being regularly enrolled.

Prior to filling in the questionnaire, research subjects read the Informed Consent Form (ICF, available online) so that they could learn about the objectives and methodology used, consenting or not to join and ensuring confidentiality, privacy, and referral of any demands. All participants formalized their agreement by signing the ICF. The present study was approved by the Research Ethics Committee of the project's home university (CAAE: 33032620.5.0000.5284). The statements were identified by alphanumeric codes to respect respondents' privacy.

The material was analyzed using content analysis.¹⁹ This process was developed in three stages. The researchers read all the interviews in a floating mode to explore the set and discuss the initial impressions. Then, the material was taken again for the systematic delimitation of the analysis units and the elaboration of categories. The medical socialization approach guided the interpretation of the results.¹⁴⁻¹⁷

Table 1. Survey Questionnaire

About your quarantine experience	
Are you complying with quarantine measures?	() Y or () N
Why?	
How has the experience been?	
Who are you living with right now?	
How has living together been?	
About your internships and practical activities	
Do you work or have an internship in healthcare?	() Y or () N
Have you had contact with suspected cases of contagious diseases?	() Y or () N
At work or internship, do healthcare providers have access to personal protective equipment (PPE)?	() Y or () N
At work or internship, do healthcare providers receive guidance and support?	() Y or () N
Would you like to be working in the area?	() Y or () N
Why?	
About your study routine	
How has your study routine been?	
What factors influence that?	
About Your Mental Health	
How are you feeling?	
Have you noticed any of these symptoms?	() Sleep alteration, () tiredness, () anxiety, () anguish, () sadness, () difficulty concentrating, () discouragement, () tension, () change in appetite, () others.
Did you feel this way before?	
Have you performed any mental health follow-ups?	
Which one(s)?	
Have you ever taken or are you currently taking psychotropic medication?	
What have you done to help yourself in this quarantine?	

Source: The authors (2021).

Results: Quarantined students - suffering loop

Sample presentation

In this section, we will present and discuss the research results. Firstly, we will characterize the study population, followed by an examination of the categories. Regarding the sociodemographic characteristics of the 80 respondents (within a group of 1500 enrolled students), the average age was 26.3 years. Regarding gender, 16 self-identified as male, and 64 as female. On race and color, one self-identified as yellow, 12 as brown, 13 as black, and 54 as white. Concerning housing, 6 reported living by themselves, while 18 live with friends or boyfriend/girlfriend, and 56 live with family members. About the academic period, 2 were in the first period, 9 in the second, 8 in the third, 6 in the fourth, 7 in the fifth, 9 in the sixth, 6 in the seventh, 13 in the eighth, 15 in the ninth and 4 in the tenth period of college.

Despite the good distribution of respondents over college periods, there was a majority of female respondents and a gap in participation among final-year interns, which curbs the possibilities of comparing the experience between men and women, and at the end of the undergraduate period. However, this finding seems to confirm the differences in expressing difficulties and suffering between genders, as well as among students close to graduation.^{10,16,17}

Quarantine experience and mental distress

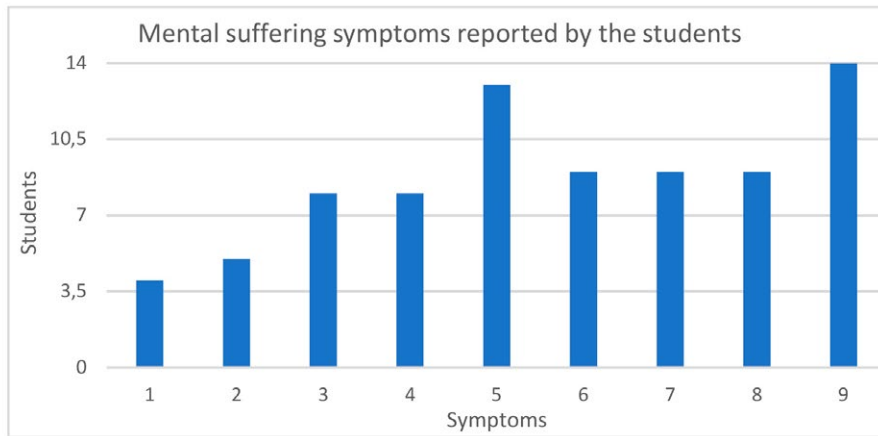
Studies suggest that subjective suffering triggered by quarantine may be wide, substantial, and long-lasting.² Answer analysis allowed us to identify the quarantine experience in two empirical categories: "stressed" and "adapted". These categories were compared heeding the presence of complaints of mental distress and when those arose (before or after the beginning of quarantine due to COVID-19), the study routines, and the expectation of performing practical learning tasks.

Initially, we show the frequency of mental distress complaints among our research subjects in Graph 1. Such results are similar to those found previously in a survey carried out among medical students in usual circumstances.^{9,20} Nevertheless, it is important to highlight that 43 students reported complaints from the beginning of the social isolation initiatives, which prompts the need for strategies to monitor and cope with the situation.^{2,4,5,10,12}

Most students have indicated that they were feeling negatively affected, reporting stress, boredom, or sadness, and were placed in the stressed category. Many of them were already feeling unwell before the pandemic, claiming to bear some of the symptoms inventoried in the questionnaire, which reinforces the literature that identifies mental distress in medical students.^{9,20,21}

While observing the group of stressed students, we noticed that those who reported more complaints (five or more) also reported a higher difficulty to study. It is not possible to infer causal relationships, but such association does not seem fortuitous considering the effects of psychic symptoms on quality of life and functionality.⁷

Graph 1. Mental suffering symptoms reported by the students



Source: The authors (2021).

The difficulties reported among stressed students in keeping their study routine were clustered in: structural inadequacy (study environment and access to computers and the internet), relational aspects (family, classmates, professors) and personal aspects (emotional distress). Thus, the quarantine experience shone light on other key elements in developing academic routines, such as home structure and social relationships. In the following statement, we see the effects of quarantine on study for a student who acknowledges emotional distress and builds up on domestic chores:

"I have got more things to do at home. I am studying, but I must deal with all other problems at home. I can't exclusively save the time for classes and studying." (A53).

Some students have reported being adapted to the quarantine experience and stated feeling reassured, adapted, or overcoming a challenge.

"At first, it was really difficult to adapt and follow a routine. I had irregular sleeping hours and struggled to fall asleep. At the same time, it was quite hard to maintain concentration and interest in classes for so long at the computer. I really missed interacting with other classmates and the professor, besides the external stimuli that keep us grounded. [...] However, when I got the test dates, I was able to organize myself better and study. I also joined my friends online by video call for studying, which helped a lot and pushed me." (A40)

As seen in this account, some elements helped in the adaptation process. The perspective of commitment to the professors, the educational institution, and her professional training led her to motivate and organize herself. Another significant element was the possibility of meeting with and learning from peers.²² Such actions could be developed in contexts of favorable domestic and relational structure, once again highlighting the role of invisible conditions mentioned earlier in the case of stressed students.

We observed fewer negative impacts of the quarantine on the study routine among those labeled adapted. Higher time availability for studying and comfort in the home environment were associated with this picture. Another interesting aspect was the recognition of difficulties and their association with emotional distress. Adapted students reported experiencing negative emotional symptoms, however, simultaneously, they interpreted such experience as a challenge to be understood and worked through.

As for expectations over practical activities, most students said they would rather be in practical scenarios at that moment. Helping and learning were the most recurrent justifications. Such motivations suggest a major moral commitment in the context of a health emergency.^{6,7} Moreover, these factors corroborate with the social expectations placed on medical students and physicians, as well as with the students' idealization of the profession.^{14,17}

*"My mother is a doctor in a health center in the countryside. When the pandemic started, physicians there stopped going to work. Because it was a poor community crammed with people, with COVID cases all over, the physicians abandoned the center to avoid getting infected because it took the city government too long to send PPE (personal protective equipment) to the professionals. So, seeing this gap, as many physicians got sick and others just abandoned ship the boat, makes me want to get out and help and do something. I wanted to know more, to be more advanced, I wanted to be more useful, the feeling of impotence is a "s***". And to realize that if you try to help you will probably mess things up even more because you don't know what you're doing is awful." (A33)*

In this report, the understanding of the struggles linked with care through the pandemic and the frustration of not feeling able to act as they believe to be ideal is crystal clear. The understanding of care characterized by conventional, individual medical care seems to guide the students' imaginary on their possibilities of intervention. Broader alternative actions, acknowledging the complexity of the situation and the importance of articulating different players and initiatives^{13,23}, could mitigate many students' sufferings related to the perception of uncertainty and powerlessness, besides expanding the awareness of interweaved factors influencing the pandemic in our context.^{13,23,24}

Among respondents, we recognized a gradual weakening in the ideals of the medical profession in more advanced periods, which might be associated with the progression in acquiring technical skills in training.¹⁷ The following statement illustrates the utilitarian character of the practical internship for some students, without mentioning the risks or the seriousness proper to the situation:

"I feel like I am wasting time I could spend on learning." (A16).

Few students reported unwillingness to either be on a practical internship or working at that time of the pandemic. Their reasons ranged from lack of confidence in performing to putting family members and themselves at risk, as well as to narrowing the number of people on the move. These motivations substantiate remarks among health care professionals regarding elements that increase distress and risk of illness^{6,7} and indicate that students are already sensitive to the challenges ahead.

Factors influencing students' quarantine

Factors influencing the experience of quarantine were among the investigated categories. Literature indicates that existing mental health issues, intensive college preparation, excessive study hours, sleep deprivation, negative self-perception and a highly competitive environment^{9,20} are among the factors responsible for triggering or enhancing suffering among students. Likewise, social, gender and racial issues have also been increasingly investigated.^{9,16} Our findings are in line with the literature.^{2,5} Several elements were simultaneously identified by the students, and five empirical categories were sorted out: emotional aspects, home experience, structure and resources, demands of the medical course and work.

Emotional aspects were found in most answers, displaying an important concern for students, as other studies have indicated.¹⁰ Negative emotions such as guilt, worry, and fear were flagged as individual factors influencing the reaction to quarantine. The following statement reflects this finding:

"The experience has been distressing. We don't know how long it'll last, and not having any escape valve from the occasional problems, even those from the times we are living, has not been easy." (A38).

Home experience was also a recurring element among interviewees. Most reported conflicting relationships, trouble involving household chores and/or clashes regarding quarantine compliance:

"...It's hard. I've got elderly parents who depend on me for everything done on the streets. The same happens with close aunts who rely on my help on a daily basis. I feel overwhelmed." (A25).

Students' overload in household chores was identified as they dwindle the time available for studying while triggering the experience of failing to meet course requirements. Notwithstanding, wherever the family coexistence happened to be harmonious, the dialog and the incentive for keeping students engaged in their studies were remarkable:

"Our coexistence feels great because my parents understand my need to study. Besides, I believe it will be the only time in my college life that this experience will be possible, I mean, me studying at home with them". (A20).

Recognizing the role of structure and resources was also relevant among respondents. Economic problems, lack of an organized study environment, and irregular internet connection were identified as significant aspects:

"My computer has broken down recently, and I am using a borrowed one. I don't have enough money to buy a new one or to get it fixed. I am afraid the person who lent it to me might need it back, and I end up without the means to study properly." (A11)

The next category focus on course demands. Struggles in adapting to online learning and the new routine, decreased performance, and high demands from professors through a number of assessments were pointed out by the students as factors associated with suffering. Few respondents reported being well-adapted to remote learning at that moment, which corroborates with another study that detected difficulty in adaptation and learning.¹²

Finally, paid work was mentioned by students who already work as health professionals. They identified fatigue and concern for being frontline workers through the COVID-19 pandemic as negative factors. Our findings support the literature that cites concern with being infected or infecting family members, and the uncertainties of the current situation as important causes of suffering among health care workers^{2,5,6}:

"At the beginning, I was very afraid, quite paranoid about the protective measures, today I am tired of it all!" (A46).

Only a single interviewee seemed pleased with being a frontliner as a means of fulfilling his duties as a health professional:

"I got back to the job market after the end of the school term to act as a COVID-19 frontliner. I felt the need to contribute to society in this regard." (A28).

Discussion

The results of this study highlight the importance of observing and welcoming the hardships and suffering of students strengthened during the pandemic quarantine period. They also reveal more structural problems concerning professional training. It is known that professional identity is forged by the phenomenon of socialization.¹⁵⁻¹⁷ The socialization process shapes the way people act in a given society through internalizing values and norms that occur from the complex entanglement of personal experiences, reflection on these experiences, and social interactions taking place in a given environment.¹⁵⁻¹⁷ Within this framework, the various learning environments/processes, classrooms, outpatient/hospital facilities, informal areas of social interactions, and the health care system itself affect the setting of a medical identity and how future professionals will deal with care practice challenges.¹⁵⁻¹⁷

Changes in teaching conditions and social interactions, along with concerns about risks and consequences for significant people, were important sources of distress for students in our study.^{4,7} On the other hand, our findings acknowledged that the pandemic affected our students in different ways. The previous history of mental distress, social conditions of higher vulnerability, reflected in household structure and personal relationships, especially among female students, configured this difference.

Local interactions among COVID-19, other health issues, and socioeconomic conditions have impacted communities and disclosed structural vulnerabilities exposing populations to varying degrees. The syndemic perspective, i.e., the complex influence of biological and social interactions between different conditions upon a person's or a community's health status, makes it possible to face health problems in a contextualized way and to think of distinct interventions for each scenario.^{13,23,24}

In this sense, the appreciation of institutional spaces meant for dialogue between academic management, faculty, and students would enable identifying, reflecting, and intervening on the challenges posed by the pandemic for health education.²² Pushing forward the awareness of mental suffering related to the pandemic of COVID-19, socioeconomic conditions, and medical training may boost belonging and participation among players within the academic communities and empower critical thinking over the roles that medical schools play in student training.^{23,24} In conclusion, it may lead to the development not only more nuanced teaching and research approaches but also permeated by the dynamic understanding of the influence of the socio-cultural dimension over the health-disease phenomena.²⁵

Final Considerations

The pandemic and the care measures to face it have imposed new training scenarios and new interaction modes for medical students through a virtual environment. Inequalities, concerns with uncertainties and the consequences of the pandemic were major sources of suffering for the students in our study.

The approach to the health-disease phenomenon based on an individualistic approach curtails the grasp of the complexity of the social-sanitary situation, coping strategies, and possibilities of a more comprehensive and contextualized care.

Although this research was conducted at the beginning of the pandemic and applied through virtual means, limiting results and analysis, we argue that understanding students suffering has much to

gain with the adoption of a relational perspective, considering social micro-groups and local contexts. Thereby, it will be possible to emphasize the role of agency, resources, and strengths of subjects and academic communities, as well as to recognize the interaction among individual processes and sociocultural and broader environmental dimensions in health-disease processes.

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Authors' contributions

Müller MR has participated in all stages - conception, design, data analysis, article writing and approval of the version to be published. Albuquerque GA, Monnerat GR and Teixeira LMM have participated in the data collection, material analysis, article writing and approval of the version to be published.

Conflicts of interest

No financial, legal, or political conflicts involving third parties (government, private companies, and foundations, etc.) were declared for any aspect of the submitted work (including but not limited to grants and funding, advisory board participation, study design, manuscript preparation, statistical analysis, etc.).

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