

Civil society and university: university extension as an integrator of teaching, research and health care in pandemic times

Sociedade civil e universidade: a extensão universitária como integradora do ensino, pesquisa e assistência à saúde em tempos de pandemia

Sociedad civil y universidad: la extensión universitaria como integradora de la docencia, la investigación y la atención de la salud en tiempos de pandemia

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Abstract

The Covid-19 pandemic generated numerous challenges, among them university training due to the suspension of face-to-face activities, due to social isolation. There were adaptations to the new reality and the virtual environment became an ally for students and educators, however, with the persistence of the pandemic moment and the need for qualified labor, the students graduating from the Physiotherapy course felt the need to enter the professional life. Thus, this article explains the process of implementing an extension study in times of pandemic and social distancing, its interactions with teaching and research, as well as the difficulties encountered and the preliminary results. This study seeks to track individuals diagnosed with Covid-19 and who required hospitalization, assess their functionality, monitor and/or refer them to specialized services. The main difficulties encountered were regarding contact with patients and the availability and training of students to carry out the assessments, either by phone call or in person. Vaccination of students made it possible to return to face-to-face activities and thus access to the covid sector, allowing the identification of the main limitations of patients and accompanying them or referring them to specialized services. Due to satisfaction with the results, the project was expanded, opening up research and evaluation in the Covid Intensive Care Unit. Thus, the project made possible the articulation of the teaching, research and extension tripod, helped in the academic training of those who completed the Physiotherapy course and involved society, supplying their needs in the current pandemic scenario, assisting in the rehabilitation after infection by SARS-CoV-2.

Keywords: Covid-19; Education; University extension.

Resumo

A pandemia da Covid-19 gerou inúmeros desafios, dentre eles a formação universitária pela suspensão das atividades presenciais, devido ao isolamento social. Houveram adaptações à nova realidade e o ambiente virtual se tornou um aliado para alunos e educadores, entretanto, com a persistência do momento pandêmico e a necessidade de mão de obra qualificada, os alunos concluintes do curso de Fisioterapia sentiam a necessidade de ingressar na vida profissional. Com isso, o presente artigo explana o processo de implantação de um estudo extensionista em tempos de pandemia e distanciamento social, suas interações com ensino e pesquisa, bem como as dificuldades encontradas e os resultados preliminares. Esse estudo procura rastrear indivíduos com diagnóstico de Covid-19 e que precisaram de

internação hospitalar, avaliar sua funcionalidade, acompanhar e/ou encaminhar a serviços especializados. As principais dificuldades encontradas foram quanto ao contato com os pacientes e a disponibilidade e capacitação dos discentes para realizar as avaliações, fossem por ligação telefônica ou presencialmente. A vacinação dos discentes possibilitou o retorno às atividades presenciais e assim o acesso ao setor covid, permitindo identificar as principais limitações dos pacientes e acompanhá-los ou encaminhá-los aos serviços especializados. Devido a satisfação com os resultados, expandiu-se o projeto, dando abertura a pesquisa e a avaliação na Unidade de Terapia Intensiva Covid. Assim, o projeto possibilitou a articulação do tripé ensino, pesquisa e extensão, auxiliou na formação acadêmica dos concluintes do curso de Fisioterapia e envolveu a sociedade, suprindo suas necessidades no atual cenário pandêmico, auxiliando na reabilitação pós infecção por SARS-CoV-2.

Palavras-chave: Covid-19; Educação; Extensão universitária.

Resumen

La pandemia del Covid-19 generó numerosos desafíos, entre ellos la formación universitaria por la suspensión de las actividades presenciales, por el aislamiento social. Hubo adaptaciones a la nueva realidad y el entorno virtual se convirtió en un aliado para estudiantes y docentes, sin embargo, con la persistencia del momento de la pandemia y la necesidad de mano de obra calificada, los estudiantes egresados de la carrera de Fisioterapia sintieron la necesidad de ingresar a la vida profesional. así, este artículo explica el proceso de implementación de un estudio de extensión en tiempos de pandemia y distanciamiento social, sus interacciones con la docencia y la investigación, así como las dificultades encontradas y los resultados preliminares. Este estudio busca rastrear a las personas diagnosticadas con Covid-19 y que requirieron hospitalización, evaluar su funcionalidad, monitorearlas y/o referirlas a servicios especializados. Las principales dificultades encontradas fueron el contacto con los pacientes y la disponibilidad y formación de los alumnos para realizar las valoraciones, ya sea telefónicamente o presencialmente. La vacunación de los estudiantes permitió el regreso a las actividades presenciales y con ello el acceso al sector covid, permitiendo identificar las principales limitaciones de los pacientes y acompañarlos o derivarlos a servicios especializados. Debido a la satisfacción con los resultados, se amplió el proyecto, abriendo la investigación y evaluación en la Unidad de Cuidados Intensivos Covid. Así, el proyecto permitió la articulación del trípode de docencia, investigación y extensión, coadyuvó en la formación académica de quienes cursaron el curso de Fisioterapia e involucró a la sociedad, supliendo sus necesidades en el actual escenario de pandemia, auxiliando en la rehabilitación posterior a la infección por SARS-CoV-2.

Palabras clave: Covid-19; Educación; Extensión universitaria.

1. Introduction

The Covid-9 pandemic created numerous challenges for society, among all human activities affected, academic teaching, especially university education, suffered a significant loss due to the physical distancing from the student-teacher relationship. The need for social isolation as a means of reducing virus spread, the fear of oneself contamination and infecting loved ones and imminent death paralyzed the population and, as a result, educational institutions suspended their face-to-face activities.

Universities, given their didactic-scientific autonomy (Constitution 1988) joined efforts in scientific research and extension actions in the search for, respectively, prevention/treatment/cure and support to community needs inside and outside the university walls. (Scheiber et al., 2021; Halpin et al., 2021)

Academic training, on the other hand, required adaptations to the new reality, theoretical classes, which took place in classrooms, and practical experiences were replaced by virtual environments, far from physical/face-to-face contact. Inasmuch, teachers began lecturing through digital platforms (Kaup et al., 2020), sharing knowledge - and anxieties - with their students through computer or cell phone screens, social networks and even telephone numbers. Additionally, in health care courses, especially the final semesters, there was the aggravating factor of having the human being as the main element involved in the teaching-learning process, accompanied by their biological, psychological and social weaknesses. (Dewart et al., 2020)

Coronavirus dissemination meant that, in the years 2020 and 2021, the practical subjects and curricular internships carried out in hospital environments seem unfeasible, since many health professionals ended up being contaminated and dying out of it (Lancet, 2020); which made the hospital environment unhealthy for educational processes. On the other hand, in a second moment, the labor market demanded new trained professionals and students at the end of their course felt the need to

redeem academic activities, graduation and beginning of their professional activities.

Based on these circumstances, this article aims to explain the process of implementing an extension study in times of pandemic and social distancing, its interactions with teaching and research, as well as describing the difficulties encountered and the preliminary results.

2. Methodology

This article is an exploratory research which was based on the methodology of Robins et al., (2018) and seeks to present the challenges encountered and preliminary results of the extension project “Covid-19 and its late effects: connection between University and Society in the formation of an identification and support network for convalescents”. The objectives of which are: to screen patients with Covid-19 diagnosis and complications who were hospitalized at the Hospital Santa Casa de Caridade de Uruguaiana (HSCCU), to assess the degree of dependence for activities of daily living developed, to monitor and propose physical therapy exercises - remotely or face-to-face - and/or refer individuals with severe limitations and who need regular face-to-face care to specialized services in the municipality of Uruguaiana.

The project was registered at SIPPEE/UNIPAMPA under nº 10.036.21

In the initial aim of our project, the University would be the communication link between civil society and individuals affected by Covid-19, from the perspective that the high demand for health services would make it difficult to monitor the colossal contingent of patients after hospital discharge.

From the partnership between HSCCU and the Federal University of Pampa (Unipampa), the telephone contacts of the patients were provided and after hospital discharge, an interview and physical-functional assessment were carried out, focusing on the degree of activities of daily living dependence and dyspnea. This assessment took place in person, by telephone or videoconference with convalescent patients.

Based on these assessments, individuals were classified into four groups: as individuals who were completely (1) independent for activities of daily living to those totally (4) dependent on third-party care. The next step would be the monitoring of these individuals, remotely and in person periodic therapeutic guidance or referral for rehabilitation in specialized health care services in the city.

3. Results

The actions reported here were developed between the periods of April and September 2021 and are intended to report the barriers faced at the time of project execution and the strategies developed to solve them.

3.1 Extension challenges in the midst of a pandemic

With the outbreak of the pandemic, practical activities at universities were canceled (Aquino et al., 2020); vocational courses, a time when students have effective contact with patients and with the routines of the profession (Mello et al., 2010), were postponed to a time of greater health security. As a result, the project encountered its first hurdle: finding volunteer academics capable of assisting in the first stage of the project and telephone contact with patients who were hospitalized by Covid-19. The first dialogue with the participant required adequate communication and that the evaluator knew how to guide the dialogue, since the evaluation took place in this initial conversation.

Another limiting factor was the available telephone number, as the contact often did not correspond to the individual mentioned, but to a family member or whoever was responsible for them during hospitalization. Sometimes the dialed number appeared as non-existent or the call was not answered. In these situations, we tried again at another time or forwarded a text

message, but even so, many cases were lost due to these reasons.

3.2 Tracking drop-offs

Due to telephone evaluations drop-offs, entry into the covid sector for face-to-face evaluations at the time of hospital discharge was considered.

Qualifying for the application of assessment instruments required training the team, both on questionnaires and scales, as well as instrumentation with protective equipment for entry into the sector (Felten-barentsz et al., 2020). In addition, it was necessary that students were properly immunized and safe, as there was the fear of disease transmitting, since the number of individuals immunized at that time was very small.

Many were afraid and fearful of the contamination; those who showed themselves to be available had not yet received the first dose of the immunizing agent, which being in contact with a contaminated environment in the covid ward impossible. In addition, there was a reduced availability of personal protective equipment necessary for adequate clothing, minimizing prevention and increasing the risk of contagion between students and the public during the assessment (Rose, 2020).

3.3 Retaking the vaccine

As the graduating students received the vaccine against the virus, the University approved the resumption of the practices of the undergraduating students, as long as the established preventive protocols were complied with (Ioannidis, 2021). The prospect of having a hospital experience, even in the midst of the current pandemic scenario, overcame the fear of contamination, encouraging students to carry out the activities proposed by the project. Thus, entry into the covid inpatient unit was initiated in search of face-to-face assessment of patients about to be discharged from hospital.

3.4 Who is the Covid patient?

Among the obstacles found during the evaluation process, dyspnea associated with viral infection (Wang, 2020) proved to be a potentially limiting factor for the application of evaluation instruments, since simple daily activities such as sitting without support or standing became impossible to be performed and, when they occurred, it was at the expense of intense shortness of breath, frequently seen in patients who required long-term hospitalization in the Intensive Care Unit (ICU) (Medrinal et al., 2021). Muscle weakness also proved to be an important limiting factor for the assessment, as it prevented the performance of joint movements, due to sarcopenia resulting from disuse due to length of stay.

During the execution of the project, extensive functional limitations imposed on patients who developed Covid-19 were evidenced. Therefore, the need for referral to specialized rehabilitation sectors was perceived (Li et al., 2021), however, the city's rehabilitation services did not support the excessive demand referred. In addition, many patients were discharged from hospital dependent on home physical therapy treatment, given the degree of functional limitations and the impossibility of health services displacement (Frutos-Reoyo et al., 2021). Accordingly, two actions were necessary: intensifying physical therapy care dose during hospitalization, in order to reduce functional limitations at the time and after hospital discharge, and implementing an outpatient clinic for the care of patients who were discharged with motor/muscle sequelae.

The outpatient care of patients with sequelae of Covid-19 started to rely on the performance of students from the curricular internship in Hospital and Outpatient Physiotherapy and by the physiotherapist of the Urgency and Emergency Residence, with patients who presented greater functional impairment and, consequently, greater degree of dependence on third parties to perform daily activities were prioritized for referral.

3.5 From extension to teaching and research

Due to the satisfactory results obtained soon after the beginning of the evaluations, we began to think about expanding the extension project and creating a research project, encompassing patients with Covid-19 admitted to the Intensive Care Unit (ICU). This allows comparison between clinical inpatient and intensive care patients. Furthermore, as there was the intention to expand the project, this would enable the integration of other professions and sectors of the hospital and not just physiotherapy, increasing the bond and multidisciplinary contact, adding even more to the study. Thus, in the course of planning, a research project entitled "Functional capacity and muscle strength of post-covid patients" was created, which will support a master's thesis by the Multicenter Graduate Program in Physiological Sciences at Unipampa.

With this project, the teaching, research and extension tripod is established and strengthens the academic training of the agents involved and additionally supports the needs of the community in which it is established.

4. Discussion

This study is a report of the adversities encountered and the solutions designed to carry out an extension project in times of pandemic, especially because it is inherent to the consequences of Covid-19 on the health of the population.

When understanding the influence of the Covid-19 pandemic on the functionality of individuals who need to be hospitalized, it was evident that, in addition to the limitations of daily activities, a number of individuals were completely unattended after discharge. This was most seen in the phone calls when many reported not having consulted with health professionals or following up on the Family Health Strategies (ESF). Despite the fact that we are living through an exceptional moment, this fact makes us reflect on the post-discharge care of different types of critically ill individuals and discuss the role of the University in this context. University life must revolve around the needs of the community, in which it operates, forming knowledge networks that investigate these needs, teach the population and professionals in training and generate social change, thus establishing the tripod of university extension (Miguel et al., 2021).

The intrinsic relationship between teaching, research and extension has to be stimulated in the academy, actions in these three dimensions feedback and encourage the production of knowledge, its apprehension by the academic community and the strengthening of the University's actions in society (Silva & Deboçã, 2018). In this sense, the Covid-19 pandemic, given its unprecedented nature, required intense participation from the university community in the production of new knowledge and academic practices, in order to understand the impact of Covid-19 on individuals and thus establish protocols based on scientific literature for adequate attention to the population. This guarantees health care rights turned back to society, promotes a better quality of life and contributes to social inclusion of disease affected individuals.

On the other hand, ethical issues were brought into debate, such as: - is it ethical to expose academics to the virus? as well as - is it ethical to abstain as health care teachers and students from this moment when society needs active agents and modifiers? The pandemic brought clashes between various sectors, from the personal to the collective levels and from the economic to the sanitary levels; however, the actors in this process will certainly be modified (Madruga, 2020). With regard to academic experience, the project provided the acquisition of unparalleled theoretical and practical knowledge, with an emphasis on the assessment and physical-functional rehabilitation of individuals affected by covid. The experience added both to the academics' personal and professional lives, making it possible to experience the atypical moment, instigating the search for knowledge on the part of the student in the face of unknown or never experienced situations. In addition, the association of theoretical contents seen during graduation with clinical practice, as well as the reflection on the importance of physical therapy in the current context and its role in promoting the population's health and quality of life, which would not have been possible without their participation in this project (Nogueira, 2013).

The inseparability of teaching, research and extension became a necessity and the academic community left its walls to produce and democratize knowledge and, thus, give meaning to training. In a short time, a lot has been researched and produced about the new coronavirus and Covid-19, but the production of scientific knowledge needs to have an impact on society, reducing inequalities in access to quality healthcare. The extension project's strategy allowed many to benefit from physical therapy services aimed at rehabilitation after covid infection, offering society the scientific and practical knowledge developed by the training institution and staff.

As it is a course that requires direct contact with the patient, especially students in the last years of the Physiotherapy course, they suffered a great impact from Covid-19 in their training (Gardas et al., 2021). The pause or the experience of remote learning meant that the interaction with the patient was limited or even non-existent, compromising the clinical skills of the students, which are developed through the experience. Moreover, the fact brought frustration to future professionals who have been waiting so long to put into practice the theory learned for years (Ramos-Morcillo et al., 2020). When it was possible to return to face-to-face activities, we found another reality that caught our attention. Due to the existing interval until this return, many students returned insecure and questioned their ability to rehabilitate. This fact awakens the importance of professional practical experience, both for their own return, promoting their competence and security, and for an institutional return, thinking about the professional who is being prepared for society.

The role of the physical therapist in health institutions, whether with the aim of in-hospital treatment of acute illness, or in the rehabilitation of sequelae at a late phase, proved to be essential (Dean et al., 2020); however, it opened up the weaknesses of many health services, especially basic health care, given the limited participation of physical therapists in the Family Health Strategies (FHS).

5. Conclusion

The proposed extension project enabled the articulation of the teaching, research and extension tripod; additionally it assisted in the academic training of the past year undergraduate students in Physiotherapy and, through this, it was possible to involve society and meet their needs in the current pandemic moment, helping to rehabilitate these individuals after SARS-CoV-2 infection.

Future studies should be carried out with a focus on analyzing the availability and accessibility of individuals infected with SARS-CoV-2 to the Physiotherapy service in the FHSs, as well as evaluating and monitoring these individuals, in order to identify if there are and what are the main limitations of this audience. Furthermore, it is suggested that there is a research aimed at students who had remote teaching as part of their professional training, identifying the main advantages and disadvantages of this teaching method.

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