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EVALUATION OF TELESSAÚDE-MT TELE-CONSULTING SERVICES REQUESTED BY PRIMARY HEALTH CARE DOCTORS

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Abstract: The goal of this research was to identify the profile of teleconsultations and to analyze the satisfaction of doctors who use the Centro Técnico Científico de Telessaúde Mato Grosso, from 2015 to 2018. This is a descriptive study with a qualitative approach. The answers contained in the teleconsulting Evaluation form were analyzed in the field "Criticisms or suggestions. As for satisfaction, 70% of users said they were satisfied or very satisfied and 61.6% considered that the teleconsultant's answer fully answered their question. Data were organized into two categories. In the Potentialities category, it was observed that the program provides confidence to the professional for decision-making, stimulates study and updating and, mainly, overcomes geographical distances. In the Frailties Category, the delay in receiving responses, ineffective responses and difficulties in understanding the functioning of the program were identified. Telehealth proved to be an important tool to support the medical professional, in addition to the referrals that were avoided and, consequently, the increase in resolution and savings for the Unified Health System.

Keywords: Telemedicine; Health services.

INTRODUCTION

According to the World Health Organization (WHO) Telehealth is defined as the offer of activities aimed at Primary Health Care (PHC) by professionals in the area, in which the geographic space is a determining factor, using Information Technologies and Communication (ICT)[5].

In Brazil, Telehealth was implemented in 2007, as a pilot project in nine states of the Union: Amazonas, Ceará, Goiás, Minas Gerais, Pernambuco, Rio de Janeiro, Rio Grande do Sul, Santa Catarina and São Paulo1. This program seeks to increase the exchange of experiences between professionals, promote the decentralization of the service and is responsible for offering teleconsultations, tele-education, telediagnostics and a formative second opinion[6].

Telehealth needs to be part of a plan that considers the global context of action and cooperation, and for that, factors such as location and time are considered, and it is not possible to import a telemedicine process and apply it to any reality. Its effective implementation must take place with an assessment of the cost-benefit dyad9. According to data from the Telehealth Center of Minas Gerais, for every dollar we invest in the program, 2.24 dollars are saved10. The savings generated are mainly linked to the reduction of referrals to specialists, injuries and complementary exams[11].

In 2022, the Technical Scientific Center of Mato Grosso is undergoing restructuring with investment from the State Health Department. New modalities of telehealth care are being implemented, namely: interconsultation and teleconsultation, a fact enhanced by the current scenario, that of the pandemic caused by the coronavirus (COVID-19).

For proper governance of the Telessaúde MT program, it is essential to carry out research aimed at contributing to the system's feedback, allowing the evaluation and monitoring of actions to increase the resolution of PHC.

In this context, the objective of this research was to identify the profile of teleconsultations and to analyze the satisfaction of doctors who use the Technical Scientific Center of Telehealth Mato Grosso, from 2015 to 2018.

MATERIAL AND METHODS
RESEARCH SCOPE

The research covered the entire state of Mato Grosso, which is located in the center-

west region of the country, being the third largest unit of the federation in territorial size, the estimate of its population, in 2015, is 3,265,468 inhabitants[12]. The state has 141 municipalities and they are distributed in sixteen (16) Regional Health Offices.

RESEARCH CHARACTERIZATION

This is a descriptive and exploratory study with a quantitative and qualitative approach. After completing the teleconsultation, the user doctors carry out the evaluation of the entire process. The objective descriptive answers in the field "*Criticism or suggestions*" Were analysed.

For objective data, descriptive statistical analysis was performed.

For the descriptive data, the analysis was performed using the Content Analysis technique according to Bardin[13]. Thus, in the pre-analysis phase, the answers were read, so that the meaning and key points of the information could be obtained. In the exploratory phase of the material, the texts were organized by similarity of information. Then, the categorization of the data began, distributed in two pre-established categories: Potentialities and Weaknesses. Finally, the phase of inference and interpretation of the manifest and latent content.

The anonymity and confidentiality of users was ensured, and the data was not disclosed in order to enable their identification, according to Opinion 3,016,801 – CNEP/CEP.

RESULTS AND DISCUSSION
CHARACTERIZATION OF THE PROFILE OF TELECONSULTATIONS

Since the creation, in January 2015, of the Technical Scientific Center for Telehealth Mato Grosso, 10,298 (100%) teleconsultations were carried out by December 2018 by various health professionals. There has been an increase in teleconsultation requests over the years. In 2015, 293 teleconsultations were requested, in 2016 there was an increase in relation to the previous year of 47.4%, totaling 432 teleconsultations. In 2017, the increase compared to the previous year was 244%, totaling 1486. In 2018 there was an increase of 10.5% compared to the previous year, totaling 1626.

Of the total of 10298 requests, 3853 (37%) were requested by doctors. Of these, 3482 (90.37%) are asynchronous requests and 371 (9.63%) are synchronous. Nilson et al.[14] observed in Telessaúde-SC a higher value of synchronous requests (29%) than that found in this research.

Among the medical teleconsultations requested by regional offices, in the period from 2015 to 2018, the health region with the highest number of requests was Sinop with 1087 (28%), followed by Tangará da Serra with 514 (14%), Baixada Cuiabana 479 (12 %), Juína 399 (10%), Água Boa 231 (6%), São Feliz do Araguaia 193 (5%) and the other regions correspond to 2.5% each one.

Regarding teleconsultations by municipality, Nova Mutum stands out, located 242 km away from the north of Cuiabá, with 329 (8.54%) of the requested teleconsultations, followed by Cuiabá with 237 (6.15%) and Tangará da Serra with 232 (6.02%).

As for the profile of medical users, in relation to gender, the highest number of requests was made by females, corresponding to a total of 2297 (59.62%), while males corresponded to 1540 (39.97%), and 0.41 % did not fill in the gender option. There is an inversion of the percentage by gender, as there are more male doctors (60.8%) than female doctors (39.2%) in Mato Grosso[15].

The average age of medical applicants is 35 years, comprising the age group from 24 to 82 years. The average age of doctors working in Brazil is 45.4 years and in the state of Mato Grosso it is 44.1 years[14]. The time of greatest

demand occurred between 8:00 am and 5:00 pm (Graph 2), during office hours, as guided by the guidelines of the Telessaúde Brasil Redes program[16].

DESCRIPTIVE ANALYSIS OF THE TELECONSULTING PROFILE

Of the total number of medical requests made (3853), we found that 73.45% started the evaluation questionnaire made available in the SMART system, a result superior to that found by Nilson et al. (2017) in which it was observed that 44% of users rated the responses received. Values from synchronous teleconsultations were not included, none of them were evaluated by our requesters.

Of the total, 2689 (70%) of users declared themselves very satisfied (50%) or satisfied (20%), 141 (3.5%) rated themselves as indifferent, dissatisfied, or very dissatisfied and 1023 (26.5%) did not respond.

Regarding the assessment of the level of service to the request, 2377 (61.6%) doctors considered that the response fully met, 357 (9.2%) partially met, 54 (1.40%) did not meet and 1065 (27.62%) did not respond. This value was lower than that found by Sarti et al (2013)[10] in which 6% of users did not have their doubts clarified.

As for avoiding referring patients, one of the objectives of the program, 707 (18.35%) stated that they avoided referring the patient and 683 (17.73%) did not. The results indicate that a referral is avoided every two teleconsultations, corroborating the data obtained by Castro Filho[11].

The lower the number of referrals made by the service, the greater its effectiveness. Thus, it is an effective way of verifying or qualifying the resolution of care by monitoring the number of patients referred to more complex levels of the health service[11].

The evaluation of the teleconsultation is not mandatory to complete the request, thus 1023 (73.6%) did not complete the questionnaire and some completed it incompletely.

Of all applicants, 2830 (73.4%) started the evaluation process in the period from 2015 to 2018, and a total of 888, which corresponds to (23%), filled in the space for suggestions/criticisms. It is noticed that a low adherence to the evaluation process, mainly for the discursive question. A suggestive fact to rethink the evaluation process for governance.

Some requesters extrapolated the objective of the gap, exposing their anxieties, doubts, additional patient data and thanks. The field "Suggestions or criticisms" gave the possibility to start an extra dialogue, less formal than a teleconsultation, showing that some applicants want to communicate about what was not asked.

DESCRIPTIVE EVALUATION ANALYSIS

The last item of the evaluation instrument "Suggestions/Criticisms", is a space that allows the requesting doctor to describe their perceptions about the teleconsulting process. After content analysis of the perceptions described, two categories emerged: Strengths and Weaknesses. For the category Strongholds, three subcategories emerged: Increased confidence, Stimulation of study and updating, Overcoming geographic distance. For the Frailties category, four subcategories emerged: Delay in receiving a response, Ineffective response, Difficulties in understanding how the program works and Technical limitations of the program.

Category Potentialities

This category consists of three subcategories in which the statements express the benefits of using the Telessaúde-MT program.

Increase of confidence

The medical professional is constantly faced with challenging and new situations, and it is his responsibility to make decisions that will affect the quality of life of his patients, as explained:

> "Thanks for the reply. I have suffered together with this patient for some time [...]" (M75/2016)

Such responsibility sometimes generates insecurity, interfering with conduct. The answers provided help in the development of actions:

> "Once again, I would like to express my satisfaction with this support, which undoubtedly makes me much more confident..." (M83/2015)

Stimulation and responses generate more conscious and safe decision-making.

> "It clarified my doubts and made me more confident about my decision on the conduct I must take..." (M113/2015)

> "Great, this support in the pipelines in an immediate way for the USF, saves us time and keeps us updated." (M76/2017)

Doctors feel more confident, supported to make decisions about the treatment of acute and complex illnesses[17].

Stimulus to study and update

Over the years, many treatments and forms of diagnosis are updated and for numerous reasons we are unable to keep up. The program generates knowledge update by providing up-to-date and safe references.

> "Hello, thank you very much for the prompt response, the attachments sent to complement the answer were very useful." (M98/2015)

> "Very good answers, all this gives me the courage to study [...] and in the answers I requested, they explained very well..." (M4/2015)

Through continuous learning in teleconsultations, when feeling supported by another professional, the team and the doctor feel more confident to establish resolute conducts[18].

Overcoming geographic distance

Due to the large territorial extension of the state of Mato Grosso, the distance between some municipalities and the capital can reach up to 1,500 km 8. The use of technologies to overcome distances is one of the main pillars of telehealth, in addition to the savings generated by the diagnosis carried out in a decentralized, increases problem-solving capacity, reduces the number of referrals and favors faster access to specialists, reducing the waiting list[4].

> "The need for teleconsultation and due to the distance of 1,200 km from a center to perform a biopsy [...]" (M110/2018)

> "I would like to thank you for the brilliant and enlightening explanation to have specialist professionals supporting and guiding conducts, especially in more distant places and with the population with few resources, it changes the patient's life and educates and qualifies professionals like me, and an act of great charity and deserves all my respect and gratitude." (M40/2016)

Teleconsulting is also a form of social interaction, it generates new experiences that, when shared, improve team performance and strengthen the professional bond, reducing the feeling of isolation, which can contribute to reducing professional turnover[19].

Weaknesses Category

This category is composed of four subcategories that present elements that need to be considered in the search for improvements in the entire teleconsulting system.

Delay in receiving response

The delay in receiving a response can be a definitive factor for the PHC's resolution and for the professional to use the platform again.

> "Elapsed time for response too long." (M334/2017)

> "We were unable to avoid the referral as it took a while to get the answer." (M 79/2018)

The response to any request must be made within 72 hours[6,7,]. The delay in response is a factor that can delay the diagnosis and treatment of the patient[20].

Not effective response

According to the guidelines provided to teleconsultants. the answers must be direct and clear, with appropriate language[20],however, several professionals did not feel that their doubts had been fully resolved:

> "Good afternoon, I think there was an error in the answer, it must have addressed the wrong person." (M101/2015)

> "I was guided to something that I don't have available in my municipality." (M79/2017)

> "The reality of assistance in the municipality does not match the diagnostic investigation situation [...]" (M124/2017)

The manual for teleconsultation response guidelines developed by the Ministry of Health guides the presentation of concrete examples of activities that can be developed within the requester's context. Although the literature states that teleconsultants receive training so that the answers are adapted to the reality of PHC[21],[22], there is a need for constant updating regarding regional asymmetries and their development.

Difficulties in understanding how the program works

Training and familiarity with computer systems is an independent factor that interferes with the use of telehealth[3] and reinforces the need for health management sectors to be better equipped with professionals in the computing area for the improvement and tenacity of training processes and specialized support. Some users showed a lack of knowledge about how to access the program's features.

> "Hello, [...] I hadn't seen it in the inbox, but I clicked above my request number so that's when I saw the answers..." (M2/2015)

> "How do I resend the requested data, that is, answer about the exams?" (M93/2018)

Several professionals used the suggestion/criticism space to add extra data about patients or feedback, demonstrating a lack of understanding of the system's functionalities and the teleconsulting protocol.

> "I forgot to send the husband's exams, my fault, but the husband has a normal sperm count, all exams..." (M104/2015)

Technical limitations of the program

In several regions of the state, internet access prevents video teleconsulting from being used.

> "Thank you very much for teleconsulting by video, I don't think it's effective, the internet is very weak, but this way it's getting better. Good night" (M1/2016)

The lack of IT infrastructure in PHC, as well as internet access, persist as limiting factors for requesting teleconsultations[22] .

FINAL CONSIDERATIONS

The services provided by Telessaúde MT are meeting the program's objectives to qualify and increase the resolution of primary care, according to all the data presented. By guaranteeing specialized support for clinical decisions, it helps to keep health professionals in places with greater difficulty in accessing specialists, as it allows them not to feel isolated and helpless.

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Telessaúde-MT users are satisfied with the program. Continuing education carried out in each teleconsultation really encourages the professional to keep up to date and constitutes an essential subsidy to support medical autonomy and their capacity to solve PHC. There is still a low adherence of users in the evaluation of teleconsultation, a fact that suggests the need to sensitize users about the importance of the evaluation process and to search for evaluation models that may have greater adherence, which will reflect an improvement in governance.

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