

THE PERCEPTION OF MEDICAL STUDENTS ABOUT THEIR PARTICIPATION IN A PROGRAM TO COPE WITH COVID-19

A PERCEPÇÃO DOS ESTUDANTES DE MEDICINA SOBRE SUA PARTICIPAÇÃO EM UM PROGRAMA DE ENFRENTAMENTO AO COVID-19

LA PERCEPCIÓN DE LOS ESTUDIANTES DE MEDICINA SOBRE SU PARTICIPACIÓN EN UN PROGRAMA PARA HACER FRENTE AL COVID-19

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ABSTRACT: This article aims to analyse the perceptions of Brazilian medical students about their participation in the program "Brasil Conta Comigo", which proposes to insert health students in different contexts amid the COVID-19 pandemic. A cross-sectional study was carried out among Brazilian senior medical students at a public university that answered a self-applied questionnaire (76% response rate). From the students' perception, they emphasize their feeling of secure and preparedness for the clinical practice experience in a pandemic context. In addition, they also highlighted the importance of the program for their training as future professionals and pointed out negative aspects of this experience such as the distancing from their families and the anxiety in the face of an uncertain context. Nevertheless, the exposure of medical students to clinical practice in the context of a pandemic is an important factor in professional development. Medical students play a key role in public health, helping to offer assistance and health care to the country's most vulnerable population.

KEYWORDS: Medical education. Undergraduate medical education. Medical students. COVID-19.

RESUMO: Este artigo tem como objetivo analisar as percepções de estudantes de medicina brasileiros sobre sua participação no programa "Brasil Conta Comigo", que se propõe a inserir estudantes da área de saúde em diferentes contextos em meio à pandemia COVID-19. Foi realizado um estudo transversal com estudantes brasileiros de medicina do último ano de uma universidade pública que responderam um questionário autoaplicável (taxa de resposta de 76%). Os alunos enfatizaram seu sentimento de segurança e preparo para a experiência da prática clínica em um contexto de pandemia. Além disso, também destacaram a importância do programa para a formação dos futuros profissionais e apontaram aspectos negativos dessa vivência, como o distanciamento da família e a ansiedade diante de um contexto incerto. No entanto, a exposição dos estudantes de medicina à prática clínica no contexto de uma pandemia é um fator importante no desenvolvimento profissional. Os

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estudantes de medicina desempenham um papel fundamental na saúde pública, ajudando a oferecer assistência e cuidados de saúde à população mais vulnerável do país.

PALAVRAS-CHAVE: *Educação médica. Educação de graduação em medicina. Estudantes de medicina. COVID-19.*

RESUMEN: *Este artículo tiene como objetivo analizar las percepciones de los estudiantes de medicina brasileños sobre su participación en el programa "Brasil Conta Comigo", que propone insertar estudiantes de salud en diferentes contextos en medio de la pandemia COVID-19. Se realizó un estudio transversal entre estudiantes brasileños de medicina de último año de una universidad pública que respondieron un cuestionario autoaplicado (tasa de respuesta del 76%). Los estudiantes enfatizaron su sentimiento de seguridad y preparación para la experiencia de la práctica clínica en un contexto de pandemia. Además, también destacaron la importancia del programa para su formación como futuros profesionales y señalaron aspectos negativos de esta experiencia como el alejamiento de sus familias y la ansiedad ante un contexto incierto. Sin embargo, la exposición de los estudiantes de medicina a la práctica clínica en el contexto de una pandemia es un factor importante en el desarrollo profesional. Los estudiantes de medicina juegan un papel clave en la salud pública, ayudando a ofrecer asistencia y atención médica a la población más vulnerable del país.*

PALABRAS CLAVE: *Educación médica. Educación de pregrado en medicina. Estudantes de medicina. COVID-19.*

Introduction

Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) has spread worldwide in an extremely short period and the number of infected people is still increasing on a global scale (HE; DENG; LI, 2020; LIU *et al.*, 2020). Brazil was an exception until February 26, 2020, when the Brazilian Ministry of Health confirmed the first case of SARS-CoV-2 infection in the country (RODRIGUEZ-MORALES *et al.*, 2020). This moment was an important milestone for the region, whose population exceeds 640 million people, and which has faced recurrent significant outbreaks of infections declared as Public Health Emergencies of International Interest by the World Health Organization (BISCAYART *et al.*, 2020).

While the rapid escalation of coronavirus disease-2019 (COVID-19) continues, the world has taken extreme measures to curb viral spread, including suspending the functioning of public and private schools and universities (MARSHALL; WOLANSKYJ-SPINNER, 2020). Yet, it is in a context full of concerns regarding the care of patients and the safety of health professionals, that questions arise: Should medical education be suspended during the pandemic? What about the practical internship? What are the risks and benefits of the exposure of medical students to clinical practice in this context?

The COVID-19 pandemic-imposed changes in medical education worldwide, bringing to the central discussion the role of medical students in a pandemic context (ALMARZOOQ; LOPES; KOCHAR, 2020; BOODMAN; LEE; BULLARD, 2020; KANNEGANTI *et al.*, 2020; MARSHALL; WOLANSKYJ-SPINNER, 2020; TOKUÇ; VAROL, 2020). For many, exposure to clinical practice was interrupted with the suspension of the operation of universities, turning to distance learning, literature review activities and virtual assistance. (ALMARZOOQ; LOPES; KOCHAR, 2020; BOODMAN; LEE; BULLARD, 2020; KANNEGANTI *et al.*, 2020; MARSHALL; WOLANSKYJ-SPINNER, 2020; TOKUÇ; VAROL, 2020). On the other hand, in some locations students taking the last few years returned to clinical practice, but were removed from the wards and intensive care units where patients with COVID-19 are treated (WANG; TAN; RAUBENHEIMER, 2020).

The situation in Brazil was no different. Throughout March 2020, all states ordered the suspension of classes amid efforts to curb viral spread. In the same month, the federal government launched a joint strategic action by the ministries of Education and Health - "O Brasil Conta Comigo". This program aims to meet the need for a health workforce and provide a learning context for health students. As part of the undergraduate program, the strategic action invited students from the 5th and 6th years of medical courses and the last year of nursing, physiotherapy and pharmacy courses. The proposal is to insert these students to work with the public health system to combat COVID-19 and / or in the non-COVID-19 clinical care areas. With a weekly workload of 20 or 40 hours, these students can act at different levels of care and units of the public health system, such as primary healthcare units, emergency departments, and inpatient care wards among other contexts. Participation in this program is voluntary and, if interested, the student must perform a prior registration to regulatory authorities. As a bonus measure, participating students receive an aid grant in addition to a certificate (BRASIL, 2020).

The proposal and implementation of this program creates the possibility for medical students to act in health care in a pandemic context. However, it is of fundamental importance to understand the students' perceptions regarding their participation in this program. Therefore, this article seeks to understand the perceptions of medical students about their participation in the "O Brasil Conta Comigo" program during the COVID-19 pandemic in Brazil.

Methods

This is a cross-sectional study to assess the perceptions of medical students about their participation in the “O Brasil Conta Comigo” program. The study was conducted in a public university in Brazil. Participants were included if they were enrolled in the last year of medical school and participated in the “O Brasil Conta Comigo” program. There were no excluding criteria for sampling.

The researchers developed a 5-item instrument organized in a five-point Likert scale format, 1 yes/no item and an open-ended question on difficulties while participating in the program (Table 1). Afterwards, the instrument was presented to a panel of 4 judges, experts in education and medicine, for face and content validation.

Table 1 – Items of the questionnaire on health care and the program “O Brasil Conta Comigo”.

Question about health care	Very insecure	Insecure	Neutral	Secure	Very secure
Q1. In the current pandemic scenario, how do you feel about health care?					
Questions about the program "O Brasil Conta Comigo"	Strongly disagree	Disagree	Undecided	Agree	Strongly Agree
Q2. Do you believe that the program "O Brasil Conta Comigo" was fundamental in your academic formation?					
Q3. Do you believe that your role (as a medical student) in the context of the pandemic was fundamental in providing health care to the population?					
Q4. Do you believe that the activities proposed by the university were fundamental for your better preparation as a future medical professional?					
Q5. After completing the activities proposed by the university, did you feel safer and more confident in caring for a patient with COVID-19?					
Q6. Did you have any difficulties while participating in the program "O Brasil Conte Comigo?"	<input type="checkbox"/> Yes	<input type="checkbox"/> No			
Q7. If you answered "Yes", please quote and explain what were your main difficulties in participating in this program					

Source: Prepared by the authors.

This study was approved by the Research Ethics Committee of the Federal University of São Carlos (CAAE: 18399119.0.0000.5504). Participation in the study was voluntary and responses were anonymous. The questionnaire was available online for 4 weeks on the Google Forms platform.

The following data were gathered from those meeting inclusion criteria: age, sex (male, female) and the questionnaire. The answers to the questions that used a 5-point Likert scale were condensed into 3 categories (strongly agree / agree, neutral and strongly disagree / disagree). Categorical data are presented as counts and percentages, continuous data as medians and interquartile ranges.

All analyzes were conducted using R version 3.5.3 (The R Foundation for Statistical Computing, Vienna, Austria) in R-studio 1.1.463 (RStudio Inc., Boston, USA).

Results

Of the 33 senior medical students at the university where this research was carried out, a total of 25 students participated in the “O Brasil Conta Comigo” program, and of these 19 students agreed to participate in the study (76% response rate). The program consisted of a supervised internship of 14 weeks, divided into practical activities in the COVID-19 and non-COVID-19 emergency department, COVID-19 and non-COVID-19 inpatient ward, telemedicine assistance, and non-COVID-19 outpatient care. Participating students also received sessions of practical and theoretical training on protective equipment and measures along with scientific discussion of recently published research. Most participants were women (68.8%) with a median age of 24.5 (interquartile range 23 - 28) years, reporting feeling secure / very secure (81.2%) for the clinical practice experience in a pandemic context.

The majority (93.8%) of the students also reported believing that their participation in the program "O Brasil Conta Comigo" was fundamental for their academic training. And in this context, the same proportion of students reported that the activities proposed by the university were fundamental for their preparation as future professionals, and after these activities they felt securer and more confident to assist a patient with COVID-19. Accordingly, the majority (87.5%) of the students believed that their role (as a medical student) was fundamental to the health care of the population in this pandemic context (Table 2, Figure 1).

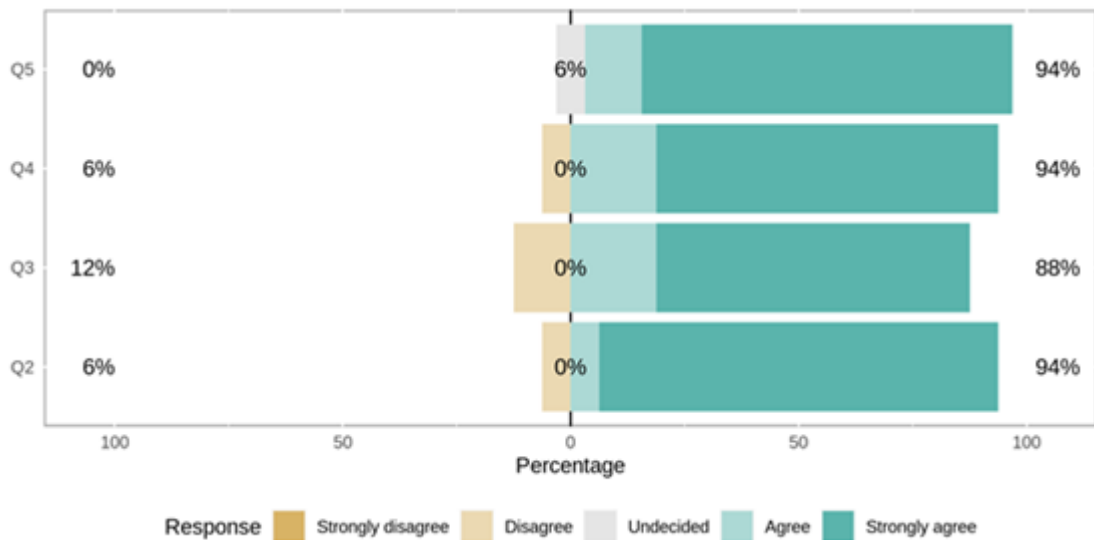
Table 2 – Perceptions of medical students about the "O Brasil Conta Comigo" program

Questions	Disagree	Neutral	Agree
Q2. Do you believe that the program "O Brasil Conta Comigo" was fundamental in your academic formation?	1 (6.2)	0 (0)	15 (93.8)
Q3. Do you believe that your role (as a medical student) in the context of the pandemic was fundamental in providing health care to the population?	2 (12.5)	0 (0)	14 (87.5)
Q4. Do you believe that the activities proposed by the university were fundamental for your better preparation as a future medical professional?	1 (6.2)	0 (0)	15 (93.8)
Q5. After completing the activities proposed by the University, did you feel safer and more confident in caring for a patient with COVID-19?	0 (0)	1 (6.2)	15 (93.8)

Data are presented as counts (percentage).

Source: Prepared by the authors.

Figure 1 – Likert scale to measure the perceptions of medical students about the "O Brasil Conta Comigo" program.



Source: Prepared by the authors.

When asked about the presence of any difficulties while participating in the program, the majority (81.2%) reported not having experienced any difficulties. Among those who reported any difficulty, (1) social distancing, especially from their families, and (2) the context of uncertainty about the disease and anxiety were the highlights.

Discussion

The exposure to clinical practice is an indispensable process to medical students as it allows the opportunity to integrate theory with practice (BARBOSA POTT; POTT JUNIOR, 2019). The university where this study was carried out uses a pedagogical proposal that aims to insert medical students in health care contexts since their first year of medical education, so that the dilemmas and problems encountered in practice are sources of mobilization of academic knowledge and the study process.

This early exposure to clinical practice seems to offer a sense of secure self to students, being expressed by most participants (81.2%), even in a pandemic context. In addition, all study participants reported that their participation in the program was an important element to promote preparation and confidence to deal with health demands while caring for patients with COVID-19.

The satisfaction of almost all students with the acquired knowledge and skills gained could be seen as 93.8% of the participants reported believing that their participation in the program was fundamental for their academic training. Still, they also pointed out that, to them, their involvement was fundamental for the functioning of public services, since they were able to contribute to the continuation of health care services, which is quite overburdened in the current pandemic context. According to Noronha *et al.* (2020), Brazil is in a critical situation in relation to meeting the additional demands caused by COVID-19. In addition to the real and potential demands for medical equipment, there is also a lack of qualified health professionals to meet existing demands. Thus, the participation of medical students, under the tutelage of a qualified teaching staff, plays an extremely important role in the country's public health.

Regarding the difficulties encountered while participating in the program, most of the students reported not having experienced any significant difficulties. Among those who reflected on the experience of some difficulty, the need for social distancing from the family was highlighted, as they needed to reinforce the measures of social isolation due to the exposure, they suffered during the program activities. In addition, another element that appeared as a difficulty was the context of uncertainty about the disease and the anxiety of both the student and the faculty. Thus, despite the difficulties faced when choosing to participate in the program, students assessed their participation as an important opportunity to continue their professional practice in medical education.

Our results indicate that the year was not lost, on the contrary, students were able to experience in practice the dilemmas and difficulties faced within a public health system in a pandemic context. This undoubtedly appears as a differentiated learning context that enabled these students to exercise their social commitment related to their future profession, guided by new scientific evidence under the tutelage of a qualified teaching staff.

Final considerations

This article brings the experience of a Brazilian university in the implementation of the “O Brasil Conta Comigo” program, which aims to voluntarily insert medical students in clinical practice during the COVID-19 pandemic. From the students' perception, they presented a positive evaluation of the results of the program and emphasized that after the programs' activities they felt securer and more confident to assist a patient with COVID-19. Nevertheless, difficulties were also observed during the program.

Based on the perceptions of the participating students, it is possible to think about the role and the importance of the participation of health students in facing pandemic contexts. Medical students play a key role in public health, helping to offer assistance and health care to the country's most vulnerable population. Therefore, based on activities that are planned carefully, it is possible to continue the practical training of medical students and, consequently, the health care services provided to the public health system.

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