

## Telemedicine in long-term elderly care facilities as “social accountability” in the context of Covid-19

*Telemedicina nas instituições de longa permanência para idosos como social accountability no contexto da Covid-19*

Carolina Pimentel Bertasso<sup>1</sup> [carol\\_bertasso\\_20@hotmail.com](mailto:carol_bertasso_20@hotmail.com)  
Amanda Cristina Netto Guerra<sup>1</sup> [amandinha\\_guerra@hotmail.com](mailto:amandinha_guerra@hotmail.com)  
Fernanda Pereira<sup>1</sup> [fernanda\\_pera@hotmail.com](mailto:fernanda_pera@hotmail.com)  
Lissa Nakazato<sup>1</sup> [lissanakazato@gmail.com](mailto:lissanakazato@gmail.com)  
Lara Godela Delatore<sup>1</sup> [larinha\\_delatore@hotmail.com](mailto:larinha_delatore@hotmail.com)  
Toufic Anbar Neto<sup>1</sup> [mantenedor@faceres.com.br](mailto:mantenedor@faceres.com.br)  
Cristiane Spadacio<sup>1</sup> [cris.spadacio@gmail.com](mailto:cris.spadacio@gmail.com)

### ABSTRACT

**Introduction:** The World Health Organization defined the compulsory need to redirect all educational, research and public health service activities of medical schools to meet all priority health needs, attributing to them this social responsibility role. Due to the emergency situation in the public health system caused by the COVID-19 pandemic, as a measure of social accountability, remote medical care services and online education were adopted in order to continue following the curricular program and to provide assistance to local city governments.

**Experience report:** Two months before graduation, medical students followed-up on the monitoring of residents and COVID-19 healthcare professionals of forty-three ILPIs (Long-Term Elderly Care Facilities) in the city of Sao Jose do Rio Preto, state of Sao Paulo, Brazil. The medical students made daily telephone calls to all these ILPI units, requesting information, generally from the head nurses and owners, about the main COVID-19 symptoms that were detected in the residents and employees of these facilities. All the collected information was discussed daily with the teacher in charge of mentoring the program, fed into an online database and into a work schedule chart, then relayed to the local Municipal Health Secretariat. A COVID-19 contingency plan was devised by the team, authorized by the Local Health Secretariat and then presented to the ILPIs, aiming to offer them the best guidance throughout the pandemic.

**Discussion:** the COVID-19 pandemic revealed the Health Education System's fragilities, limitations and capacity to adapt to this crisis, thus largely contributing to improving the training of new medical doctors. During the program, medical students faced many challenges, especially regarding the difficulty to contact some ILPIs by telephone, omitted or erroneous information provided by employees in these facilities and delays in reporting suspected cases. In spite of this scenario, daily contact with these facilities allowed the team to identify the ILPIs that were more adequately prepared and the ones that needed auditing and further supervision. Also, this daily contact established a bond between the team and the ILPIs.

**Conclusion:** During the pandemic, it was possible to perform actions according to the logic of social accountability, demonstrating that remote online medical practice is a tool capable of both maintaining interns in contact with the practical aspects of medical care and providing medical assistance to the community and to the local government.

**Keywords:** Telemedicine; Long-Term Elderly Care Facilities; Social Responsibility; Coronavirus Infection; Medical Education.

### RESUMO

**Introdução:** A Organização Mundial da Saúde definiu a obrigatoriedade do direcionamento das atividades de educação, pesquisa e serviços para atender às preocupações prioritárias de saúde como responsabilidade social das escolas médicas. Considerando a emergência em saúde pública em decorrência da Covid-19, decidiu-se utilizar a telemedicina e implementar o ensino remoto para continuar a programação curricular e prestar apoio à gestão municipal a partir do pressuposto da social accountability.

**Relato de experiência:** A dois meses do fim da graduação, discentes de Medicina acompanharam as 43 instituições de longa permanência para idosos (Ilpis) – públicas e privadas – do município de São José do Rio Preto com o intuito de monitorar residentes e funcionários em relação à Covid-19. Por meio de ligações diárias para as Ilpis, eles solicitaram ao representante de cada unidade, geralmente enfermeiro responsável, ou ao proprietário do estabelecimento informações sobre os principais sintomas da Covid-19 detectados nos moradores e funcionários das instituições. Cotidianamente, essas informações eram registradas numa plataforma on-line, na planilha de organização do trabalho, e depois relatadas para a Secretaria Municipal de Saúde (SMS) e discutidas com o professor responsável pela mentoria. Um plano de contingência para a Covid-19 foi elaborado pela equipe, autorizado pela SMS e repassado às Ilpis, para orientá-las durante a pandemia.

**Discussão:** A Covid-19 apontou as fragilidades, as limitações e a capacidade de adaptação do sistema educacional de saúde, o que possibilitou o aprimoramento da formação dos novos médicos. Durante o monitoramento, os discentes encontraram diversos desafios: dificuldade no contato telefônico com algumas Ilpis, informações omitidas ou fornecidas de forma equivocada pelos funcionários e atrasos na comunicação de casos suspeitos. Contudo, o contato diário permitiu reconhecer as Ilpis que se apresentavam mais adequadas e as que necessitavam de investigação e orientação, criando vínculo com as Ilpis.

**Conclusão:** Durante a pandemia, foi possível realizar ações na lógica da social accountability, evidenciando que o teleatendimento é uma ferramenta que, ao mesmo tempo que mantém os internos nos cenários de práticas, presta assistência à comunidade e à gestão municipal durante a pandemia.

**Palavras-chave:** Telemedicina; Instituição de Longa Permanência para Idosos; Responsabilidade Social; Infecção por Coronavírus; Educação Médica.

<sup>1</sup> Faculdade Ceres, São José do Rio Preto, São Paulo, Brazil.

## INTRODUCTION

Since the Flexner Report, many changes have occurred in medical education and in the structuring of medical schools worldwide<sup>1,2</sup>. The 21<sup>st</sup> century demands a different set of challenges for medical education institutions and among them, advancing the social commitment inherent to the health field, with the improvement of quality, equity, relevance and effectiveness regarding the provision of health care; reducing the gap with social priorities; redefining the roles of health professionals and providing evidence of the impact on people's health status<sup>1</sup>.

In this context, representatives of accreditation and medical education organizations met in 2010 in the city of East London, South Africa, to finalize the Global Consensus on Social Accountability for Medical Schools (GCSA).

The Delphi method was used to construct this document, widely used in research in various areas of knowledge, especially in the area of Education. It can be defined as a method to structure a collective communication process so that it is effective, by allowing a group of individuals to deal with a complex problem<sup>3</sup>.

Therefore, based on three basic questions, a consensus was reached that should guide the work provided by medical schools, aiming to have an impact on the health system performance and people's health status<sup>1</sup>. With the questions: How should a medical school improve its capacity to respond to future health challenges in society? How could this capacity be enhanced, including the use of accreditation systems for self-assessment and peer review? and How should progress towards this end be assessed??<sup>1</sup>, ten thematic areas have emerged, which are the basis of social accountability. (Frame 1).

**Frame 1.** List of 10 thematic areas for social accountability development

Area 1: Anticipating Society's health needs
Area 2: Partnering with the health system and other stakeholders
Area 3: Adapting to the evolving roles of doctors and other health professionals
Area 4: Fostering outcome-based education
Area 5: Creating responsive and responsible governance of the medical school
Area 6: Refining the scope of standards for education, research and service delivery
Area 7: Supporting continuous quality improvement in education, research and service delivery
Area 8: Establishing mandated mechanisms for accreditation
Area 9: global principles with context specificity
Area 10: Defining the role of Society

Source: Global Consensus on Social Accountability for Medical Schools<sup>1</sup>.

The list of ten areas reflects a logical sequence to act efficiently: understanding the social context, identifying health challenges and needs, creating relationships between professionals and between professionals and users.

Anticipating Society's health needs aims to make medical schools able to recognize the numerous social determinants of health, in all its spheres. From the most individual sphere, through social and community networks, living and working conditions to the broader political, demographic, epidemiological, cultural, economic and environmental aspects. Therefore, medical schools can direct their educational, research and service delivery programs in agreement with the Social Determinants of Health (SDOH) model. In the perspective and the commitment of social accountability, the medical school must be able to anticipate the necessary changes towards an efficient and equitable health system, with a competent workforce<sup>1</sup>.

The World Health Organization (WHO) defined the social responsibility of medical schools as

*[...] the obligation to direct their education, research and service activities to meet the priority health concerns of the community, region and nation. Priority health concerns must be identified jointly by governments, health care organizations, health professionals and the public<sup>4</sup>.*

Considering the current pandemic scenario caused by COVID-19, it was necessary to implement social isolation to decrease the transmission of the Coronavirus and prevent the health system from collapsing due to the lack of hospital beds, supplies for the treatment of patients and personal protective equipment for health professionals.

CFM Official Letter N. 1756/2020 and Ordinance N. 476, of March 20, 2020, allowed for the improvement of the medical services provided and, exceptionally and while actions to combat COVID-19 last, the possibility and ethics of using telemedicine for tele-guidance, telemonitoring and tele-consultation, based on the need to protect both the health of doctors and patients<sup>5</sup>.

Telemedicine can be understood as the area that uses telecommunication technology to create process solutions with efficient services. This area can generate several services, ranging from prevention and personalized health promotion to social reintegration. The integration between technological solutions and health services can improve educational activities, the planning of health logistics, regulation of telecare and the implementation of methods to provide multi-institutional activities<sup>6</sup>.

It is worth mentioning that in-person doctor-patient contact is extremely important and should not disappear. However, in some cases, such as that of isolated populations

or in specific contexts, such as the COVID-19 pandemic, telemedicine has shown to be a solution, by eliminating the implications arising from the personal distancing factor, especially in Brazil, a large country with an uneven distribution of health services.

In the educational context, due to the suspension of face-to-face activities, the implementation of Distance Education (DE) was imperative to continue the curricular schedule. This situation had a positive impact on student training, avoiding the loss of the academic semester, teaching undergraduate students to adapt in hostile environments and, quite interestingly, proposing, in the medical school scenario, the idea of social accountability with medical practice through telemedicine – keeping medical interns inside the practice scenario and providing assistance to the community during the pandemic.

In this scenario, a private Higher Education Institution (HEI), in partnership with the Municipal Health Secretariat (MHS) of São José do Rio Preto, state of São Paulo, Brazil, the city where the school is located, started the project “Monitoring and Surveillance of COVID-19-Symptomatic Residents in Long-Term Elderly Care Facilities (ILPIs) and Nursing Homes in São José do Rio Preto”, finding in telemedicine a viable option for interns in the last semester of medical school to carry out their work while respecting social isolation, and, above all, efficiently, monitoring a risky and vulnerable population, represented by the elderly. Thus, through this partnership, medical students were able to learn more about COVID-19, the appropriate conducts in suspected or confirmed cases, in addition to establishing reliability between the ILPIs and the Municipal Health Secretariat, managing to quickly solve the doubts that arose.

Considering the present context, together with the importance of social accountability as an ethical-pedagogical posture at present, this article aims to describe how a remote monitoring program for ILPIs impacted the training of future medical professionals.

## EXPERIENCE REPORT

In March 2020, COVID-19 made Brazil modify the progress of several sectors, including the health area, encompassing medical internship. With approximately two months yet to go before graduation, these students were able to add even more to their training as doctors. This reality became very evident as, in addition to the habit of face-to-face training, the students had to exercise a modern and necessary medical practice, with daily monitoring of ILPIs, through telemonitoring, which allowed them to establish a relationship of trust with them, thus becoming a reliable means of information and giving the MHS more control over the health status of the most vulnerable population. This action took place quickly and effectively in

cases of doubts or complications at the monitored locations, promoting information and, above all, solutions.

The municipality has 43 public and private ILPIs, which were monitored by students attending the 12<sup>th</sup> internship period for COVID-19. For the project operationalization, students were divided into two working groups: the surveillance and monitoring group and organization of the collected information and relaying them to the MHS. Since the beginning of the monitoring program in April 2020, 40 medical internship students have participated in this action, on a rotating basis. In the 43 monitored ILPIs, approximately 450 residents and 400 ILPI employees were followed up until October 2020. Of this total, there were 22 deaths caused by Covid-19, in a group of 81 deaths from April to October 2020 in the municipality's ILPIs.

At the first contact with the ILPIs, the surveillance and monitoring group introduced the project, identified the person responsible for informing the data on a daily basis – preferably someone from the health area – and performed a registration containing basic information. In addition, daily telephone calls were made asking about the main symptoms eventually detected by the ILPI team related to COVID-19: fever, cough, dyspnea, sneezing, nasal obstruction, coryza, anosmia, chest pain, change in behavior or mental state and overall health condition decline. This collected information was recorded on an online platform - <http://asilo.pinencode.com.br/>. and also in an Excel spreadsheet to organize the daily work. After this stage, the work process organization was performed, in which a student was responsible for preparing reports and communicating with the MHS daily. The flows of care and conducts were the responsibility of the ILPIs and the MHS.

Daily, the students participating in the project held meetings with the teacher in charge, once a day, using the Zoom Platform, lasting approximately 1 hour, to discuss the relevant cases, promoting the students' exchange of experiences about each ILPI. When necessary, an MHS employee also attended the meeting to answer questions from the students and ILPI's staff. After the meetings, the students gave their feedback, when necessary, to the ILPI in charge.

Initially, some ILPI managers were aloof and suspicious of the appropriateness of the program. Subsequently, through daily contacts, an informative and trusting connection was created between students and institutions, solving doubts about diagnostic tests, how to notify cases and even the signs and symptoms of the viral disease. Therefore, the clarifications provided by the students under the supervision of the teachers became an active means of study for the students, making it possible to consolidate the theoretical and practical concepts related to COVID-19.

The interns also developed by themselves, under the supervision of HEI teachers, a set of materials made available to

the ILPI based on the demands that arose during the monitoring routine. The topics that were the basis of the materials were: differences in the types of tests for COVID-19; flowchart for the referral of COVID-19 symptomatic suspected elderly individuals to the municipal health care network; biosafety strategies to receive the elderly individuals back at the ILPIs who eventually needed to leave for medical care; adequate PPE use by ILPI employees and a contingency plan – relayed to the MHS and to the ILPIs, containing the institution's registration data, structural information, general information about the residents, protection and prevention measures, and protection and suspicion protocol.

Some challenges were faced by the students during the monitoring: difficulty in the telephone contact with some ILPIs, omitted or mistakenly provided information by employees and delays in reporting suspected cases.

As positive aspects, beyond this unfavorable scenario, the daily contact made it possible for students to recognize the ILPIs that were adequate and the ones that required investigation and supervision, creating a link with the ILPIs. It was also possible to aggregate a significant set of information about the behavior of the disease in ILPIs.

The perception of medical interns at the end of the program was positive, as they were able to experience medical practice in a more modern and safer way, while providing management support for the control of coronavirus in ILPIs during the pandemic. With the topics addressed with the ILPIs, using informative materials, it was possible to guide and clarify, mainly to the managers and employees of nursing homes, necessary measures to prevent the contagion and spread of COVID-19 within the units. In addition to providing medical interns with a theoretical-conceptual development on subjects related to Covid-19, based on the study of scientific evidence. It should be noted that all the advice provided during the telemonitoring program was based on scientific evidence, which was adapted to the reality of the health professionals at the ILPIs.

## CONCLUSIONS

COVID-19 has emerged to highlight the weaknesses, limitations and adaptive capacity of the educational health system in hostile settings. Therefore, the idea of social accountability in education became essential to train new doctors in the context of the pandemic. Because the infectivity rate of COVID-19 is high and the elderly are vulnerable to an unfavorable outcome, prevention advice, early identification of a risk situation and the need for social distancing have made telemonitoring an effective solution.

The program also made it possible to improve the training of new doctors. The medical school is committed to working in

close partnership with other actors in the health field, such as: managers, organizations providing health services, professional associations, other professional categories and civil society. Health partners provide mutual support in carrying out their missions to meet society's priority health needs and challenges<sup>1</sup>.

Medical schools are constantly adapting to doctors' evolving roles, so they recognize that, regardless of their future specialties, they need to be explicitly active in the population and in their coordination and promotion of individual health, as well as in the prevention of risks and diseases and rehabilitation for patients and the community.

The entire spectrum of educational interventions, including content, curriculum structure, resource allocation, teaching-learning methods, student assessment, teacher development and assessment systems, is shaped to better meet individual and social needs.

In order to create a responsive and responsible governance of the medical school, the HEI involves its entire academic body to face the challenges and health needs in society. This involvement is recognized and critically assessed through regular and systematic verification using certified tools.

The principles of social responsibility are universal: they must be adopted and applied worldwide because they increase the medical school's capacity to better use its potential to identify and face society's health challenges and needs, while maintaining the ideals of quality, equity, relevance, innovation and adequate use of available resources. Even though the principles, definitions and classifications of socially responsible schools can be universal, their adaptation to the local context is crucial.

Hence, the monitoring experience provided the students with the dimension of the impact of COVID-19 on social, educational and health dynamics. Moreover, it was clear that the most effective way to reduce the spread of the disease was to implement preventive measures based on social isolation, strict hygiene and daily monitoring.

## AUTHORS' CONTRIBUTION

Carolina Pimentel Bertasso: writing, reviewing and editing the manuscript and project management. Amanda Cristina Netto Guerra: writing, reviewing and editing the manuscript and methodology. Fernanda Pereira: writing, reviewing and editing the manuscript. Lissa Nakazato: writing, reviewing and editing the manuscript. Lara Godela Delatore: visualization. Toufic Anbar Neto: supervision and validation. Cristiane Spadacio: writing, original draft and supervision.

## CONFLICTS OF INTEREST

The authors declare no conflicts of interest.

## SOURCES OF FUNDING

The authors declare that there was no funding for this study.

## REFERENCES

1. University of British Columbia, Walter Sisulu University. Consenso Global de Responsabilidade Social das Escolas Médicas. 2012 [access in 22 jun 2020]. Available from: [http://healthsocialaccountability.sites.olt.ubc.ca/files/2012/02/GCSA-Global-Consensus-document\\_portuguese.pdf](http://healthsocialaccountability.sites.olt.ubc.ca/files/2012/02/GCSA-Global-Consensus-document_portuguese.pdf).
2. de Almeida Filho N. Reconhecer Flexner: inquérito sobre produção de mitos na educação médica no Brasil contemporâneo. *Cad Saude Publica*. 2010;26(12):2234-49. doi:10.1590/S0102-311X2010001200003.
3. Marques JBV, de Freitas D. Método Delphi: caracterização e potencialidades na pesquisa em educação. *Pro-Posições*. 2018;29(2):389-415. doi:10.1590/1980-6248-2015-0140.
4. Oliveira FP, Santos LMP, Shimizu HE. Responsabilidade social das escolas médicas e representações sociais dos estudantes de Medicina no contexto do Programa Mais Médicos. *Rev Bras Educ Med*. 2019;43(1 supl 1):462-72. doi:10.1590/1981-5271v43suplemento1-20190074.
5. Brasil. Portaria nº 467, de 20 março de 20. Dispõe, em caráter excepcional e temporário, sobre as ações de Telemedicina, com o objetivo de regulamentar e operacionalizar as medidas de enfrentamento da emergência de saúde pública de importância internacional previstas no art. 3º da Lei nº 13.979, de 6 de fevereiro de 2020, decorrente da epidemia de COVID-19 [access in 22 jun 2020]. Available from: [https://bvsms.saude.gov.br/bvs/saudelegis/gm/2020/prt0467\\_23\\_03\\_2020\\_extra.html](https://bvsms.saude.gov.br/bvs/saudelegis/gm/2020/prt0467_23_03_2020_extra.html).
6. Wen CL. Telemedicina e telessaúde: oportunidade de novos serviços e da melhoria da logística em saúde. *Revista Panorama Hospitalar*. 2015;24-6 [access in 22 jun 2020]. Available from: [https://telemedicina.fm.usp.br/portal/wp-content/uploads/2015/03/03132015\\_Revista\\_Panorama\\_Hospitalar\\_Fev\\_2015\\_pag24a26.pdf](https://telemedicina.fm.usp.br/portal/wp-content/uploads/2015/03/03132015_Revista_Panorama_Hospitalar_Fev_2015_pag24a26.pdf).
7. Urtiga KS, Louzada LAC, Costa CLB. Telemedicina: uma visão geral do estado da arte. *Unifesp*; 2004 [access in 22 jun 2020]. Available from: <http://telemedicina.unifesp.br/pub/sbis/cbis2004/trabalhos/arquivos/652.pdf>.



This is an Open Access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.