REVISTA CIÊNCIAS EM SAÚDE
HEALTH SCIENCES JOURNAL e-ISSN 2236-3785

REVIEW ARTICLE

Tele-interconsultation and the challenges for maintaining health care in pandemic times

Teleinterconsulta e os desafios da assistência em saúde em tempos de pandemia

Jorge Gelvane Tostes[1,*], Carla Benedita da Silva Tostes[1], Rodrigo Petrim Cruz[1], Vanessa Santos de Souza[1], Maria das Graças Mota Cruz de Assis Figueiredo[1], Rosana Alves[1,2]
[1]*Faculty of Medicine of Itajubá. Itajubá, Minas Gerais, Brazil.*
[2]*Faculdades Pequeno Príncipe. Curitiba, Paraná, Brazil.*

Received 30 Oct 2020, accepted 19 Mar 2021, published 21 Jun 2021

KEYWORDS
Telemedicine
Tele-interconsultation
Primary health care
Pandemic

ABSTRACT

Telemedicine has proven to be an important tool for the assistance continuity facing the current COVID-19 pandemic. We discussed the role of tele-interconsultation and remote matrix support as resources, within the scope of the Unified Health System, in supporting primary care teams, aiming at maintaining quality and resolution, increasing demand for services, as well as the limitations to their implementation. There are difficulties in access by the population, the need for investment and resistance by professionals and managers. It is still necessary regulation of telemedicine activity in the country, given that the permission by the Federal Council of Medicine occured only during the pandemic. The ability to fill gaps and deficiencies left by specialized services and reference centers stands out, since there is an increase in demand in several areas. In addition, the opportunity for learning, safety in conduct and empowerment of primary care professionals is investigated.

PALAVRAS-CHAVE
Atenção primária à saúde
Pandemia
Teleinterconsulta
Telemedicina

RESUMO

A telemedicina tem se mostrado como importante ferramenta para a continuidade da assistência diante da atual pandemia de COVID-19. Discutimos o papel da teleinterconsulta e do telematriciamento como recursos, no âmbito do Sistema Único de Saúde, no suporte às equipes da atenção básica, visando manutenção com qualidade e resolutividade, aumento de demanda por serviços, assim como limitações à sua implantação. Há dificuldades no acesso por parte da população, necessidade de investimento e resistência por profissionais e gestores. Ainda é preciso uma regulamentação da atividade de telemedicina no país, visto que a permissão pelo Conselho Federal de Medicina ocorreu somente durante a pandemia. Destaca-se a capacidade de suprir lacunas e carências deixadas pelos serviços especializados e centros de referência, visto que ocorre aumento de demanda em diversas áreas. Ademais, indaga-se a oportunidade de aprendizado, segurança nas condutas e empoderamento aos profissionais da atenção básica.

*Corresponding author:
Faculdade de Medicina de Itajubá. Addr.: Av. Rennó Júnior, 368. Bairro: São Vicente. Itajubá, MG, Brasil | CEP: 37.502-138
Phone: +55 35 3629-8700
E-mail: jorge.tostes@fmit.edu.br (Tostes JG)

This study was conducted at the Faculty of Medicine of Itajubá (FMIT)

https://doi.org/10.21876/rcshci.v11i2.1069

How to cite this article: Tostes JG, Tostes CBS, Cruz RP, Souza VS, Figueiredo MGMCA, Alves R. Tele-interconsultation and the challenges for maintaining health care in pandemic times. Rev Cienc Saude. 2021;11(2):5-9. https://doi.org/10.21876/rcshci.v11i2.1069

INTRODUCTION

The world lives a situation that has never occurred in contemporary history: the pandemic of the new coronavirus (COVID-19), officially decreed by the World Health Organization on March 11, 2020[1]. This scenario determined changes in various sectors such as the economy, education and at work[2]. Likewise, the pandemic highlighted the importance of adapting and promoting alternatives in the health system, in order to secure continuity of care[3]. While the proliferation rates and transmission speed of COVID-19 remain high, social distance, the use of masks and constant hand hygiene as protective measures keep necessary. In-person school activities and companies closed momentarily, reduced the number of employees, or had to adapt in order to allow part of them to work from home. There are impacts on the economy and social life and, especially, on the health system that is burdened with a new and growing demand, for which there were no known conduct protocols or treatments[4].

In an attempt to contribute towards easing this overload and improving safety, telemedicine was highlighted[5]. Corroborating the need for new assistance resources, it is observed that hospitals, emergency rooms and specialized services have their service capacity compromised due to the adequacy to the current moment and the new demand[6].

Although the advent of modern telemedicine gained prominence in the late twentieth century in the context of the development of information and communication technologies (ICTs), it is still a relatively emerging activity. Until then, it faces technical, legal, ethical, regulatory, and cultural challenges, among others, thus limiting its ubiquitous unfolding process. However, in recent years, the increase in demand for health services associated, for example, with population aging in developed countries, has promoted the expansion of this need in health services[7].

In the current context of uncertainties produced by the pandemic, it is shown as a precautionary measure to reduce the demand for emergency rooms and hospitals, avoiding the risk of contagion to patients who need care for other health problems[8]. The Unified Health System (SUS), already known to be overburdened, now faces a new challenge, which is to maintain assistance to the usual needs, in addition to the new and growing demand produced by the pandemic. Some strategies that seek to qualify and speed up the process are already in the domain of SUS. Among these strategies are inter-consultation and matrix support, and there is an understanding that these are instruments that can contribute to expand the service capacity and bring greater resolution to Primary Health Care (PHC). Such practices seek to promote integration and can be complementary when adding the specialist to PHC[9].

The implementation of these tools in PHC seeks to articulate competences, knowledge and different spheres of services and seeks to alleviate the dichotomy of knowledge resulting from modern science. Thus, it is expected that there will be benefits for the patient, the teams and the health system. As for the patient, we seek better quality of care and greater sensitivity and specificity in the diagnosis; in relation to the health teams, it allows continuous and permanent education, practices recommended by SUS[10]. Finally, with regard to the health system, the cost is reduced by offering greater resolution in a smaller number of consultations, without the patient moving unnecessarily through different specialists and services, in addition to unblocking the overloaded flow of more complex levels of care and implementing comprehensive care in the SUS[11].

Both resources have the function of assisting primary care teams by creating the opportunity to discuss possible diagnostic hypotheses in controversial situations, to clarify questions pertinent to the diagnosis and to make differential diagnoses of diseases with the participation of different specialties. In addition, it offers a second look at the clinical case, adding quality to the service, exercising care in an integrated manner, and providing security to the professional who gives the assistance. Finally, it also allows the interconsultant to expand his/her training[12].

There are no rules that rigidly structure the process of this discussion, but some points must be debated and are important for a global understanding of the clinical picture. They are: the reason why that case demanded interconsultation, since only complicated or complex pictures should be destined to this modality; the current situation of that patient; the therapeutic resources available, that is, which therapeutic options are feasible, considering those that have already been tried and have not been successful; the patient's socioeconomic resources; and how to offer support at the same time as pharmacological therapy, creating a bond with the team in order to create an environment of safety, support and overcoming[13].

The joint consultation also forms a modality of inter-consultation, but extended to the participation of the whole team, being thus called matrix support. It is an in-service learning technique aimed at providing resolutive responses to health care demands that bring together, in the same scene, health professionals from different categories, the patient and, if necessary, his/her family. It aims to improve the care task regarding the quality of care, professional qualification and arises from the need to provide resolutive answers. As in the discussion of clinical cases, this modality must be requested in complex situations in which the acting physician is unable to institute therapy alone. Benefiting, then, from the view and performance of other specialists[14].

BARRIERS AND CHALLENGES OF TELEMEDICINE AND TELE-INTERCONSULTATION

Bonuses from ICTs for speed and access, cost reduction and number of in-person visits could also include a reconfiguration of health services mediated by technology. It would allow the communion of skills and specialties, being a foundation in overcoming physical distance access[15].

However, conditions such as low investment, resistance from professionals and service organizations are still obstacles to the evolution of the process. Another important challenge is the change in the doctor / patient relationship in the context of telemedicine through bilateral acceptance, which, unlike innovative products, happens in a slow way[16,17].

Access to telemedicine can be particularly challenging for low-income people and countryside residents , who may not have reliable access to the Internet through smartphones or computers. Older patients are at higher risk for severe coronavirus symptoms and, in general, require more frequent primary care. They could then benefit greatly from telehealth to reduce the risk of personal exposure. However, many elderly people may not feel comfortable or not be able to use these technologies[18].

In the context of the pandemic, the limitation in the use of telehealth in terms of physical examination, complementary exams and diagnosis is evidenced, for the time being, especially in relation to infection by coronavirus. In addition, patients in severe conditions and with cognitive disorders may have difficulty using these technologies[17,19,20].

Specifically in relation to tele-interconsultation, a relevant concern to these resources is the user's exposure to more than one professional. Before its completion, it is necessary to discuss the conditions of care with the patient and, ideally, obtain a consent form. In addition, another obstacle to joint consultation is the difficulty of bringing together two or more professionals to care for a single patient, given the burden of SUS[21]. Despite the concerns and obstacles faced with the practice of inter-consultation, the care becomes so thorough, welcoming, and complete that pharmacological therapy is often dispensed, requiring only qualified listening[22].

REMOTE MATRIX SUPPORT AND TELE-INTERCONSULTATION AS TOOLS FOR THE EMPOWERMENT OF PHC TEAMS

The term remote matrix support comes from an adaptation and updating of what is characterized by the Ministry of Health as matrix support. It is defined as a way of producing health in which two or more teams, in a process of shared construction, create a proposal for pedagogical-therapeutic intervention[23]. As a result, it consists of interprofessional work in different areas of health, which communicate and work together in order to offer comprehensive treatment to the patient, meeting their demands in broader spheres, under the view of different health perspectives. Thus, we can infer some advantages, such as minimizing the displacement and unnecessary counter references of the patient within the health service, obtaining resolution in a shorter period and reducing the demand for tertiary levels of care such as hospitals and emergency rooms[24]. Tele-interconsultation, on the other hand, is an adaptation and updating of inter-consultation, which is seen as the main instrument of matrix support in primary care and is also the term used to refer to this type of health care[23]. The main objective of this strategy is to assist those who provide assistance, cooperating in the task to be performed and working together with the medical team[25].

Tele-interconsultation, as already defined, is an update of in-personal Interconsultation, which can be carried out in isolation or as a remote matrix support strategy. Besides the current needs arising from the pandemic, another factor that justifies the search for innovation and new technologies for these strategies is the quality of care. The quality of health care has been consistently documented to be below what is necessary, especially in low- and middle-income countries. The reasons commonly named include inaccurate diagnoses, inadequate or unnecessary treatments, inadequate or unsafe clinical practices, along with a number of other systemic issues, such as the quality of inputs and insufficient and limited infrastructure[26].

Although the low quality of care results from several deeply rooted challenges in the health system, the decision support tools that offer guidance to health professionals have been used as a mechanism to increase adherence to recommended clinical practices[27]. In this sense, telemedicine, when put into practice, could be an important resource to support decision and follow-up, especially in the tele-interconsultation and remote matrix support modalities. They can be practiced through a wide range of actions, ranging from case discussions among professionals to joint interventions. The sharing of cases often consists of the first form of joint action by professionals and is one of the forms of tele-interconsultation in which greater use is obtained. In addition, it also allows a biopsychosocial view of the individual, to integrate different dimensions of the problem[11].

There is the need for care and formalities for the organization of the care process to ensure the quality and safety of the patient and information. However, the tele-interconsultation mode brings resources and opportunities to both the patient and the PHC professional. To the first, an access to the specialist within his/her territory and in the reassuring presence of a professional who already assists him/her and knows his/her demands. To the second, the security of having the expert's opinion in more complex cases in real time, offering security in the conducts, greater resolution and even, having the opportunity to learn.

THE COVID-19 PANDEMIC AND HEALTH CARE

The SARS-CoV-2 virus has a high potential for transmissibility, with 3% to 15% of patients progressing with severe forms of pneumonia and / or severe respiratory syndrome, which may require treatment in intensive care units and ventilatory support[28].

Given this and as an example, there is already an increase in the need for care with mental suffering demands. There are factors that can precipitate such suffering, such as the increasing number of deaths due to the virus, fear of becoming ill and transmit to the

loved ones, the economic impact resulting from the stop and the unpredictability of this scenario's end[29]. In addition to emotional suffering, it is known that affective states such as anguish and depression trigger changes in the endocrine and immune functioning and create susceptibility to physical diseases such as heart disease[30]. Besides, anxiety and fear can lead many individuals to seek care in basic health units and emergency rooms. Thus, the need to know how to recognize emotional distress in clinical practice is evident, as well as the appropriate treatment for mental disorders in primary care, at all times[23], but especially at this critical moment.

Bearing in mind that the places with the greatest potential for contagion may be the emergency rooms and emergency care units, significantly reducing in-person access is a necessity. To this end, it is essential to redistribute the demands to less complex service sectors and to enable the teams to carry out this feat with quality and in a resolutive manner. In that regard, remote matrix support and tele-interconsultation could be tools of great importance, insofar as they can make attention in PHC more resolutive. The use of a virtual platform that includes audiovisual communication is preferable, which contributes to the formation of closer links among the professionals and partially minimizes the loss of human contact, an important part of humanized therapy[31].

REGULATION OF TELEMEDICINE IN BRAZIL

Supporting this possibility, the Federal Council of Medicine (CFM) recognizes, conceptualizes, and regulates the term telemedicine since 2002 (CFM Resolution No. 1,643 / 2002 / article 1)[32]: It defines Telemedicine as the "Exercise of Medicine through the use of interactive methodologies of audiovisual and data communication, with the objective of assistance, education and research in Health." Telemedicine can be exercised in three ways: through teleconsultation (virtual consultation with the patient, performance recently approved by the CFM due to the pandemic scenario); telemonitoring (remote monitoring of health and / or disease parameters, when applicable); and tele-interconsultation (exchange of information and opinions among physicians). That said, it is a legally authorized and recognized practice.

Therefore, telemedicine and tele-interconsultation can be used, as long as they comply with the technical standards determined by the CFM, with regard to data transmission, confidentiality, privacy and medical secrecy, and also, as long as there is an adequate technological infrastructure that allows their exercise. This is the necessary adaptation of health care to the conditions imposed by the pandemic[25].

According to CFM President Carlos Vital, in an official publication on the CFM virtual platform, on February 3, 2019, the possibilities that open up in Brazil with this regulatory change are substantial and need to be used by physicians, patients and managers with full compliance with CFM recommendations. "We believe, for example, that in the sphere of public health, this innovation will be revolutionary in allowing the construction of remote care lines, through digital platforms".

CONCLUSION

Facing the challenges of the current crisis, telemedicine resources have gained prominence and proved to be important tools to overcome obstacles imposed by the need for social isolation. They offer the opportunity to take quality medical care to more remote regions, either directly by teleconsultation or through tele-interconsultation and remote matrix support. So, an unprecedented crisis drives attention to resources that can contribute to greater inclusion in care and improve the training of primary care teams and integration between services and professionals.

However, there are still many barriers to be overcome, ranging from the implementation of ICTs, the access of the most vulnerable populations to these resources, as well as the adhesion of professionals and the regulation of the different modalities of telemedicine beyond the pandemic.

Despite the challenges and limits, it seems possible and very likely that, after the pandemic, many of these resources will remain and be integrated into the daily lives of several professionals, adding quality to health services, especially in PHC.

REFERENCES

1. Wang D, Hu B, Hu C, Zhu F, Liu X, Zhang J, et al. Clinical characteristics of 138 hospitalized patients with 2019 novel coronavirus-infected pneumonia in Wuhan, China. JAMA. 2020;323(11):1061-9. https://doi.org/10.1001/jama.2020.1585 PMid:32031570 PMCid:PMC7042881
2. Wilder-Smith A, Freedman DO. Isolation, quarantine, social distancing and community containment: pivotal role for old-style public health measures in the novel coronavirus (2019-nCoV) outbreak. J Travel Med. 2020;27(2):taaa020. https://doi.org/10.1093/jtm/taaa020 PMid:32052841 PMCid:PMC7107565
3. Engstrom E, Melo E, Giovanella L, Mendes A, Grabois V, Mendonça MHM. Recomendações para a organização da atenção primária à saúde no SUS no enfrentamento da COVID-19 [Internet]. Rio de Janeiro: Fiocruz; 2020 [cited 2021 May 5]. Avaiable from: https://bit.ly/3nQ2HEO
4. Hale T, Anania J, Angrist N, Boby T, Cameron-Blake E, Ellen L, Goldzmidt, et al. Variation in government responses to COVID-19. Version 11.0. Oxford, UK: Blavatnik School of Government Working Paper; 2021. Avaiable from: www.bsg.ox.ac.uk/covidtracker
5. Greenhalgh T, Wherton J, Shaw S, Morrison C. Video consultations for covid-19. BMJ 2020;368:m998. https://doi.org/10.1136/bmj.m998 PMid:32165352
6. Daumas RP, Silva GA, Tasca R, Leite IC, Brasil P, Greco DB, et al. O papel da atenção primária na rede de atenção à saúde no Brasil: limites e possibilidades no enfrentamento da COVID-19. Cad Saúde Pública. 2020;36(6):e00104120. https://doi.org/10.1590/0102-311x00104120 PMid:32609166

7. Remondini C, van Gaal M. Philips takes on GE, Intel for $8 billion remote health sales [Internet]. [published 2010 Nov 10; cited 2021 May 5]. Avaiable from: https://bloom.bg/3nQMl9y
8. World Health Organization (WHO). Operational considerations for case management of COVID-10 in health facility and community: interim guidance [Internet]. Copenhagen, DK: WHO; 2020 Mar 19 [cited 2021 May 5]. Avaiable from: https://bit.ly/33gYu3t
9. Castro CP, Campos GSW. Apoio Matricial como articulador das relações interprofissionais entre serviços especializados e atenção primária à saúde. Physis. 2016;26(2):455-81. https://doi.org/10.1590/S0103-73312016000200007
10. Silveira ER. Práticas que integram a saúde mental à saúde pública: o apoio matricial e a interconsulta. Ciênc Saúde Coletiva. 2012;17(9):2377-86. https://doi.org/10.1590/S1413-81232012000900018 PMid:22996888
11. Farias GB, Fajardo AP. A interconsulta em serviços de atenção primária à Saúde. Rev Gestão Saúde [Internet] 2015;6(Suppl 3):2075-93. Avaiable from: https://bit.ly/3utYU2M
12. Martins LAN. Interconsulta Hoje. Porto Alegre: Artes Médicas; 1992.
13. Brasil, Ministério da Saúde, HC-UFTM, Ebserh. POP: Fluxo de processo de interconsulta – Divisão de Gestão do Cuidado. Uberaba, MG: Hospitais Universitários Federais, filia Ebserh; 2017 [cited 2021 May 5]. 12 p. Avaiable from: https://bit.ly/3xRe8R9
14. Mello JF, Silveira LMC. Consulta Conjunta: uma estratégia de capacitação para a atenção integral à saúde. Rev Bras Educ Médica. 2005;29(2):147-51. https://doi.org/10.1590/1981-5271v29.2-021
15. Clark M, Goodwin N, WSD Action Network. Sustaining innovation in telehealth and telecare. London: The King's Fund; 2010 [cited 2021 May 5]. Avaiable from: https://bit.ly/2SyAZBb
16. Maldonado JMSV, Marques AB, Cruz A. Telemedicine: challenges to dissemination in Brazil. Cad. Saúde Pública [Internet]. 2016 [cited 2021 Feb 21];32(Suppl 2):e00155615 https://doi.org/10.1590/0102-311X00155615 PMid:27828681
17. Caetano R, Silva AB, Guedes ACCM, Paiva CCN, Ribeiro GDR, Santos DL, Silva RMD. Challenges and opportunities for telehealth during the COVID-19 pandemic: ideas on spaces and initiatives in the Brazilian context. Cad Saude Publica. 2020;36(5):e00088920. https://doi.org/10.1590/0102-311x00088920 PMid:32490913
18. Bashshur RL, Shannon G, Krupinski EA, Grigsby J. Sustaining and realizing the promise of telemedicine. Telemed eHealth. 2019;19(5):339-45. https://doi.org/10.1089/tmj.2012.0282
19. Fernandez A, Oviedo E. Introduction. In: Fernandez A, Oviedo E, eds. eHealth in Latin America and the Caribbean: progress and challenges. Santiago: ECLAC, United Nations; 2011 [cited 2021 May 6]. p5-10. Avaiable from: https://repositorio.cepal.org/handle/11362/3001
20. World Health Organization, International Telecommunication Union. National eHealth strategy toolkit. Geneva: WHO, ITU; 2012 [cited 2021 May 6]. Avaiable from: https://apps.who.int/iris/handle/10665/75211
21. Delziovo CR, Morrtti-Pires RO, Coelho EBS. Apoio matricial: a assistência na atenção básica. Florianópolis: Universidade Federal de Santa Catarina – UnaSUS; 2012.
22. Kumpel WF. A interconsulta como dispositivo importante para resolutividade na Unidade Básica de Saúde Morretes, Itapema - SC [Monography]. Itapema, SC: Universidade Federal de Santa Catarina; 2018 [cited 2021 May 6]. Avaiable from: https://bit.ly/3em4LBi
23. Brasil, Ministério da Saúde. Centro de Estudo e Pesquisa em Saúde Coletiva. Guia prático de matriciamento em saúde mental. Brasília, DF: Ministério da Saúde; 2011 [cited 2021 May 6]. Avaiable from: https://bit.ly/3xPX3XP
24. Medeiros RHA. Uma noção de matriciamento que merece ser resgatada para o encontro colaborativo entre equipes de saúde e serviços no SUS. Physis. 2015;25(4):1165-84. https://doi.org/10.1590/S0103-73312015000400007
25. Andreoli PBA, Mari JJ. Assessment of a consultation-liaison psychiatry and psychology health care program. Rev Saúde Pública 2002;36(2):222-9. https://doi.org/10.1590/S0034-89102002000200015 PMid:12045804
26. World Health Organization, OECD & International Bank for Reconstruction and Development. Delivering quality health services: a global imperative for universal health coverage. Geneva: World Health Organization; 2018 [cited 2021 May 6]. Avaiable from: https://bit.ly/3vOSNWG
27. Agarwal S, Tamrat T, Glenton C, Lewin S, Henschke N, Maayan N, et al. Decision-support tools via mobile devices to improve quality of care in primary healthcare settings (protocol). Cochrane Database Syst Rev 2018;(2):CD012944. https://doi.org/10.1002/14651858.CD012944 PMCid:PMC6491204
28. Zhou F, Yu T, Du R, Fan G, Liu Y, Liu Z, et al. Clinical course and risk factors for mortality of adult inpatients with COVID-19 in Wuhan, China: a retrospective cohort study. Lancet. 2020;395:1054-62. https://doi.org/10.1016/S0140-6736(20)30566-3
29. Ornell F, Schunch J, Sordi A, Kessler F. "Pandemic fear" and COVID-19: mental health burden and strategies. Braz. J. Psychiatry 2020;42(3):232-5. https://doi.org/10.1590/1516-4446-2020-0008
30. Bokma WA, Batelaan NM, Beek AM, Boenink AD, Smit JH, Balkmom AJLMV. Feasibility and outcome of the implementation of a screening program for panic disorder in noncardiac chest pain patients in cardiac emergency department routine care. Gen Hosp Psychiatry 2015;37(5):485-7. https://doi.org/10.1016/j.genhosppsych.2015.06.005 PMid:26135902
31. Conselho Nacional de Secretarias Municipais de Saúde. Tecnologia ajuda pacientes e profissionais de saúde durante a pandemia da COVID-19 [Internet]. Brasília, DF: CONASEMS; 2020 [cited 2021 May 6]. Avaiable from: https://bit.ly/3vKg5NB
32. Conselho Federal de Medicina (CFM). Ofício CFM Nº1756/2020. Brasília: COJUR; 2020. Avaiable from: https://bit.ly/2RtgJ3l
33. Conselho Federal de Medicina (CFM). Telemedicina: CFM regulamenta atendimentos online no Brasil. [Internet]. 2019 Feb 03 [cited 2021 Jun 17]. Avaiable from: https://bit.ly/3vtHYsB

Conflicts of interest: No conflicts of interest declared concerning the publication of this article.

Individual contribution of the authors:
Writing of the manuscript: JGT, CBST, RPC, VSS, MGMCAF, RA
Critical revision of the article: JGT, RA, MGMCAF
Final approval of the manuscript*t: JGT, CBST, RPC, VSS, MGMCAF, RA
Overall responsibility: JGT
*All authors have read and approved of the final version of the article submitted to Rev Cienc Saude.

Funding information: not applicable.