



Experience Report



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Teleconsultation and telemonitoring in physiotherapy during the COVID-19 pandemic: experience report in a teaching assistant clinic

Teleconsulta e telemonitoramento em fisioterapia durante a pandemia de COVID-19: relato de experiência em um ambulatório docente assistencial

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ABSTRACT | BACKGROUND: Due to the pandemic context, it was necessary to reinvent our professional practice and introduce the modalities of teleconsultation, teleconsulting, and telemonitoring to physiotherapeutic care. Communication established by messaging application, with the sending of videos or exercise booklets, and synchronous activities with exercise guidelines in the home environment, ensuring that the community is protected from the spread of the virus, facilitating the physical and social distance recommended at the time. **OBJECTIVE:** To report the experience of teleconsultation and telemonitoring from the point of view of physiotherapists who are teaching supervised internships in a teaching assistance outpatient clinic. **METHODS:** This is an interdisciplinary teaching-care experience report, which took place from August to December 2020, established in the curricular component Outpatient Supervised Internship and Management Internship, of the Physiotherapy course of the Bahiana School of Medicine and Public Health, in Salvador, Bahia. The Teleconsulting and Telemonitoring were carried out using the cell phone number registered in the @WhatsApp LLC application, with online assistance and a duration of 50 minutes. **EXPERIENCE REPORT:** The faculty was encouraged to motivate the class to face new challenges, such as dispensing with the application of physical therapy technique with their hands in favor of promoting health education and prioritizing the development of self-care in the patient based on guidelines for distance. Despite the frustrations generated by the changes in the modality of care, students began to see the opening of internal space for new experiences as positive stimuli faced during the internship. Thus, it was observed that even with the challenges, it was possible to establish and understand that some practices are here to stay in the cases where they are best applied.

KEYWORDS: Teleconsulting. Telemonitoring. Physical therapy. Health Education.

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RESUMO | INTRODUÇÃO: Devido ao contexto pandêmico foi necessário reinventar nossa prática profissional e inserir as modalidades de teleconsulta, teleconsultoria e telemonitoramento ao atendimento fisioterapêutico. Comunicação estabelecida por aplicativo de mensagem, com o envio de vídeos ou cartilhas de exercícios, e atividades síncronas com as orientações de exercícios no ambiente domiciliar, assegurando proteger a comunidade da propagação do vírus, facilitando o distanciamento físico e social preconizado no momento. **OBJETIVO:** Relatar a experiência da teleconsulta e telemonitoramento do ponto de vista de fisioterapeutas docentes de estágio supervisionado em um ambulatório docente assistencial. **METODOLOGIA:** Trata-se de um relato de experiência docente-assistencial, interdisciplinar, a qual ocorreu no período de agosto a dezembro de 2020, instituídas no componente curricular Estágio Supervisionado Ambulatorial e Estágio em Gestão, do curso de Fisioterapia da Escola Bahiana de Medicina e Saúde Pública (EBMSP), em Salvador, Bahia. Realizou-se a teleconsulta e telemonitoramento através do número de telefone celular cadastrado no aplicativo @WhatsApp LLC, com atendimento *online* e duração de 50 minutos. **RELATO DE EXPERIÊNCIA:** O corpo docente foi instigado a motivar a turma a enfrentar novos desafios, como: dispensar a aplicação da técnica fisioterapêutica com suas mãos em prol da promoção da educação em saúde e priorizar o desenvolvimento do autocuidado no paciente a partir das orientações à distância. Apesar das frustrações geradas pelas mudanças da modalidade de atendimento, os discentes passaram a vislumbrar a abertura de espaço interno para novas experiências como estímulos positivos enfrentado durante o estágio. Dessa forma, observou-se que mesmo com os desafios foi possível estabelecer e entender que algumas práticas vieram para ficar nos casos em que melhor se aplicam.

PALAVRAS-CHAVE: Teleconsulta. Telemonitoramento. Fisioterapia. Educação em Saúde.

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Introduction

COVID-19 is a complex multisystem disease caused by the SARS-CoV-2 coronavirus, which reached pandemic status in 2020.^{1,2} In Brazil, on February 6, 2020, the Ministry of Health approved Law n° 13,979 16 (Quarantine Law), which consists of measures to protect the community from the spread of the virus, such as frequent hand hygiene, physical distancing and the use of personal protective equipment.³

Physical and social distancing proposes to minimize personal interaction in large groups by suspending the operation of educational institutions, shopping malls, restaurants, and businesses in general.⁴ This measure became a collective effort to reduce the transmission of the virus. On the other hand, elderly people and/or those with comorbidities, who previously attended school clinics for prolonged treatments, began to receive face-to-face health care in a smaller proportion since data epidemiological studies point to more severe effects of COVID-19 in the elderly population and individuals with previous conditions such as immunosuppression, arterial hypertension, diabetes, cancer, lung and heart diseases.⁵

This pandemic scenario had a direct impact on the didactic and pedagogical activities of higher education institutions. Resolution NCE/PC no. 02/2020 of the National Council of Education (Brazil) establishes exceptional educational norms to be adopted by education systems during the state of calamity.⁶ Undergraduate courses in health, in particular physiotherapy courses, involve clinical-therapeutic activities that must occur in increasing complexity, approaching theoretical contents, observation, and assisted practice, under the responsibility of a physiotherapist teacher.⁷ Understanding the importance of clinical services and the particularities of each user regarding the continuity of physiotherapeutic treatments during this period of social isolation, new care models that can reduce free circulation, crowding, and physical contact between health professionals and patients have proven to be useful.³

Faced with the need for an emergency care plan, the Conselho Federal de Fisioterapia e Terapia Ocupacional - COFFITO (Federal Council of Physiotherapy and Occupational Therapy) allowed, through Resolution no. 516, that Physiotherapists and Occupational Therapists perform non-face-to-face care in the teleconsulting, and telemonitoring modalities.

Teleconsulting consists of a registered online clinical consultation, teleconsulting works to clarify doubts about clinical procedures, health actions, and work-related issues, and telemonitoring refers to the online follow-up of patients already seen in person.⁸

Although remote activities via messaging apps, such as sending videos or exercise booklets, and synchronous activities with exercise guidance in the home environment cannot fully replace face-to-face consultations^{8,9}, the current moment has demonstrated the need to reinvent our professional practice; however, this implies modifying paradigms created during our academic-professional training. Therefore, the objective of this study is to report the experience of teleconsultation and telemonitoring from the point of view of physiotherapists teaching supervised training in a teaching care outpatient clinic, calling on the academic and care community to reflect on the possibility of new experiences, based on scientific evidence, benefits and safety for users.

Methods

This is a teaching-assistance experience report, with characteristics of practical interdisciplinary research that considers everyday life and all its multiplicity of meanings¹⁰, after an experience in the remote assistance modality carried out with users of a physiotherapy school clinic during the period from August to December 2020, due to social distancing due to the COVID-19 pandemic. These service modalities were instituted in the curricular component Outpatient Supervised Internship and Management Internship of the Physiotherapy course at the Bahiana School of Medicine and Public Health (BSMPH) in Salvador, Bahia, Brazil. The proposal to carry out teleconsultation and telemonitoring was created based on the interruption of face-to-face consultations at the teaching clinic in the following areas: neurofunctional, orthopedic, cardiorespiratory, community health, pelvic, and vascular physiotherapy.

Prior to the implementation of the new modality, the teachers began the semester using a month to update themselves with the regulations released by the Class Council, with the recommendations of the Associations of the respective specialties and the digital tools for telehealth. The proposed internship involved all the semesters that would start the face-

to-face internship in a joint experience focusing on teleconsultation, teleconsulting and telemonitoring, lasting twelve meetings per group. Then, training with the students began, as recommended in supervised practice.

The activities carried out were as follows: presentation of the supervisors, detailing the distribution of the workload and proposal of activities, presentation of the intern's evaluation criteria, clarification of doubts, knowledge of digital tools for patient treatment and evaluation, discussion of ethical aspects in telehealth, elaboration of clinical cases and realistic simulation, selection of tests and formulation of questionnaires for patient evaluation, and discussion of scientific articles on telemonitoring.

The telemonitoring internship aimed to keep in touch with users of the face-to-face services offered by the internship, and the teleconsultation aimed to reach people unable to receive a face-to-face physiotherapeutic assessment. All users registered in both service modalities provided a mobile phone number registered in the @WhatsApp LLC application, confirmed regular participation on the days established for online services lasting 50 minutes. Those who had some difficulty in technological handling, as well as insecurity in performing the exercises and guided postures, were required to have a companion. The sessions took place weekly from October to December 2020, a period foreseen for carrying out the didactic activities offered remotely in the internship discipline.

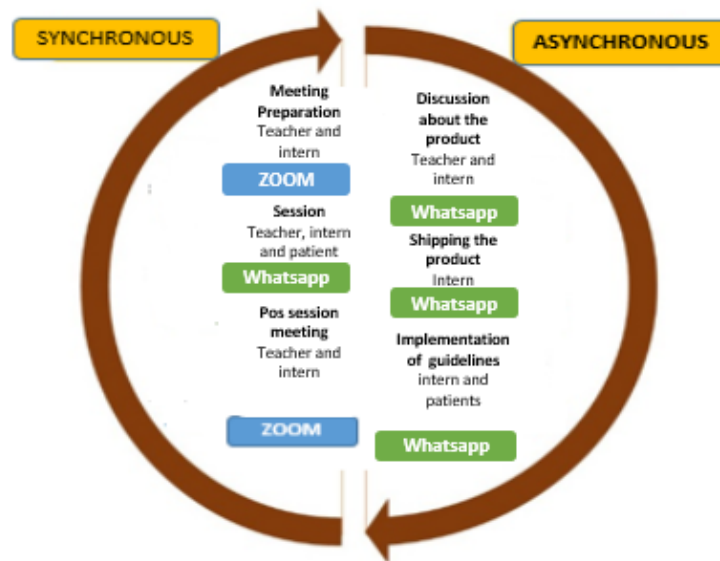
The interns experienced teleconsultation and telemonitoring in the form of rotations, which lasted

four to five meetings per area twice a week; each patient was seen once a week. Internship actions were divided into synchronous and asynchronous: synchronous activities consisted of consultations with the patient and meetings between the internship supervisor and the students; in the asynchronous modality, the students elaborated products (videos, booklets, guides, manuals, texts, etc.), or shared with the patients materials produced by third parties, referenced. The meetings between the students present in the rotation and the supervisor took place on the @Zoom Video Communications Inc. All material sent to the user was analyzed and discussed with the internship supervisor.

When starting the consultations, the students identified themselves and, in a group with other students in the area, presented the assistance proposal to be discussed (Preparation Meeting). At the end of the consultations, the group met again to discuss the experience of the day and plan the activities for the week (Post Assistance Meeting). The supervisor of each area participated in all consultations. (Figure 1)

In the asynchronous moment, the students and the supervisor discussed the product to be sent to the patient according to the demands observed in the previous meeting via @Zoom Video Communications Inc (Discussion About the Product). Then, the student sent the product to the user via @Whatsapp LLC (Product Shipping) and made himself available to solve possible doubts and offer guidance for home activities, and to prepare for the next meeting (Execution of Guidelines). (Figure 1)

Figure 1. Flow of synchronous and asynchronous activities carried out in the teleconsultation and teleservice internship



Source: The authors (2020).

Concomitant to internships with supervised practices, this same group of students also participates in an internship in Management. This component, in turn, was responsible for reviewing the Rules of Conduct and Service Protocols for each internship area in the teleconsultation and telemonitoring modality.

With the change in the care modality, the teaching team felt encouraged to investigate new possibilities, culminating in an interdisciplinary attitude between the Management and Outpatient Internships, with a questionnaire being prepared to find out the level of satisfaction of the user and the intern at the end of the academic year that would allow us some reflection in order to improve the process in the following semester. For this, we used a questionnaire from @Google Forms by Google Workspace with basic questions to check satisfaction.

Experience report

The experience lived in the teleconsultation, telemonitoring, and teleconsulting program carried out by physiotherapists and physiotherapy students provided an opportunity to reflect on this assistance tool, its possibilities, and challenges. At first, we observed a certain dissatisfaction among students and users in relation to the virtual modality of assistance, which permeated from the concern with the substitution of practices and with the emergency need of immersion in a new modality of assistance, until then not experienced in the matrix course curriculum. These issues were openly explored in systematic clinical discussion meetings.

The expectation about not carrying out the face-to-face internship, of all actors in this scenario, instigated the faculty to motivate the class to face new challenges, such as dispensing with the application of the physiotherapeutic technique with their hands in favor of promoting health education and prioritizing the development of self-care in the patient based on distance guidance. The students began to envision the opening of internal space for new experiences as a positive challenge faced during the internship.

We understand that the listening space itself already promotes transformation but also allows us to intervene by bringing some solution. We were also learning together with the interns, with our peers, with our supervision and coordination, which played a very important role in opening up and supporting the entire process — since

shortly after the release of COFFITO resolution no. 516, the course coordination envisioned the possibility of changing the curricular matrix to insert a new component that was aligned with professional and institutional ethic, and contemplated the skills and competencies necessary for the physiotherapy student training. This deconstruction movement of clinical practice also affected the management of the School Clinic, because, at this time, the absence of patients, interns, and professors gave way to a task force for screening eligible users to participate in telemonitoring, in addition to investment in technological devices such as cell phones and computers, for making video calls and meetings for remote clinical discussions.

Although the challenges became evident after the start of activities, we observed that the practice of physiotherapy with digital support has rapidly grown in recent years, and there has never been a better time to provide a quick solution with adequate and accessible technology to the consumer than at the present time. Innovations in digital and communication technologies have created a range of options to support patients, and interventions aimed at increasing activity and physical fitness now play an important role in physical therapy management for various clinical groups, recognizing the critical impact of these factors on long-term health outcomes.^{11,12}

The personal indication of a service program is important for sedimentation and its continuity. Physical therapy in this modality produces similar benefits to an outpatient rehabilitation program.¹³ As with all physical therapy interventions, effective telemonitoring requires professionals to understand the essential components of their treatments and ensure that these are included in the care plan. For example, some treatments may require real-time interactions between physiotherapist and patient, in which videoconferencing will be a better choice than a web portal with automated messaging.^{14,15} This reinforces our choice for the synchronous and asynchronous format for carrying out the assistance.

According to the teachers' perception, the interns' initial dissatisfaction with the telemonitoring modality could be closely linked to frustration with the imposition and change of plans due to the pandemic, which even led to a change in the graduation date of the interns who attended the last semester. However, as the meetings progressed, the interns understood

that the modality of physiotherapeutic assistance implemented is based on health education and allows individuals to become active, transform the realities in which they are inserted, and become protagonists of their own health.¹⁶ From a methodological and training point of view, it is worth mentioning that the interns experienced face-to-face consultations in the following academic semester, in no way disfavoring the practical workload recommended by the institution for the training of a Physiotherapy professional.

Despite the option for an experience report that would allow us to disclose the results of our experience, without identifying information that would reveal the research subjects. We consider as a limitation of this study the questionnaires prepared by the authors, as they contained aggregated information, with the initial objective of theoretically deepening the situations that emerged spontaneously and contingently in our professional practice, with no statistical techniques being used to measure the quality of the process. We suggest that future research on the topic addressed in the educational context, with technologies arising and fostered in the pandemic period, be developed in a prospective format and with methodological rigor to assess its effectiveness.

Final reflection

Although we recognize that face-to-face physiotherapeutic care should not be replaced, especially in the acute phases of treatments, with practices that will persist in the post-pandemic, we observe how essential it is to stimulate self-care and patient autonomy in the processes of treating more chronic pathologies. Faced with the challenges posed by the pandemic, we believe that a joint effort has begun to recreate the teaching-assistance reality in the field of physiotherapy in a resilient and most appropriate way possible under the circumstances. We were all challenged, the professors to support the teaching, the interns to deal with the frustration of changing to the telepresence format, in order to continue their training and learning, and the patients to meet their need for treatment. In this second year of the pandemic, reflecting on the intensity of the initial challenge and on the organization that was possible to establish, we even understand that some practices are here to stay in cases where they are best applied.

Authors' contributions

Sousa MC was responsible for the work, participated in all the internship activities carried out at the outpatient clinic, and idealized the manuscript. Mendes SMD participated in all the planning and monitored the internship activities at the outpatient clinic. Mamede CAGS participated in the internship activities at the outpatient clinic. Ribeiro RTSK was the supervisor of the outpatient internship and monitored the execution activities in the outpatient clinic. All authors participated in the scientific construction of the manuscript, considering the reading and review stages.

Conflicts of interest

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

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