

# COVID-19 biopsychosocial aspects by the medicine student community

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#### Abstract

**Objective:** To analyze the perception of medical students about the impact of the pandemic caused by coronavirus on their daily lives.

**Method:** quantitative, descriptive, observational, cross-sectional study, using an electronic questionnaire on the biopsychosocial aspects of medical students during the pandemic period.

**Result:** Of 211 investigated, 66.8% were female, aged between 17 and 25 years and 45% lived in Vitória, ES, Brazil. Electronic resources such as cell phones and individual computers were used by 47.4% of students. They had family members with pre-existing diseases (86.3%, hypertensive (28.2%) and diabetics (18.2%), being considered elderly (53.1%) and 54.2% of family members had already been affected by COVID -19. Regarding school performance, 38.4% are more or less satisfied. Regarding practical activities, 43% say they are very dissatisfied. In terms of psychological dimension, 29.2% are more or less satisfied with their home productivity and 30.7% emotionally prepared to carry out online activities daily. Religious practice as a positive support was reported by 52.4% of students and the most chosen words among them were: love, gratitude and responsibility.

**Conclusion:** The female presence in courses in the health area is increasingly consolidated. The most frequent diseases in families are the most prevalent in Brazil, such as hypertension and diabetes. Even the majority of students living with their parents and in satisfactory socioeconomic conditions, it is clear that online learning is being considered regular, especially in terms of practical activities.

**Keywords:** coronavirus; social isolation; communication; medical education; information sciences

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## ● INTRODUCTION

COVID-19, caused by SARSCoV-2, one of the seven subtypes of coronavirus that cause disease in humans, emerged in China in December 2019. The virus subsequently spread throughout the world and on March 11th, 2020 the World Health Organization (WHO) declared SARSCoV-2 infection as a pandemic and this important health problem was incorporated into the world<sup>1,2</sup>. With the aim of reducing the spread of the virus and preventing the collapse of the Unified Health System (SUS), the WHO, together with the governments of each country, declared the guidelines for social isolation.

The risk of infection caused several significant changes to occur in the contemporary scenario, ranging from interpersonal relationships to the cultural behavior of the entire society. Thus, the educational sector was the first to suffer the effects of pandemic, with the suspension of face-to-face classes in all educational institutions<sup>3</sup>. In this context, health students have become an important portion of population that needed to be observed and studied due to the possibility of being greatly affected by pandemic, whether in social, psychic or pedagogical scope<sup>4</sup>.

The distance measure prevented undergraduates from meeting for learning in classrooms, laboratories or studios. This even includes outpatient activities and visits to wards, limiting, in a very restrictive way, the students who absolutely need to carry out and learn from various forms of practical activities<sup>5-7</sup>.

The new pedagogical model implemented due to the pandemic may be fully acceptable for courses that do not require daily practical contact to exercise the future profession, which undoubtedly does not apply to the medical field. In this way, the student is doubly affected: both by his inexperience with the new distance pedagogical method and by absence of effective supervision that provides learning in service practice, very necessary for student's training quality, limiting the experiences of living, examine, treat and work together<sup>8</sup>. Internships are essential for students to acquire specific skills, experience and confidence in training. With all these changes, many concerns have arisen regarding the students' learning level and also in relation to their psychosocial and emotional aspects<sup>9,10</sup>.

The transition of medical students' workplace from the school environment to their home environment results in isolation, increased use of e-mails, messages on electronic platforms and struggle to establish boundaries between work and home environments, which can substantially affect the socio-educational environment. When faced with so many difficulties, the student is affected by insecurity, tiredness, sadness and needs a greater effort not to let himself down. In addition to all the obstacles that he must overcome, the future doctor needs to learn to behave in a way that meets the demands of professors, colleagues and society<sup>11</sup>.

Social distancing and suspension of classes were detrimental to the performance of medical students in all periods of academic training<sup>12</sup>. A study that evaluated the perception of medical students about medical education, described the gains and losses of the pandemic and

reinforced that although there are several negative impacts, with educational losses, the pandemic also represents an opportunity for changes and the introduction of new learning methodologies.<sup>13</sup> In Ghana, a descriptive and explanatory study revealed that COVID-19 had a significant impact on education.<sup>14</sup>

The risk of contamination is already a stress factor that brings fear and anguish in the hospital environment. The large number of patients and deaths in the context of the pandemic generates a high occupational psychosocial risk for those working on the front lines.<sup>15</sup> Workers in the health field are described as the most psychologically affected population category, given that they experience additional stressors such as: increased workload, fear of contaminating family members and being contaminated, misinformation and mistrust in government guidelines and the perception of the deconstruction of health systems.<sup>16</sup> All this acts in line with a greater negative emotional charge for the undergraduate who will face great challenges.

In the available literature, many studies have focused on the psychological impacts of the global epidemic on students, physicians, patients, children and adults<sup>17-21</sup>. A study on the impact of the pandemic on mental health in medical students at the Educational Foundation of the Municipality of Assis (FEMA) found a higher prevalence of moderate and severe symptoms of anxiety and depression among students during the SARSCoV-2 pandemic.<sup>22</sup> In France, two-thirds of university students reported anxiety during confinement, and those most affected were those who did not live with their parents<sup>23</sup>. Another study conducted in China analyzed the psychological state of 509 students, and observed that levels of anxiety and depression increased significantly<sup>17</sup>. Another study conducted in Texas with 2,031 students also found that most respondents had depression, anxiety and/or suicidal thoughts<sup>24</sup>.

The identification of these biopsychosocial risk factors associated with the analysis of the perception of the problems presented by medical students can help in the adoption of preventive and educational measures to encourage, with scientific support, the undergraduate student to adapt more easily and with better social, academic and emotional benefit to the pandemic period. This study aimed to analyze the perception of medical students about how the impact of the SARSCoV-2 pandemic affected their daily lives.

## ● METHOD

This study obtained information regarding the biopsychosocial aspects of medical students during the SARSCoV-2 pandemic period through a Likert scale questionnaire.

The study included female and male students, with no recommended age group, who study medicine at the Higher School of the Holy House of Mercy of Vitória (EMESCAM) and students who attend the Holy House of Mercy of Vitória Hospital (HHMVH).

For data collection, the Google Forms online digital platform was used, with closed and/or objective questions in the form of multiple choice. The questionnaire was divided into 6 dimensions involving the following aspects: Social,

Socioeconomic, Biological, Academic, Psychological and Spiritual Dimensions.

Data were exported to an EXCEL spreadsheet and organized by frequencies and percentages and summarized by statistical measures such as mean and standard deviation according to their nature. The association between variables and the correlation between them was verified using Pearson’s correlation, using a confidence level of 5% (p-value < 0.05). The analysis was performed using the Statistics Software, version 10.0. 25

The research was approved by the Research Ethics Committee of Emescam with Opinion No. 4,239,044.

● **RESULT**

Of the 211 participants, 66.8% were female with an average age of 23 years. Most students were in the second period (n = 56; 26.5%), were of white ethnicity (n = 171; 81.04%), lived in Vitória - Espírito Santo (n = 95; 45%) and had siblings (n = 178; 84.4%).

**Table 1:** Significant Pearson correlation values (re p - value ) ( p <0.05) of the biopsychosocial aspects of EMESCAM medical students during the SARSCoV-2 pandemic period

<b>Electronic resource</b>	
Impacts on daily routine	r = 0.3290 and p = 0.001
Online bibliography search	r = 0.2910 and p = 0.004
Emotional state considering the global context	r = 0.2263 and p = 0.028
Diseases in the family	
school performance level	r = 0.4135 and p = 0.0001
extra-class daily emotions	r = 0.2212 and p = 0.032
School performance	
Impacts on the daily study routine	r = 0.2060 and p = 0.046
Remote learning satisfaction	r = 0.3815 and p = 0.0001
Practical activities	r = 0.2611 and p = 0.011
Theoretical content	r = 0.3254 and p = 0.001
Online activities	r = 0.4630 and p = 0.0001
Satisfaction with living at home	r = 0.2624 and p = 0.011
Home productivity	r = 0.4824 and p = 0.0001
Emotional state, considering the global context	r = 0.4791 and p = 0.0001
Impacts on the daily study routine	
Satisfaction with remote teaching	r = 0.2568 and p = 0.012
Electronic resource available	r = 0.2302 and p = 0.026
Satisfaction with practical activities	r = 0.2680 and p = 0.009
Daily sleep quality	
Period in which the student attends	r = 0.2080 and p = 0.044
Proximity to their values	r = 0.2604 and p = 0.011
SARSCoV-2 infection by family members in the same household	
religious practice	r = 0.2039 and p = 0.049
Religion as a positive support	r = 0.2118 and p = 0.040

Regarding the socioeconomic aspect, a small portion of the students were on scholarships and 90.5% paid (Table 2). All had some electronic resource for monitoring online activities, with 47.4% using individual computers and cell phones.

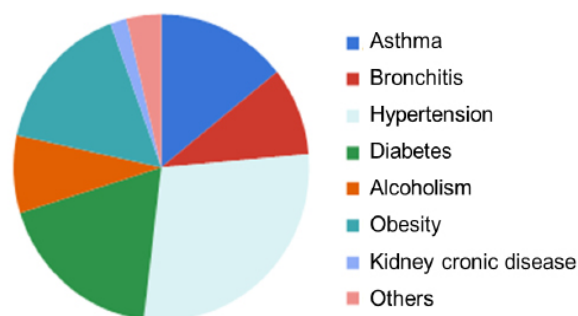
The electronic resource aspect was positively correlated with the impacts caused on the students’ daily routine, with satisfaction regarding the online bibliography search and with the emotional state considering the global context (see Table 1). More than 60% of students lived with their family and 21.3% alone.

**Table 2:** Biopsychosocial aspects of the socioeconomic dimension of EMESCAM medical students during the SARSCoV-2 pandemic period

Indicators	Aspects investigated	n	%
Residence	house with parents	71	33.6
	house alone	4	1.9
	apartment with parents	71	33.6
	apartment alone	45	21.3
	with relatives	3	1.4
	Student's accommodation	16	7.6
	Hotel	0	0.0
Student condition	Others	1	0.5
	payer	191	90.5
	scholarship holder	20	9.5
	Cell phone	8	3.8
	Cell phone and tablet	2	0.9
	Family computer	3	1.4
	Family computer and mobile phone	6	2.8
	Family computer, mobile phone and tablet	4	1.9
	Family and individual computer, mobile phone	10	4.7
	Family and individual computer, mobile phone, tablet	9	4.3
	Individual computer	20	9.5
	Personal computer, mobile phone	100	47.4
	Individual computer, mobile phone, E-reader ( Kindle )	1	0.5
Electronic resource	Individual computer, mobile phone, tablet	46	21.8
	Individual computer, mobile phone, tablet, Smart watch	2	0.9

Regarding the biological dimension, 86.3% (n=182) of the students reported having family members with some type of illness and 53.1% (n=112) lived with people over 60 years of age. When asked about COVID-19, most participants (82.4%; n=173) did not report infection by the virus in people living in the same house, but more than half (54.2%; n=115) had someone in their family infected. Of those who answered yes to SARSCoV-2 infection in their home (n=37)<sup>19</sup>, reported that other family members were infected with the virus and four students answered that they themselves had COVID-19. There was a significant correlation between illness in the family and the students' level of school performance and daily extra-class emotions (see Table 1).

Systemic arterial hypertension was the most frequent disease in the students' relatives 28%, followed by diabetes 18.2%, obesity 16%, asthma 14.4%, bronchitis 9.5%, alcoholism 8.2% and chronic kidney disease 1.8%. Other diseases were reported by 3.8% of the students and in 4 questionnaires there were records about heart problems in family members (Figure 1).



**Figure 1:** Illnesses in the family reported by EMESCAM medical students

In the evaluation of educational aspects, 34.8% of students felt more or less satisfied with remote teaching and 43.0% were very dissatisfied with practical activities. Regarding the electronic resource available to accompany remote teaching, 51.2% were very satisfied and 41.4% reported being very satisfied with the search for online bibliographic information. When asked about the impacts of COVID-19 on the daily study routine, 32.9% of students

felt dissatisfied and 38.4% classified their contribution to school performance as more or less satisfied. Regarding online discussions and theoretical content, more than 30% responded they were more or less satisfied and another

part felt satisfied (27.5 and 29.5%, respectively). The level of use in the online activities of the disciplines seemed to be lower, as 33.6% are more or less satisfied and 24.2% dissatisfied (Table 3).

**Table 3:** Educational aspects of EMESCAM medical students during the SARSCoV-2 pandemic period

Academic Dimension	Scale*									
	1		2		3		4		5	
	n	%	n	%	n	%	n	%	n	%
School performance	9	4.3	25	11.8	81	38.4	73	34.6	23	10.9
Electronic resource available	4	1.9	15	7.1	28	13.3	56	26.5	108	51.2
Impact on study routine	33	15.7	69	32.9	67	31.9	33	15.7	8	3.8
Learning by remote teaching	32	15.2	67	31.9	73	34.8	25	11.9	13	6.2
Practical activities	89	43.0	51	24.6	47	22.7	13	6.3	7	3.4
Online discussions	10	4.7	38	18.0	76	36.0	58	27.5	29	13.7
Theoretical content	15	7.1	17	8.1	74	35.2	62	29.5	42	20.0
Online bibliography search	3	1.4	8	3.8	41	19.5	71	33.8	87	41.4
Online activities	26	12.3	51	24.2	71	33.6	42	19.9	21	10.0

Source: Own authorship. \* 1 - very dissatisfied; 2- dissatisfied; 3 - more or less satisfied; 4 - satisfied; 5 - very satisfied.

A positive correlation was observed between school performance and the impacts caused on the daily study routine, satisfaction with remote learning, practical activities, theoretical content and online activities. Performance also had a significant correlation with psychological aspects, such as satisfaction with living together, with home productivity and with emotional aspects, considering the global context. The impacts caused on study routine were correlated with satisfaction of remote teaching in meeting learning needs compared to traditional teaching, with the available resources and with satisfaction with practical activities (Table 3).

Most EMESCAM students were more or less satisfied with their home productivity 29.2%, with their

emotional state when carrying out daily activities 30.7% and with emotional state within global context during pandemic 25% (Table 4). The pandemic also affected students' satisfaction with their physical activity, as 23.6% felt dissatisfied. However, it was observed that most of the students were satisfied with their diet, 27.4% very satisfied with their daily sleep, 30.2% satisfied with living at home and 27.8% with the extra-class emotional environment. Regarding social life, participants felt more or less satisfied with their relationship with friends 37.3% and with overall social life 34.4%. The quality of daily sleep was correlated with the period in which the student is studying and with the proximity to their values (Table 4).

**Table 4:** Psychological aspects of EMESCAM medical students during the SARSCoV-2 pandemic period

Psychological Dimension	Scale*									
	1		2		3		4		5	
	n	%	n	%	n	%	n	%	n	%
Physical activity	50	23.6	42	19.8	44	20.8	36	17.0	40	18.9
Emotional state when performing online activities	37	17.5	56	26.4	65	30.7	35	16.5	19	9.0
Extracurricular emotional state	23	10.8	48	22.6	58	27.4	59	27.8	24	11.3
Food	11	5.2	35	16.5	45	21.2	62	29.2	59	27.8
Living at home	8	3.8	30	14.2	50	23.6	64	30.2	60	28.3
Relationship with friends	13	6.1	33	15.6	79	37.3	59	27.8	28	13.2
Daily sleep	22	10.4	31	14.6	48	22.6	53	25.0	58	27.4
Emotional state in global context	42	19.8	37	17.5	53	25.0	43	20.3	37	17.5
Home productivity	28	13.2	47	22.2	62	29.2	48	22.6	27	12.7
Global Social Conviviality	34	16.0	58	27.4	73	34.4	34	16.0	13	6.1

Source: Own authorship. \* 1 - very dissatisfied; 2- dissatisfied; 3 - more or less satisfied; 4 - satisfied; 5 - very satisfied.

Regarding spiritual aspect, 26.4% of students practice some type of religion and for 52.4% this practice was reported as a positive support for this moment of pandemic (Table 5). These two factors are correlated with SARSCoV-2 infection by family members in the same household (Table 1). Of the participants, the majority

(42.9%) did not practice meditation, mindfulness or any other type of interiorization, even without being connected to religion. More than 60% of the participants reported that they were getting closer to their values and 26.9% participated in solidarity movements a few times.

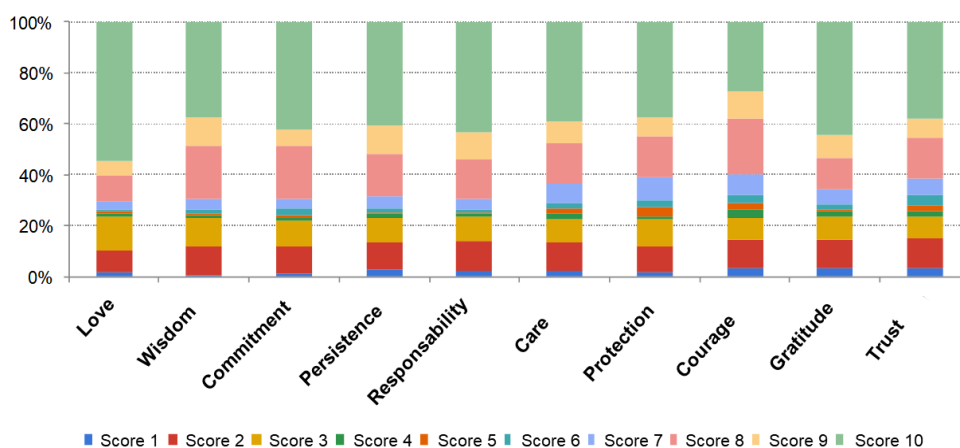
**Table 5:** Spiritual aspects of EMESCAM medical students during SARSCoV2 pandemic period

Spiritual dimension	Scale*									
	1		2		3		4		5	
	n	%	n	%	n	%	n	%	n	%
Practice any religion	37	17.5	36	17.0	40	18.9	43	20.3	56	26.4
Religion as support	11	5.2	6	2.8	33	15.6	51	24.1	111	52.4
Do meditation or mindfulness	90	42.9	30	14.3	32	15.2	33	15.7	25	11.9
Participated in solidarity	49	23.1	41	19.3	57	26.9	39	18.4	26	12.3
Proximity to your values	9	4.2	17	8.0	53	25.0	68	32.1	65	30.7

Source: Own authorship. \* 1 - very dissatisfied; 2- dissatisfied; 3 - more or less satisfied; 4 - satisfied; 5 - very satisfied.

In the analysis of items from the spiritual aspect, love, wisdom, commitment, persistence, responsibility, care, protection, courage, gratitude and trust, it was

possible to identify positive aspects of the pandemic, as most students gave a score of 10 (Figure 2).



**Figure 2:** Emotional aspects of EMESCAM medical students during the SARSCoV-2 pandemic period

● **DISCUSSION**

COVID-19 has substantially influenced the lives of medical students, particularly in practical medical education, which has gone through several obstacles to ensure continuous learning quality for medical students.<sup>26</sup> In the present study, students' dissatisfaction was observed in relation to the new remote teaching and practical activities. This result was already expected, since, with the increase in the number of cases of the disease, all educational institutions suspended face-to-face classes, restrictively limiting students who need to carry out and learn from various forms of practical activities.<sup>5-7</sup>

The new learning method seems to have an effect on students' academic performance, home productivity and emotional performance, considering the global context, being positively correlated in this study. Other authors found similar results and related the impact on the anxiety level of university students with financial constraints, remote online learning and uncertainty related to their academic performance.<sup>27, 28</sup>

Indeed, limiting the clinical experience to medical

students and replacing it with virtual clinical activities is a challenge and, consequently, does not fully help students to acquire surgical or clinical skills as in practical activities.<sup>26</sup> The in-service internship is crucial so that medical students can accumulate clinical experience as a general practitioner and test their interests in the various subspecialties and so that they can exercise their future profession, justifying the dissatisfaction of the participants of this study with practical activities.<sup>29</sup> Studies aimed at understanding the impacts that the pandemic has been causing on students are important to help academic institutions make effective policy changes, through collaborative research groups and virtual platforms to offer educational and mentoring opportunities for medical students .

Many students may feel unprepared for residency and the job market in the post-pandemic period due to lack of hands-on classes. A study carried out with medical students in the United Kingdom showed the impact of the pandemic on training medical students was significant, with a negative effect on students' confidence and preparation, since in addition to having their internship canceled,

final year students were asked to assist or start working in hospitals, ahead of schedule, to help the National Health System workforce. On the other hand, helping in hospitals during the pandemic meant a valuable learning opportunity<sup>23,30</sup>.

In the present study, it is clear the impact that remote teaching had on students' daily study routine and on carrying out practical activities, when compared to traditional teaching. Studies have demonstrated the challenges of remote learning, such as poor Internet connectivity, unfavorable home study environment, and difficulty concentrating<sup>31,32</sup>. A study on the impact of the lockdown on undergraduate and graduate student learning during the pandemic in India found that around 70% of students were involved in distance learning and most also used some electronic resource<sup>32</sup>. The electronic resource was correlated with satisfaction regarding the search for online bibliography and most students felt satisfied with doing surveys through digital means. Therefore, in this case, the adoption of online learning strategies seems to have positively impacted the learning efficiency and performance of EMESCAM students, as access to technology and the Internet may have facilitated everyday study life.

However, it is worth noting that many students may be facing problems related to poor Internet connectivity and an unfavorable study environment at home, which directly interferes with academic performance and execution of online activities<sup>18</sup>. This may explain students' dissatisfaction with the impacts of SARSCoV-2 on their daily study routine. Therefore, it can be inferred that having good resources available, whether electronic or pedagogical, is not enough for efficient student learning, as other aspects must be taken into account, such as psychological, social and socioeconomic aspects<sup>32</sup>. This relationship can be observed in this study, because analyzing the psychological aspect, most EMESCAM students are more or less satisfied with their productivity at home and with their emotions when carrying out daily activities.

Regarding the biological factor, it is known that older age is a risk factor for the progression of COVID-19, which can lead to greater complications in the clinical picture and even death<sup>33</sup>. In addition to age, some diseases, such as systemic arterial hypertension, diabetes, asthma and obesity, may increase these risks for patients infected with SARSCoV-2<sup>34,35</sup>. Therefore, for students who live with a family member over 60 years of age and/or with illnesses, the psychological pressure may be greater and this directly interfere the emotions and way of dealing with the profession, especially in the last periods of medicine, where the face-to-face internship is essential and the risks of contamination increase. In China, a study showed that having a relative or acquaintance infected with SARSCoV-2 is an independent risk factor for anxiety among university students<sup>19</sup>.

In a Chinese series, with 46,248 patients infected with SARSCoV-2, the most frequent comorbidity among individuals was hypertension<sup>36</sup>. Another study also carried out in China showed that the most frequently observed comorbidity in patients who died was cardiovascular

disease<sup>37</sup>. Hypertension and diabetes are chronic diseases that are becoming increasingly common in the general population, and most patients with both disorders are at risk of premature microvascular and macrovascular complications<sup>38</sup>.

Although COVID-19 affects in most cases the lung, causing severe acute respiratory syndrome, it is known that the virus also affects the cardiovascular system and increases morbidity and mortality in patients, causing myocardial dysfunction in individuals with previous cardiovascular comorbidities, in addition to diabetes, with a higher risk of death<sup>39</sup>. Identifying the presence of these diseases in family members is essential to protect them and reinforces the need to maintain social distancing and health standards for disease prevention.

Social distancing has been the best way to prevent the spread of the new coronavirus, thus preventing the collapse of the national health system. However, a new concern arises: mental health of the population. The pandemic has brought about a drastic change in people's behavior, which has caused psychological problems and mental disorders such as panic disorder, anxiety and depression<sup>40,41</sup>. Analyzing the result of the psychological aspect through a questionnaire, it was possible to observe less satisfaction with their emotional state, both when carrying out online activities and within the global context in times of a pandemic.

Social restriction has caused a worsening of people's lifestyle and an increase in health risk behaviors, such as a reduction in physical activity levels and an increase in sedentary behavior. This was observed in the present study, most students feel dissatisfied with their physical activity. Another concern, along with the decrease in physical activity, is changing eating habits. The closing of stores led to an increase in supermarket purchases and the consumption of ultra-processed and energy-dense foods, such as chips, popcorn, chocolate and ice cream<sup>42</sup>. However, in this study, most of the students are satisfied with their diet and living together at home. Most of the participants live with their parents and this socioeconomic factor may be related to this result, as the social interaction between family members and the support that the members offer decrease the levels of negative emotions and generate an improvement in eating habits<sup>43</sup>.

Another way to promote interaction between individuals and reduce negative mental impacts during social isolation was the use of social media, with meeting rooms among friends and family<sup>44</sup>. The possibility of staying connected with the people you love through remote meetings may be the main factor that made participants feel more satisfied with their relationships with friends and with their overall social life. These results are statistically explained by the positive correlation between the electronic resource and the students' emotional state, considering the global context.

Analyzing the spiritual aspect, the results suggest that religious practice can act as a balm for the soul, and that it is associated with better emotional health outcomes for EMESCAM students. Religious faith makes an important difference in people at this challenging time in history, often representing a rock they need to cling to,

meaning in some cases even better health<sup>45,46</sup>. These results are corroborated by the positive correlation between the religious practice factor and the positive support it provides with the SARSCoV-2 infection factor in family members living in the same home ( $p < 0.05$ ). Therefore, in this study, religiosity and the connection with something higher can be considered a positive factor in coping with changes in lifestyle caused by SARSCoV-2.

Although the pandemic brought several emotional and psychological disorders, due to the changes caused in the daily routine of studies and work of the population, it is a fact that social isolation also brought a new look at oneself, and made human beings question their values, principles and even their lifestyle. This is noticeable when we analyze the results of the questionnaire, as most students feel that they are getting closer to their values. Although much is said about the negative effects of the pandemic, it is necessary to consider the positive points that every situation makes possible, such as self-knowledge and building better human beings capable of understanding that not everything is in their control and the possibility of being able to spend more time with the family<sup>47</sup>.

Several studies have been carried out in order to investigate the effect of the pandemic on the learning, achievement and performance of medical students or its effect on the emotional and psychosocial state of students. However, there are few studies in the literature

that have analyzed the impact of the COVID-19 disease by addressing different biopsychosocial aspects, such as the present study. Therefore, this work contributes with more information on the subject, adding knowledge in the area and serving as a basis for future studies.

## ● CONCLUSION

The SARSCoV-2 pandemic impacted the study routine of medical students at Emescam differently and also led to questions about values and principles.

During the COVID-19 pandemic, it was observed that the study routine and daily life of Emescam medical students were negatively impacted, causing dissatisfaction with face-to-face practical activities and the feeling that remote teaching did not offer enough tools for the acquisition skills necessary for medical training. However, the situation experienced led to the questioning of values and principles, with love, gratitude and responsibility as influential words.

These findings can broaden the understanding of academic everyday life and collaborate in a teaching perspective in view of the new way of educating with medical institutions.

With this study, it is expected to better broaden the understanding of academic daily life and collaborate in a teaching perspective in view of the new way of educating together with medical institutions.

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### Abstract

**Objetivo:** Analisar a percepção dos estudantes da medicina sobre o impacto da pandemia causada pelo coronavírus no cotidiano.

**Método:** quantitativo, descritivo, observacional, transversal, por meio de questionário eletrônico sobre os aspectos biopsicossociais de estudantes da área de medicina, durante o período da pandemia.

**Resultado:** Dos 211 investigados, 66,8% eram do sexo feminino, com idade entre 17 a 25 anos e 45% residiam em Vitória, ES, Brasil. Recursos eletrônicos como o celular e computador individual eram utilizados por 47,4% dos estudantes. Possuíam familiares com doenças pré-existentes (86,3%0, hipertensos (28,2%) e diabéticos (18.2%), sendo considerados idosos (53,1%) e 54,2% dos familiares já haviam sido acometidos pela COVID-19. Sobre o desempenho escolar, 38,4% estão mais ou menos satisfeitos. Em relação as atividades práticas, 43% se dizem muito insatisfeitos. Diante da dimensão psicológica 29,2% estão mais ou menos satisfeitos com sua produtividade domiciliar e 30,7% emocionalmente preparados para realizar atividades online diariamente. A prática religiosa como apoio positivo foi relatada por 52,4% dos estudantes e as palavras mais escolhidas entre eles foram: amor, gratidão e responsabilidade.

**Conclusão:** A presença feminina nos cursos da área da saúde está cada vez mais consolidada. As doenças mais frequentes nas famílias são as mais prevalentes no Brasil, como hipertensão e diabetes. Mesmo a maioria dos estudantes residindo junto aos pais e em condições socioeconômicas satisfatórias, percebe-se que o aprendizado online está sendo considerado regular, principalmente frente as atividades práticas.

**Palavras-chave:** Coronavírus; Isolamento social; Comunicação; Educação médica; Ciência da informação

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