







Perception of women about telehealth during the coronavirus pandemic (SARS-CoV-2)

Percepção de mulheres sobre o teleatendimento durante o período de pandemia do coronavírus (SARS-CoV-2)

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Abstract

Introduction: Since the new coronavirus (SARS-CoV-2) was declared a pandemic, health care was one of the fields that underwent significant changes. Telemedicine, that uses technological and communication resources to provide health care, was deemed a safe alternative to continue patient care while quarantine and social isolation measures were in place. **Objective:** To analyze the perception of women treated at an outpatient clinic in relation to remote health care implemented during the COVID-19 pandemic. **Methods:** Descriptive research conducted at the Women's Physiotherapy Outpatient Clinic of the Prof. Fernando Figueira Comprehensive Medicine Institute (IMIP) in Recife, Pernambuco state, Brazil. The study included women above the age of 18 years who were being remotely treated and excluded those who discontinued treatment. Data were collected from November 2020 to July 2021, using a questionnaire which was sent to the participants via WhatsApp. **Results:** Twenty-six women with an average age of 52 ± 10.1 years were interviewed. Most (61.54%) were being treated for urinary incontinence at the outpatient clinic and 38.5% had been undergoing physiotherapy for at least six months. A total of 92.3% of the participants reported feeling safe with remote health care and 70.4% noticed an improvement in their symptoms. **Conclusion:** Most patients noticed an improvement in their symptoms, felt comfortable and safe with teleservices and would agree to continue even after returning to in-person care. However, to ensure more effective results, patients need to be well informed and have some prior knowledge about the proposed treatment.

Keywords: COVID-19. Physiotherapy. Telemedicine. Women's health.

Resumo

Introdução: Desde que foi declarada a pandemia do novo coronavírus (SARS-CoV-2), a área da saúde foi um dos campos que sofreu significativas modificações. O teleatendimento em saúde, que consiste na utilização de recursos tecnológicos e de comunicação para prestar assistência em saúde, foi uma alternativa encontrada para continuar, de maneira segura, o cuidado com os pacientes enquanto vigoravam as medidas de quarentena e isolamento social. **Objetivo:** Analisar a percepção de mulheres assistidas em um hospital-escola do nordeste do Brasil referente ao teleatendimento implantado durante a pandemia de COVID-19. **Métodos:** Estudo descritivo transversal realizado no Ambulatório de Fisioterapia da Mulher do Instituto de Medicina Integral Prof. Fernando Figueira (IMIP), em Recife/PE. Foram incluídas mulheres maiores de 18 anos, em assistência remota via teleatendimento, excluindo aquelas que não deram continuidade ao atendimento por telessaúde. Para a coleta de dados, realizada de novembro de 2020 a julho de 2021, utilizou-se um questionário próprio, que foi enviado via WhatsApp para as participantes do estudo. **Resultados:** Foram entrevistadas 26 pacientes com idade média de $52 \pm 10,1$ anos. A maioria (61,5%) foi atendida no ambulatório para tratar incontinência urinária e 38,5% estavam em tratamento fisioterapêutico há pelo menos seis meses. A maioria (92,3%) relatou se sentir segura com a assistência remota e 70,4% perceberam melhora dos sintomas. **Conclusão:** A maior parte das participantes percebeu melhora dos sintomas, sentindo-se confortável e segura com o teleatendimento, e aceitaria continuar com o tratamento à distância mesmo após o retorno das atividades presenciais. Para uma resposta mais efetiva, contudo, as pacientes precisam ser bem orientadas e ter algum conhecimento prévio acerca do tratamento a ser proposto pela fisioterapia.

Palavras-chave: COVID-19. Fisioterapia. Telemedicina. Saúde da mulher.

Introduction

The coronavirus pandemic (SARS-CoV-2) declared by the World Health Organization (WHO) on March 11, 2020,¹ has had significant impacts on Brazilians. The quarantines and lockdowns decreed in several states changed the routines of schools, universities, businesses and events. Although considered an essential activity, health services also needed to be reorganized due to virus containment measures.²⁻⁴

One of the alternatives found to allow health professionals to continue providing care, while preserving the safety and integrity of professionals and patients during the pandemic, was telehealth.⁵ Law no. 13.989, published on April 16, 2020 in the Federal Official Gazette (Diário Oficial da União in Portuguese), authorized the use of telemedicine during the SARS-CoV-2 crisis.⁶

Telehealth is the use of technological and communication resources to provide long-distance healthcare when needed.⁷ Entities, such as the Federal Board of Medicine (CFM) and Federal Board of Physiotherapy and Occupational Therapy (COFFITO), authorized and regulated telemedicine in the following formats: teleconsultations (long-distance clinical consultation), telemonitoring (long-distance guidance, supervision and follow-up of patients previously treated in person), teleorientation (long-distance orientation and referral for quarantined patients), medical teleconsultation (exchange of information and opinions between doctors to help in diagnosis and therapeutic decisions) and teleconsultancy (long-distance communication between health professionals and administrators, aimed at clarifying doubts about health measures, clinical procedures and working processes in general).^{5,8}

Thus, hospitals and health units across Brazil started to use telemedicine for both suspected COVID-19 patients and those with chronic diseases or undergoing treatment or essential follow-up.⁹⁻¹¹ In Pernambuco state, the Prof. Fernando Figueira Comprehensive Medicine Institute (IMIP) implemented remote care in March 2020, with 800 consultations per week in 15 different specialties.¹²

The IMIP has several health facilities, including the Women's Health Center (CAM), which provides comprehensive care to women in all their life phases, using educational, preventive and therapeutic measures. Around 50,000 in-person consultations per year were performed before the SARS-Cov2 pandemic.^{13,14}

Telemedicine was implemented to provide continuous care to health service users, preserve the safety and integrity of health professionals and patients, and reduce the risk of overloading health systems, since only patients who really needed in-person care would go to a hospital.¹⁵ A study conducted in April 2020 found that telemedicine prevented direct contact and decreased the chances of SARS-CoV-2 transmission, in addition to playing an important role in controlling COVID-19 contamination.¹⁶ However, limitations include the lack of

contact and relationship between health professionals and patients, and the difficulty of conducting remote consultations that require physical examinations or interventions.¹⁷

In relation to physiotherapy, a retrospective comparative study compared the satisfaction level of patients who underwent in-person physiotherapy with those treated remotely. The study concluded that there was no significant difference between the satisfaction level of these two groups, but that further research is needed to assess the opinion of patients and professionals regarding the effect of telemedicine rehabilitation.¹⁸

As such, the present study aimed to apply a questionnaire to analyze the perception of women treated at the IMIP Women's Physiotherapy Outpatient Clinic regarding telemedicine during the coronavirus pandemic.

Methods

This is a cross-sectional descriptive study, conducted at the IMIP Women's Physiotherapy Outpatient Clinic, in Recife, Pernambuco state between August 2020 and August 2021. The research complied with National Health Council (CNS).¹⁹ Resolution 466/2012 and guidelines for research procedures at any stage in a virtual environment (N2/2021/CONEP/SECNS/MS)²⁰ and was approved by the IMIP Human Research Ethics Committee (CAAE 40863620.9.0000.5201).

The study consisted of women over 18 years old, treated by the IMIP Women's Physiotherapy Outpatient Clinic using telemedicine. The convenience sample was composed of all the women who continued telemedicine physiotherapy. Excluded were women who for any reason discontinued remote treatment.

The data collection instrument used was a questionnaire developed by the authors, containing 17 questions on sociodemographic and clinical characteristics, as well as patients' experience during the pandemic and telemedicine period. In the first phase of the study, the questionnaire was adapted on Google Forms, providing an access link and better understanding about each of the items. In the second phase, patients were contacted on WhatsApp, which they were already using for teleconsultations. The objectives of the study were explained to each of the participants,

as well as the possible risks and benefits, and the questionnaire link sent. Patients only had access to the questions after providing written informed consent.

In the third and final phase of the study, the data obtained were transcribed to Microsoft Excel spreadsheets, and after revision, exported for analysis and management to SPSS (version 20.0). During analysis, the means and the standard deviations of the quantitative variables, and absolute and relative frequency tables of all the categorical variables were constructed.

Results

A total of 32 women were contacted, two of whom declined to participate, one was excluded for not meeting the inclusion criteria and three did not respond, obtaining a final sample of 26 women.

The average age of the participants was 52 years, ranging from 23 to 78 (SD = 10.1). Most of the women were married (34.6%) and 30.8% were single. In terms of ethnicity, 73.1% self-declared as being of mixed race. With respect to schooling, 30.8% had incomplete elementary education, and 60.5% were unemployed (Table 1).

Participants were asked why they were undergoing physiotherapy at the IMIP Women's Physiotherapy Outpatient Clinic; 61.5% were treated for urinary incontinence (UI), 15.4% for pain during sexual relations, 11.5% for pelvic organ prolapse, and 11.5% for breast cancer. Most had been undergoing physiotherapy at the IMIP for more than one year (30.7%), 38.5% for 6 months to one year and 11.5% for more than two years.

With respect to COVID-19, 50% of the patients reported that a family member or an individual with whom they had daily contact had been infected by the coronavirus, 80.8% had not been contaminated and 19.2% had contracted the disease. Among the participants who were infected, the most common symptoms were bodily pain (16.7%), loss of smell (16.7%), loss of taste (16.7%), headache (13.3%), fever (13.3%) and runny nose (10%). While they were infected by COVID-19, 15.4% needed to discontinue physiotherapy, but returned as soon as possible.

In regard to teleconsultations, 69.2% reported understanding and executing physiotherapy instructions, while 30.8% understood, but had difficulty performing the exercises. When asked how they felt

during teleconsultations, 92.3% reported humanized care and safety and 3.5% were uncomfortable with telemedicine. Patients were also asked about the positive points and main difficulties of remote consultations. Among the positive points, 34.6% felt more welcomed by the physiotherapists, 26.9% enjoyed being able to consult on specific days, 23.1% felt more comfortable being at home, and 3.8% reduced traveling expenses. In the "other aspects" category of the questionnaire, 3.8% reported no positive points, since they were often interrupted during teleconsultations.

Table 1 - Sociodemographic characteristics of the study participants (n = 26)

Variable	n (%)
Marital Status	
Single	8 (30.76)
Common law	5 (19.23)
Married	9 (34.61)
Widow	4 (15.38)
Race	
Mixed race	19 (73.07)
White	7 (26.92)
Schooling level	
Incomplete elementary	8 (30.76)
Elementary	2 (7.69)
Incomplete secondary	3 (11.53)
Secondary	7 (26.92)
University graduate	5 (19.23)
Postgraduate	1 (3.84)
Residence	
Recife or metropolitan region	16 (61.54)
Rural area	5 (19.23)
Forest zone	5 (19.23)
Employed	
Yes	10 (38.46)
No	16 (61.54)

Note: n = absolute frequency; % = relative frequency.

Among the main difficulties, 30.8% of the patients reported not knowing if they were performing exercises correctly, 15.4% had difficult access to the internet, 15.4% used electrotherapy during in-person consultations and felt compromised for not being able to do so during

remote treatment. In addition, 7.7% of the subjects felt less connected to the physiotherapist and 30.8% reported having no difficulties with teleconsultations.

When asked about clinical symptoms, 70.4% of the patients reported an improvement in symptoms and 7.4% noticed a worsening. The subjects were asked if they wished to continue with teleconsultations and 63% agreed to do so even after the resumption of in-person consultations, while 37% preferred not to.

Discussion

This study collected data about the clinical and epidemiological characteristics and patient perception of remote consultations provided by a women's physiotherapy outpatient clinic during the COVID-19 pandemic.

Of the patients included in the present study, 61.5% were treated for UI at the outpatient clinic. Pelvic floor muscle (PFM) training is the most widely used method for UI treatment, more specifically for stress urinary incontinence (SUI).²¹ A randomized controlled trial compared the effectiveness of PFM training in an outpatient and home environment and found that telemedicine patients experienced less urine loss, similar to those treated in-person at an outpatient facility. In addition, the degree of treatment satisfaction was similar in the two groups.²² In the present study, 70.4% of patients perceived an improvement in symptoms. It is important to note that all the patients receiving remote follow-up had previous assessment and in-person consultations. However, the fact that 22.2% of the participants reported that symptoms persisted may be related to other factors, such as the lack of awareness of PFM contractions and difficulty in understanding and performing physiotherapy exercises.

There is evidence that before the start of a pelvic floor rehabilitation program, primarily when using PFM strengthening, it is important to ensure that patients know how to perform correct muscle contractions.²³ Most patients in this study had undergone outpatient pelvic physiotherapy for at least one year. As such, it can be inferred that they already had the minimum pelvic muscle control needed to perform home-based exercises, which may include specific PFM training, general stretching, abdominal training, thermotherapy, cryotherapy and perineal massage. This information

may justify the improvement in symptoms, and the fact that 69.2% of the subjects reported understanding and performing physiotherapy exercises.

Home-based PFM training is another important factor in treating pelvic floor dysfunctions, that is, exercises performed other than at consultations.²⁴ Training frequency has a direct influence on the results obtained.²⁵ It is believed that telemedicine has contributed to the increase in home-based training frequency, since 27% of patients reported that remote consultation reduced treatment no-shows, thereby improving motivation and consequently, the results.

Despite the positive results, physiotherapy still faces teleconsultation obstacles, such as costs, confidentiality and privacy, schooling level, understanding instructions and internet access.²⁶ The greatest difficulty reported by participants was the uncertainty of knowing whether they were performing the exercises correctly (30.8%), that is, the lack of feedback from the professional or the devices used during the sessions may be compromising factors. Another issue reported, albeit to a lesser extent, was the lack of internet access (15.4%). These difficulties demonstrate that, although it is an excellent tool to reduce the risk of COVID-19 infection and the significant potential of continuity, teleconsultation guidelines and criteria should be reassessed.²⁷

The use of telehealth has been one of the main strategies adopted during the COVID-19 pandemic to reduce morbidity and mortality rates, decrease virus transmission, protect health professionals and keep the health system functioning.²⁸ Of the patients in this study, 50% reported that family members or persons with whom they have daily contact were infected by COVID-19, but 80.76% were not contaminated. This is attributed to the fact that several studies have demonstrated the effectiveness of telemedicine in reducing contagion.²⁹⁻³¹ It is important to think about the future of teleconsultations and how they can be used even after the end of the pandemic and restrictions.

The study exhibits a number of limitations, such as difficult access to the questionnaire link due to the lack of understanding of the digital tool; difficulty reading and interpreting the questions, since some of the participants were illiterate and required help to complete the instrument; the limited number of participants, since even though all the women who underwent teleconsultation had been invited to participate in the study, the number of patients who continued remote treatment was small.

In addition, it was not possible to compare the results with a group treated in-person, since the cross-sectional design precludes analysis of causal interferences, which is suggested for future research.

Conclusion

Most of the patients perceived improved symptoms, felt welcome and safe and opted to continue with telemedicine even after resuming in-person activities. However, in order to obtain positive results, patients need to be well informed and have some previous knowledge about the proposed treatment. Despite being a new tool in Brazil and exhibiting limitations, teleconsultation is a promising treatment option if it is used safely with patients eligible for this type of care.

Authors' contribution

All the authors contributed to the study design, data collection, statistical analysis and result interpretation, as well as the writing, revision and approval of the final article, and are responsible for all aspects of the study.

References

1. Kamps BS, Hoffmann C. COVID Reference. 2 ed. Hamburg: Steinhauser Verlag; 2020. [Full text link](#)
2. Estado de Pernambuco. Decreto n. 48.809, de 14 de março de 2020. Regulamenta, no Estado de Pernambuco, medidas temporárias para enfrentamento da emergência de saúde pública de importância internacional decorrente do coronavírus. Recife: DOE; 2020 Mar 14. [Full text link](#)
3. Estado de São Paulo. Decreto n. 64.881, de 22 de março de 2020. Decreta quarentena no Estado de São Paulo, no contexto da pandemia do COVID-19 (Novo Coronavírus), e dá providências complementares. 2020 [cited 2020 Jun 3]. Available from: <https://tinyurl.com/bdzhkc78>
4. Estado do Ceará. Decreto n. 33.519, de 19 de março de 2020. Intensifica as medidas para enfrentamento da infecção humana pelo novo coronavírus. Fortaleza: DOE; 2020 Mar 19. [Full text link](#)

5. Conselho Federal de Medicina. Ofício CFM N. 1756/2020-COJUR, de 19 de março de 2020 [cited 2020 Jun 5]. Available from: <https://tinyurl.com/yc2scp65>
6. Brasil. Lei n. 13.989, de 15 de abril de 2020. Dispõe sobre o uso da telemedicina durante a crise causada pelo coronavírus (SARS-CoV-2). Brasília: Diário Oficial da União; 2020 Apr 16. [Full text link](#)
7. Wen CL. Telemedicina e telessaúde: um panorama no Brasil. *Info Publica*. 2008;10(2):7-15. [Full text link](#)
8. Conselho Federal de Fisioterapia e Terapia Ocupacional. Resolução n. 516, de 23 de março de 2020. Estabelece providências durante o enfrentamento da crise provocada pela Pandemia do COVID-19. Brasília: Diário Oficial da União; 2020 Mar 23. [Full text link](#)
9. Brasil. Ministério da Saúde. Mais de 2 milhões de pessoas já utilizaram o os serviços do TeleSUS. 2020 [cited 2020 Jun 2]. Available from: <https://tinyurl.com/mt74wej2>
10. Brasil. Smart HFA: Hospital das Forças Armadas inaugura serviço inédito de atendimento médico. 2020 [cited 2020 Jun 2]. Available from: <https://tinyurl.com/3ymjk22p>
11. Brasil. Ministério da Educação. Central de teleatendimento do HULW: perguntas e respostas. 2020 [cited 2020 Jun 2]. Available from: <https://tinyurl.com/mk3c2yza>
12. IMIP Notícias. IMIP realiza atendimentos por meio de teleconsultas. Recife: IMIP; 2020;42(521):7 [cited 2020 Jun 2]. Available from: <https://tinyurl.com/22ma9swt>
13. Instituto de Medicina Integral Professor Fernando Figueira. Comunicado. Recife: IMIP; 2020 [cited 2020 Jun 2]. Available from: <https://tinyurl.com/27jurmrv>
14. Instituto de Medicina Integral Professor Fernando Figueira. Saúde da mulher. Recife: IMIP; 2020 [cited 2020 Jun 2]. Available from: <https://tinyurl.com/4dnan46j>
15. Song X, Liu X, Wang C. The role of telemedicine during the COVID- 19 epidemic in China: experience from Shandong province. *Crit Care*. 2020;24(1):178. DOI
16. Song X, Liu X, Wang C. The role of telemedicine during the COVID- 19 epidemic in China: experience from Shandong province. *Crit Care*. 2020;24(1):178. DOI
17. Smith AC, Thomas E, Snoswell CL, Haydon H, Mehrotra A, Clemensen J, et al. Telehealth for global emergencies: Implications for coronavirus disease 2019 (COVID-19). *J Telemed Telecare*. 2020;26(5):309-13. DOI
18. Eannucci EF, Hazel K, Grundstein MJ, Nguyen JT, Gallegro J. Patient satisfaction for telehealth physical therapy services was comparable to that of in-person services during the COVID-19 pandemic. *HSS J*. 2020;16(Suppl 1):10-16. DOI
19. Brasil. Resolução nº 466, de 12 de dezembro de 2012. Aprova diretrizes e normas regulamentadoras de pesquisas envolvendo seres humanos. Brasília: Diário Oficial da União; 13 jun 2013. [Full text link](#)
20. Ministério da Saúde. Ofício Circular Nº 2/2021. Orientações para procedimentos em pesquisas com qualquer etapa em ambiente virtual. Comissão Nacional de Ética em Pesquisa - CONEP. Brasília; 2021 [cited 2022 Mar 28]. Available from: <https://tinyurl.com/5n88c93v>
21. Governo Federal. Teleatendimento se torna alternativa durante a crise da Covid-19. 2021 [cited 2021 Sep 4]. Available from: <https://tinyurl.com/2tdspek9>
22. Fitz FF, Gimenez MM, Ferreira LA, Matias MMP, Bortolini MAT, Castro RA. Pelvic floor muscle training for female stress urinary incontinence: a randomised control trial comparing home and outpatient training. *Int Urogynecol J*. 2020;31(5): 989-98. DOI
23. Pereira FS, Conto CL, Scarabelot KS, Virtuoso JF. Treinamento dos músculos do assoalho pélvico em mulheres com dispareunia: um ensaio clínico randomizado. *Fisioter Bras*. 2020;21(4):380-7. DOI
24. Cidade GCB, Araújo KT, Oliveira KP, Duarte TB. Efeito do treinamento dos músculos do assoalho pélvico na prevenção da incontinência urinária na gestação: revisão de literatura. *Amazon Live J*. 2021;3(3):1-11. [Full text link](#)

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25. Miot AH. Análise de correlação em estudos clínicos e experimentais. *J Vasc Bras.* 2018;17(4):275-9. [DOI](#)
26. Dantas LO, Barreto RPG, Ferreira CHJ. Digital physical therapy in the COVID-19 pandemic. *Braz J Phys Ther.* 2020;24(5):381-3. [DOI](#)
27. Monaghesh E, Hajizadeh A. The role of telehealth during COVID-19 outbreak: a systematic review based on current evidence. *BMC Public Health.* 2020;20(1):1193. [DOI](#)
28. Song X, Liu X, Wang C. The role of telemedicine during the COVID-19 epidemic in China: experience from Shandong province. *Crit Care.* 2020;24:178. [DOI](#)
29. Caetano R, Silva AB, Guedes ACCM, Paiva CCN, Ribeiro GR, Santos DL, et al. Desafios e oportunidades para telessaúde em tempos da pandemia pela COVID-19: uma reflexão sobre os espaços e iniciativas no contexto brasileiro. *Cad Saude Publica.* 2020;36(5):e00088920. [DOI](#)
30. Coradassi CE, Mansani FP, Benassi G, Preuss LT, Borges PKO, Gomes RZ. Teleatendimento no enfrentamento à Covid-19. *Rev Conex UEPG.* 2020;16: e2016413. [DOI](#)
31. Amancio AM, Viana JCM, Sousa LC, Cunha RIM, Ferreira MAF. Teleatendimento no controle da COVID-19 no Rio Grande do Norte. *Rev Ext Soc.* 2020;12(1). [DOI](#)