Sanitary barriers and its contribution to medical education: an experience report

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ABSTRACT

Introduction: Regarding the COVID-19 pandemic, in a municipality in Minas Gerais, Health Education actions were carried out at health barriers, through communication between health students (mainly medical students) and the community. **Objective:** To report the experience of medical students in voluntary work in health barriers in the context of the COVID-19 pandemic and reflect on its contribution to medical education. **Method:** An experience report that reflects the performance of two medical students in sanitary barriers in the city of Uberaba-MG, during the months of March and April 2020 in four different opportunities. At these occasions, the existence of symptoms in the driver and passengers was assessed and actions for prevention and health promotion were shared. Subsequently, this report was prepared, reflecting on the potential and limitations of the experience for the practice of Health Education and medical training, based on existing literature. **Results:** It was identified that it was possible to build shared learning between different areas of health and the population. Thus, it contributed to the sedimentation of the students' theoretical knowledge through an interprofessional practice according to the National Curriculum Guidelines of 2014 for the medical course. In addition, the concept of "Health Education" was contemplated when the empowerment of citizens has been reached with the action, especially in matters such as hygiene, social isolation, access to health, main symptoms, vaccination and, above all, deconstruction of fake news, making up an extremely successful dynamic. **Conclusion:** The experience contributed to the Health Education of the population and the training of volunteers, mainly medical students, through dialogue and the construction of knowledge with social responsibility.

KEYWORDS: Coronavirus infections, Health education, Medical education, Pandemics.

INTRODUCTION

In December 2019, in Wuhan, China, a new type of betacoronavirus emerged, causing a severe acute respiratory syndrome[1]. Transmitted by respiratory droplets and aerosols[2], in the next two months, coronavirus disease 2019 (COVID-19) spread rapidly throughout the Asian country, and in early 2020, it left its borders to reach Europe and the Americas[3].

On March 11, the World Health Organization (WHO) declared COVID-19 a pandemic[4] (situation of sustained transmission of a disease on several continents simultaneously)[5], then starting a worldwide race to contain the viral spread. As a reaction to the organ's speech, the Ministry of Health of Brazil (MH), through Ordinance No. 356 of March 11, 2020, established national social isolation measures and parameters for testing suspected cases[6].

At the local level, aligned with the recommendations of WHO and MH, the City Hall of Uberaba (CHU), in the state of Minas Gerais (MG), issued Decree No. 5,444, of April 6, 2020, which dealt with the rules for the optional operation of essential services, as well as established

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sanitary barriers in the city. Article 13 of the aforementioned decree, when establishing them, also restricted the arrival of people by roads and determined the period of isolation necessary in the city for their natives and those who came from trips to high risk locations, under penalty of non-compliance[7].

Sanitary barriers are legal mechanisms used by health authorities to control the circulation of people, animals and plants in order to prevent the spread of a disease in places under their tribulation[8]. They are generally applied to international trade in agricultural products, to control food and products exported and consumed domestically[9], but, in the context of the COVID-19 pandemic, sanitary barriers took on another character: they were strategically located in the urban perimeter of cities and they counted on health and traffic agents to monitor those entering the borders[10]. In the case of Uberaba, they also had the help of medical students and other courses in the health area to measure body temperature and clarify doubts of passengers.

Regarding this in view, academics had the opportunity to experience Health Education in practice, which is conceptualized by the MH as an educational process of building knowledge that contributes to increasing the autonomy of the population in their self-care and in order to achieve Health Care according to their needs[11]. Health Education is an important pillar of the actions of public health agencies in this pandemic moment, since the population's understanding of the issue is fundamental for coping with the disease. Therefore, the transmission of the new coronavirus is slowed down and the risks of the national health system collapsing are reduced – the biggest challenge faced by medical authorities at the moment[12].

Health Education is also one of the three axes of the 2014 National Curriculum Guidelines (NCG) for medical school students in Brazil, which discuss the responsibilities of undergraduates in their training, demanding an active posture from the academic and their intellectual autonomy. In addition, they focus on the importance of the student's interaction with multidisciplinary teams in the fields of practice - where the socialization of knowledge with the work group and the community itself is made feasible for applying theoretical content in concrete situations[13].

Thus, this manuscript aims to report and reflect on the experience of medical students, authors of this text, in Health Education practices in sanitary barriers in a city in Minas Gerais during the pandemic of COVID-19.

METHODS

The present work is an experience report and was elaborated in two distinct stages. Firstly, there was the dynamics of the health barriers themselves, experienced by two students of an undergraduate medical course in four different meetings during April and May 2020 in the city of Uberaba-MG. During the occasions, the existence of symptoms in the driver and passengers was assessed and actions for prevention and health promotion were shared. Then, together with the other team members, reflections on the activity in question were built based on the current literature, by searching relevant databases, such as PubMed, SciELO and LILACS, and on official websites of public agencies. Thus, considerations were made about the potentials and limitations of the experience for the practice of Health Education and medical training. According to item VIII of the first article of Resolution No. 510 of April 7, 2016 of the National Health Council, this work does not need submission to the Ethics Committee on Research with Human Beings[14].

EXPERIENCE REPORT

The dynamics of sanitary barriers occurred in Uberaba, a municipality located in the interior of the state of Minas Gerais, in the Triângulo Mineiro region, with 295,998 inhabitants, according to the 2010 Census of the Brazilian Institute of Geography and Statistics (IBGE). The Municipal Health Secretariat (MHS) established the barriers at strategic points in the city, where the flow of vehicles was intense or that acted as a gateway for people coming from other locations. In general, vehicles that contained people from a high-risk group, such as the elderly[15], were

approached, those that summed three people or more, as well as cars identified as coming from other cities.

Two municipal guards were recruited by MHS to ensure local safety, as well as a traffic guard to request the parking of the cars, an MHS employee for inspection and management of the barrier and two volunteers to share information with the drivers and other passengers of the vehicles. In addition, the place was delimited with cones and a tent signaling the words "sanitary barrier", this being equipped with tables, chairs, digital body thermometer, pamphlets, glasses, water, snacks and personal protective equipment (PPE) such as masks, medical aprons, gloves and gel alcohol.

In the specific case of volunteers, these were selected through contact with SMS, which, in turn, also made publicity through television calls and telephone calls to students in the health area. The volunteers had students from the medical course, who make up this report (*Figure I*), and students from different areas of knowledge, contributing to an extremely enriching field of action due to its interdisciplinary character. The training of volunteers to act in the sanitary barriers was carried out by SMS in a moment prior to the action, focusing on the main points to be addressed and allowing a shared and intersectoral construction[16] of knowledge among health professionals, managers) and students.

Arriving at the activity site, the approach was established as follows: at first, a student was responsible for measuring the temperature of all the people inside the vehicle, informing them about how the measurement was carried out and why it was done. After obtaining their consent, the measurement was carried out and its result was communicated to each person. Then, another student was responsible for questioning whether any passenger had had flu symptoms in the past few days, specifying typical symptoms of the flu syndrome, such as fever, mainly associated with cough, sore throat or dyspnoea[15]. At that time, it was also emphasized the fact that every case of influenza syndrome was being considered a suspect of COVID-19. In the event of an affirmative answer, the person was informed of the importance of quarantine for at least fourteen days, being asked to sign an isolation commitment term - a document issued by the city for internal registration and subsequent monitoring of the progression of the occurrence.

After this procedure, the volunteer shared explanations, explaining the circumstances in which the person should either stay at home and observe their symptoms or seek medical attention at the Basic Health Unit (BHU) or the Emergency Care Unit (ECU), according to their symptoms. Pamphlets containing instructions on serving the population and prevention were then handed over, highlighting the importance of isolation to prevent the collapse of the health system. It is important to note that the information was also shared in the negative response to symptoms.

Finally, it was asked whether the person would like to clear up any doubts, point where arose questions regarding, for example, the vaccination against H1N1 flu, which was already being distributed to the elderly. Two negative points, however, deserve to be highlighted: probably because it resembles a police blitz, many strayed from the barrier and others, even in response to the parking request, were too rushed to interact with the health barrier professionals, which made the dialogue to be conducted more objectively.

Although some people already demonstrated knowledge about the disease, the pandemic, protective care and the time to seek health services, the action of students in this health barrier was essential to demystify and reconstruct concepts with the population. It is known that Health Education, according to Paulo Freire, should be a shared construction of knowledge, stimulating with the listener's curiosity, critical capacity and insubmission[17]. Thus, it can be said that the dynamics in question acted in line with what the Brazilian Ministry of Health also advocates, since it promotes empowerment with the active search for potential people at risk and the process of building knowledge , based on a scenario in which information - not always true - is easily disseminated, so that the individual's autonomy is stimulated[18].

This way, at a time when fake news is taking on more and more space[19], it is important that students are encouraged to act horizontally, exercising the role of educators of people and commu-

nities considering health care. When sharing information based on scientific evidence to face a pandemic such as COVID-19, for example, the undergraduate has been promoting Health Education, being a protagonist in his/her own education – a formative aspect of the student linked to professional practice. [18]

In addition, interdisciplinary work with undergraduates from nursing, physiotherapy and psychology courses, among others, helped medical students to expand their knowledge and horizons for the construction of health actions, including the facing of the pandemic. With sanitary barriers, students built knowledge with people in a contextualized way, allowing curiosity to arise and, thus, a new learning to be established from that point.[8] Thus, the barriers elucidate their pedagogical potential. In light of the bioethical principle of autonomy[20], people's empowerment was made possible with these Health Education practices, building with others the necessary knowledge so that the individual can take part in decision-making about their health and their community.

Another point on which the experience with the health barrier allowed us to reflect was health access, which is, more precisely, the exercise of the right to health[21] through the adequate use of health services[22]. In view of the pandemic season, it was necessary to warn about what level of care to turn to when symptoms manifest, which included the dialogue on all dimensions that involve access to health: those of a political, economic, social, technical, symbolic and, above all, with regard to the organizational aspect, which concerns the service's capacity to respond to users' demands[23]. This action contributed to the valorization of Primary Health Care (PHC), which ensures coordination of care in the context to which it is referred, ensuring an early diagnosis of serious cases[15].

Last, but not least, it is necessary to establish a parallel between sanitary barriers and the deconstruction of the so-called fake news. Scientific knowledge has the challenge of dialoguing with popular knowledge, and deconstructing false news, found and shared in abundance on the Internet[24]. The term 'fake news' refers to information without authenticity that is intentionally disseminated in order to deceive[18]. Considering the magnitude of this phenomenon, it is essential to invest more in Health Education actions with the community. In this sense, the action of the sanitary barrier contributed to face untruths, since it promoted the approximation between the population and health students, with the construction of the necessary knowledge for responsible coping with COVID-19.

Also, considering the Internet as a vehicle for information, it is important to reflect on the inequality in access to digital media, considering that health action in the sanitary barrier includes people who do not have access to online news[25]. On the other hand, a weakness of the barrier was to address only people who own a car or the possibility of being a passenger of a motor vehicle. In order to cover different social strata, it would be ideal for students and health professionals to approach people in other realities, going to where they live, with due attention to measures to control the spread of the disease. In addition, this action of sanitary barriers needs to be added to others of Education and Health Care for people, in the fight against this pandemic and other relevant health problems in the context of each community/population.

In this way, it can be said that the learnings related to the action of this report are concentrated both in the impulse given to the student to be the main character of his learning process and in the practice of sharing knowledge in the way of the emancipation of a population. Therefore, such potentialities awakened by the experience led to the emergence of a critical spirit that apprehends reality and contributes to its transformation, through attitudes that may seem simple but bring another design to Health Education. However, the challenges still arise, mainly in the sense of bringing scientific knowledge closer to the population through methods that are, in fact, effective.

Figure I

I – Students Ana Maria Alves de Paula and Ricardo José Razera on the first day of sanitary barriers, in March 2020 in the city of Uberaba-MG.

CONCLUSION

With the experience of health barriers, medical undergraduates realized the importance of containment measures in coping with the COVID-19 pandemic. The presence of different students in this scenario shows the notability of working in an interprofessional team, in favor of Public Health. In addition, this exercise demonstrates the need for dialogical and emancipatory health education practices in medical training and practice.

It is also worth mentioning the need for sanitary barriers to fight against fake news related to COVID-19. The presence of existing social inequality makes access to truthful news difficult. Consequently, students must intervene in relation to the practice of Health Education, explaining it in a didactic and straightforward way for the population.

Thus, it is possible to infer that the performance of academics was paramount for the Health Education of the population by offering basic conditions for them to be autonomous in the process of building their knowledge when many news are not always true. At the same time, they contributed to the intellectual and scientific growth of students themselves by making them active subjects of their own knowledge, in line with what the DCN provides for.

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Acknowledgements
We thank the municipality of Uberaba-MG for its support in sanitary barriers. We are grateful to the Municipal Health Department for the availability to provide physical spaces for the practice of the project. We also thank the volunteers who participated actively in the implementation of this dynamic. We are grateful to the people who made themselves available to listen and talk with the volunteers present at the sanitary barriers.

Conflito de interesses
Os autores declaram não haver conflitos de interesses neste estudo.

Contribuição dos autores
Ana Maria Alves de Paula e Ricardo José Razera foram os partícipes da ação a partir da qual se desenvolveu o presente relato de experiência, contribuindo, também, em todas as etapas de elaboração do texto. Todos os demais autores contribuíram para a redação e revisão do manuscrito.

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Editor:
Prof. Dr Marcelo Riberto

Received in: jul 10, 2020
Approved in: nov 27, 2020
