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"ORIENTA + COVID" CALL CENTER SERVICE IN THE XINGU-PA REGION"

"ORIENTA + COVID" SERVIÇO DE TELEATENDIMENTO NA REGIÃO DO XINGU-PA"

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ABSTRACT
Worldwide, guidelines have been developed that indicate the adoption of measures, which can guide and assist the population in times of pandemic. In this sense, several cities have incorporated the practice of health call centers with qualified specialists to provide correct information about the disease, creating remote channels to make calls such as telephones, video calls and applications that do not require the crowding of people at health units. The objective of the work was to describe the "Orienta+COVID" call center service installed in the Xingu-PA region, Brazil. The study was carried out in the Xingu region, Pará, Brazil. The reports of the attendants participating in the project were collected and the attendance registration report, which took place from May 25th to June 30th, 2020, was analyzed. A total of 1210 visits were made in the period analyzed through 60 attendants who took turns on duty. During tele orientation, health professionals collected patient data, their complaints and doubts to determine, through the classification of symptoms, what would be the guidelines to be passed. The call center performed by health professionals during the project was essential to answer patients' doubts as well as being able to better guide them on how to proceed in suspected or confirmed cases of the new coronavirus and thus contribute to reducing the demand for urgent and emergency services.

KEYWORDS: Telehealth. Pandemic. Health Education. Telemedicine

RESUMO
Em todo o mundo, foram desenvolvidas diretrizes que indicam a adoção de medidas que possam orientar e auxiliar a população em tempos de pandemia. Nesse sentido, diversos municípios têm incorporado a prática de centrais de atendimento em saúde com especialistas qualificados para prestar informações corretas sobre a doença, criando canais remotos para realização de ligações como telefones, videochamadas e aplicativos que não exigem aglomeração de pessoas nas unidades de saúde. O objetivo do trabalho foi descrever a experiência do serviço de teleatendimento "Orienta+COVID", instalado na região do Xingu-PA, Brasil. O estudo foi realizado na região do Xingu, Pará, Brasil. Foram coletados os relatos dos atendentes participantes do projeto, bem como analisado o relatório de registro dos atendimentos, ocorridos no período de 25 de maio a 30 de junho de 2020. Foram realizados 1210 atendimentos no período analisado, por meio de 60 atendentes que se revezavam em plantões. Durante a teleorientação, os profissionais de saúde coletaram os dados dos

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pacientes, suas queixas e dúvidas para determinar, através da classificação dos sintomas, quais seriam as orientações a serem passadas. O teleatendimento realizado pelos profissionais de saúde durante o projeto foi essencial para sanar as dúvidas dos pacientes, no sentido de orientá-los sobre como proceder em casos suspeitos ou confirmados da COVID-19 e assim contribuir para a redução da procura por serviços de urgência e emergência.

PALAVRAS-CHAVE: Telessaúde. Pandemia. Educação em saúde. Telemedicina

INTRODUCTION

The first diagnosed cases of the new Coronavirus disease (COVID-19) were observed in December 2019 in Hubei province (China), more precisely in a group of patients admitted with a diagnosis of pneumonia due to unknown etiology to hospitals in the city of Wuhan[1].

Initially, the outbreak of a Severe Acute Respiratory Syndrome due to Coronavirus type 2 (SARS-CoV-2) was confined to the Chinese province, but spread quickly to several countries, causing a global pandemic, enacted in March 2020[2,3].

Faced with this new world reality, several doubts started to arise among health professionals about how to proceed with health guidance and education at times like this, because it is a different scenario from the usual one, marked not only by the advance of the virus , but also the difficulty observed in the population to adopt simple measures to prevent and combat the disease, such as wearing masks and hand hygiene[4].

Thus, there was a need for decision making and the establishment of urgent strategies to, at least, reduce the impacts arising from this new disease, which has been producing high numbers of hospitalizations in Intensive Care Units (ICU) and worrying morbidity and mortality rates[5,6].

Several strategies have been adopted globally, such as: social isolation, installation of field hospitals, application of serological tests to detect the presence of antibodies of the immunoglobulin class - IgA, IgM and IgG, adaptation of protocols, health education and support actions for city or country populations, with or without comorbidities and with or without social vulnerabilities, aiming to contain the increase in cases and the mortality rate[7].

For this reason, health education and communication attitudes specific to this clash are uniquely linked to together reach the largest number of people. Worldwide, guidelines have been developed that indicate the adoption of measures, which can guide and assist the population in times of pandemic and one of these guidelines seeks to provide guidance and care by remote means, by instant messaging and free telephone service, for example. In addition to these, telemarketing and telemedicine strategies were adopted with specialists qualified to provide correct information about this disease[8].

Several cities have incorporated the practice of health call centers by creating remote channels to make calls such as telephone, video calls and applications that do not require the crowding of people at health units. The main guidelines given by health professionals in the call center are related to

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education strategies and adequate access to health, planned according to the geographic characteristics of each region, with the reality of the population of each city, each family and each individual[9].

In the city of Altamira, state of Pará, in northern Brazil, the call center strategy was also adopted in order to contribute to the health orientation of its residents in relation to Covid-19. A few months into the experience, a question arose: how was this service being carried out in the municipality? Given the above, the present study aimed to describe the work experience of the "Orienta + Covid-19" call center program, for the Xingu Paraense region.

MATERIALS AND METHODS

This is a descriptive study, in the form of an experience report, experienced by health professionals, members of the Project called "Call Center" Orienta + COVID", from the Faculty of Medicine of the Federal University of Pará, Altamira Campus in partnership with the University of the State of Pará and the University State of Campinas.

The study was carried out in the city of Altamira, a Brazilian city located in the State of Pará, specifically in the Xingu region, with a population estimated by the Brazilian Institute of Geography and Statistics[10] of approximately 115,969 thousand inhabitants (Figure 1).

Figure 1. Location of the city of Altamira, Pará, Brazil.



Source: Prepared by the authors with data extracted from Google Images.

In preparing this text, the authors followed the set of guidelines from the Pontifical Catholic University of Minas Gerais[11], specifically with regard to the Standards for the Preparation of Reflective

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Experience Reports which provides definition of the problem, description of the facts occurred / observed, followed by reflection on the results and possible score of improvements or gaps observed.

Data collection was carried out based on the reports of the attendants, participants in the "Orienta + COVID" Teleservice project, with emphasis on the description of the work routines in the service. The report of attendance registration, which took place from May 25th to June 30th, 2020, was also analyzed.

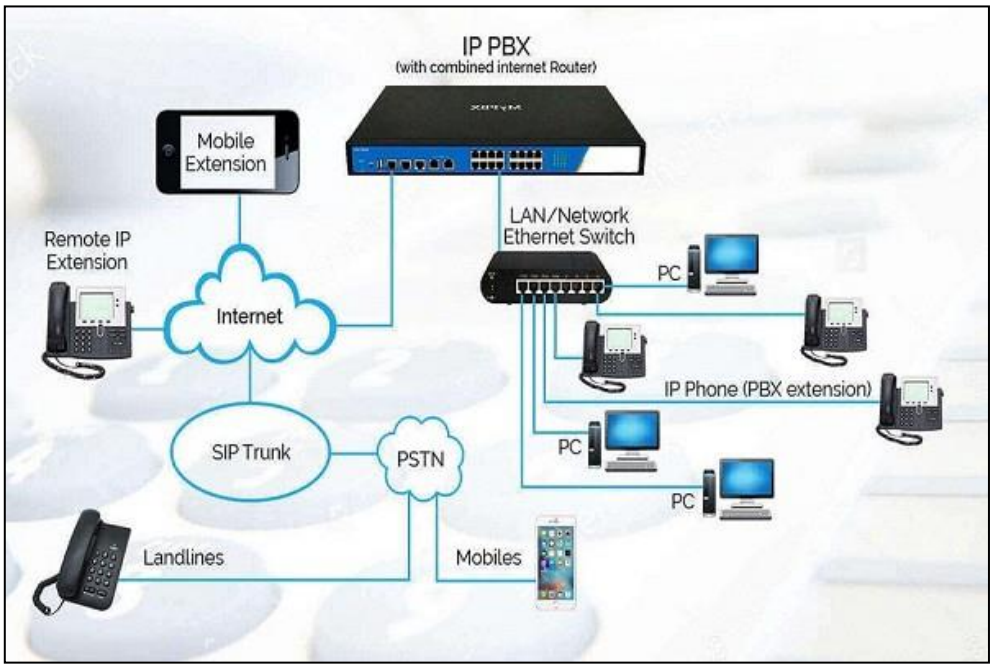
The variables studied were number of visits, technologies used and work process.

To implement the Teleorientation Service, a technological tool was used, consisting of software, hardware, and the procedure for registering the orientations carried out. For the purpose of organizing the methodology, we classify the activities as: Computational Infrastructure Management, Shifts Management, Service Management and Data Analysis Service Management. For all these activities, there was a technological platform supporting the necessary actions to carry out the service.

In the Computational Infrastructure Management, two types of technologies were used: Web Service and Telephone Service using the voice traffic transmission technique called "Voice over Internet Protocol" (VoIP). This service was contracted from a provider that rents its infrastructure and offers it in the "Communication Platform as a Service" (CPaaS) modality. The definition of the use of the VoIP service was fundamental to implement the essential requirements for the answering service, which are: protection of the attendants' privacy, automatic call redirection, identification of incoming calls, variable demand for computational resources, encrypted communication and personalization capabilities through a computer interface that defines the interaction between programs (Application Programming Interface - API), virtual phone resources, as illustrated in figure 2 below.

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Figure 2. VoIP architecture used in the telephone service.



Source: Alcatel - Rainbow.

The requester - anyone from the population - makes a telephone call to a key number that has been widely broadcasted, and the VoIP system performs balanced redirection to the devices of the students on duty, which is supported by medical professors from UFPA and UEPA available throughout the shift period. Another contact option is through the Web when accessing the project's website, where there is a Landing Page with the implementation of a service Chatbot.

For the Management of the Duty Scale, we use a free application called "PLANTÃO ATIVO" which is available for Android Operating System, IOS and also in the web version. The choice of this solution was due to the fact that it met the requirements of the project: free of charge, access by various devices, such as cell phones, tablets and desktops. Dynamic weekly scales were organized to address fluctuations in the number of calls. In this way, it was possible to prevent the scale from becoming overloaded. To adjust the resources, at the end of each week, we evaluated the need to adjust the number of volunteers for each shift of the coming week, considering the following requirements: number of calls made during the week, disclosure in the media, absence of attendants. Based on this information, the number of volunteers for each shift and the availability of vacancies for the following week are defined. Appointment of on-call staff and control are carried out during the weekend so that the first shift on Monday is already possible to operationalize the service. Volunteers can declare interest in one of the vacancies. The manager and assistant receive e-mails with the interested parties and designate the on-call staff for each of the shifts. After the assignment, e-mails are sent confirming the

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shift. Each duty officer was instructed to install the free GS WAVE application on his device, where he registered his account which he activated while on duty.

For Attendance Management, the attendant uses the COVID-19 Follow-up System Portal to record all appointments in an electronic form, which contains patient identification data, signs, symptoms and risk factors, as established by the guidelines of the Ministry of Health, Federal Council of Medicine and the National Supplementary Health Agency of Brazil. Every two hours, between three and six attendants were on duty. The patient's access to the teleorientation occurred through a free telephone call (0800) sent by the GS WAVE application (figure 3).

Figure 3. Illustration of the process of the operating systems of the “Orienta + COVID” Call Center Project.



Source: Prepared by the authors with data extracted from the Manual of Technical Guidelines for the attendants of the “Orienta + Covid” Project at the Federal University of Pará, 2020.

The visits were carried out from Monday to Sunday, from 8 AM to 8 PM by a group of volunteers composed of duly trained health professionals who used the COVID-19 Clinical Management Protocol proposed by the Ministry of Health (MS), proceeding with the risk classification and service priorities, through the Standard Operating Procedure (POP) “Orienta + Covid” to follow up the calls. The following steps have been established:

1- The attendant answered the call on his extension and used the expression: 'Orient Covid, how can I help you?'

2- The collection of patient identification information started and registered in the COVID-19 monitoring system.

3- The attendant questioned the individual what his symptoms were and performed the risk classification and care priorities.

4- According to the classification, the attendant performed orientations and referred the patient for monitoring and / or medical care in Basic Health Units and or Reference Unit for COVID-19 and / or Emergency Care Unit, as shown in the Chart 1.

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Chart 1. Identification of the stage of the disease and the respective guidelines for the patient.

MILD SYMPTOMS	MODERATE SYMPTOMS	SEVERE SYMPTOMS
Smell loss Taste loss Coryza Diarrhea Abdominal pain Fever Myalgia Cough Fatigue Headache	Persistent cough + daily persistent fever (or) Persistent cough + progressive worsening of another symptom related to Covid-19. (or) Difficulty breathing even at rest or in small activities. (or) The presence of one of the above symptoms + presence of a risk factor	Dyspnea and / or Hypotension Change of consciousness. Respiratory rate (RR)> 22rpm Systolic Blood Pressure (SBP) <100 mmHg Oxygen Saturation <92%
GUIDANCE	**GUIDANCE**	**GUIDANCE**
✔ General health care and isolation ✔ Register for monitoring by the Basic Health Unit (BHU) closest to the patient's home	✔ Forward to medical care at the BHU of reference for COVID-19 (Monday to Saturday from 7 am to 7 pm) ✔ Register for monitoring by the UBS closest to the patient's home or in the emergency room. ✔ Guiding social isolation ✔ Guide wearing a mask when going out for care	✔ Direct the mobile emergency service to call 192 (US 911) ✔ Maintain social isolation in a separate room whenever possible

Source: Prepared by the authors with data extracted from the Manual of Technical Guidelines for the attendants of the "Orienta + Covid" Project at the Federal University of Pará, 2020.

When necessary, health professionals recommended in which service they could perform the rapid test (especially when dealing with individuals at risk or health professionals, public safety and their family members who lived in the same household). The tests were carried out mainly in the Basic Health Units and Hospitals in the region, as well as in private laboratories. All orientations were indicated by the health professional after evaluation and questioning of all symptoms and the stage in which the disease was.

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The Management of the Data Analysis Service had the application of tools for correlating variables and creating hypotheses. The applied methodology involved statistical analysis, such as frequency distributions, correlations and graphical representations, measures of dispersion and measures of central tendency. This analysis seeks to understand the meaning of the data collected and also aims to present in a systematic way with division by categories, word count or terms contained in the responses. As a result, it was possible to identify points of improvement in service, better knowledge of applicants, generation of project intelligence for decision-making, promoting innovation, as well as gaining insights on the captured outcomes.

RESULTS

Through the study it was found that the project served 1,210 people in the period from May 25th to June 30th, 2020, with the participation of 60 attendants, who worked alternating on duty. This coping group allowed, on average, more than 08 patients to receive information about COVID-19, avoiding commuting to health services, per hour on each day of the study sample.

The project started its activities by publicizing the call center service to residents of the city of Altamira. The disclosure was made on television, radio and digital materials, socialized on social networks and WhatsApp groups. In view of the above, the scope of the project has crossed the borders of the city, serving cities in the Xingu region.

The diversity of electronic media is represented here by one of the models that informs the name of the project, the telephone number through which calls can be answered and the opening hours (Figure 4).

Figure 4. Informative digital material about the "Orienta + COVID" call center project. Altamira-PA, 2020.



Source: Prepared by the authors.

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In order for the call center to develop properly, all volunteer attendants who participated in the project were trained on COVID-19 using the video communication service - Google Meet and received materials from the idealizing group to read about the project “Orienta + COVID” Nationwide and Standard Operating Procedure (SOP) of the work to be performed.

DISCUSSION

In times of the COVID-19 pandemic, teleservice was adopted in several Brazilian locations to assist mainly in carrying out three practices: tele-guidance, telemonitoring and teleconsultation[12].

In the present study, only teleorientation was adopted, aiming at solving the population's doubts and guiding as to the need to go to a health unit or not, avoiding agglomerations, in addition to classifying patients according to mild, moderate and severe symptoms. and refer them to medical care.

Greenhalgh[13] reveal that teleorientation is a central strategy for controlling disease outbreaks through "direct screening", classifying patients before they reach health services.

In addition, for Caetano[7], the call center service is able to provide remote health care, thus reducing the risks of spreading the disease, whether on the way to the hospital or in the doctor-patient relationship. Likewise, it contributes to the appropriate use of resources for care, allowing the patient to have access to appropriate and necessary treatment[14-16].

The call center in Brazil takes place according to Ordinance GM MS No. 2.546, of October 27, 2011, defining as a registered consultation and the interaction between workers, professionals, and managers in the health area, through telecommunication instruments, such as digital platforms and telephone, in order to guide and clarify doubts about clinical procedures, health actions and issues related to the work process[17].

The “Orienta + COVID” call center service followed all guidelines and resolutions of the Ministry of Health, the National Health Agency, several Federal Councils of the various Health Professionals and the Senate, which approved the telemedicine / call center service in Brazil, as being an important resource for care and health promotion[12].

To achieve the proposed objectives, health professionals were properly trained and qualified in terms of knowledge about the new coronavirus, patient care approach and digital technologies used for the operation of the Call Center service. To provide adequate support in times of pandemic when isolation or social detachment is necessary, only digital technologies have been adopted for patient care.

The study by Oshida et al.[18] shows that the use of APPs, help in the dissemination of guidelines about the disease to the population, as well as in the adequate guidance to users who presented moderate to severe symptoms, allowing the performance of screening, analysis of symptoms and referral to medical care, when necessary.

Amancio et al.[9] observed that the service provided through the call center, WhatsApp and website services is important to inform and resolve the population's doubts about COVID-19 and the

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functioning of the health system. In addition, the call center proved to be effective in preventing the crowding of users in health units during the pandemic, in line with WHO's recommendations for social isolation. For these same authors, the call center in health can be defined as the use of information and communication technologies to assist in the preliminary orientations in health care.

Considering aspects related to the clinical history of COVID-19, the risk classification and choice of care priorities even at a distance may have been responsible for the correct targeting of critically ill patients, reducing the number of preventable deaths. As well as assistance in cases of general virus symptoms, or other non-specific symptoms, which were screened for monitoring by the Family Health Strategy[9].

The evaluation of these authors allowed for a timely reflection on the context of confrontation with COVID-19 by the team of the Call Center “Orienta + COVID”. Difficulties in accessing Primary Care, which are quite common in the Xingu region and throughout the State of Pará, have increased in the face of protocols of social distance. Likewise, specialized services required adjustments to the flow of care. The time lag for these adjustments could have culminated in human losses or consequences that were certainly reduced as the adoption of this technology allowed to assist a large portion of the population, including people in situations of increased vulnerability by the pandemic.

In the context of the city of Altamira and region, the choice for communication through teleservice was made by analyzing the population's adhesion to this means of communication with other essential services, even at times not associated with public calamities. At the time reported, perhaps adherence to other technologies can be considered a barrier and not a bridge, as was intended.

It is appropriate to state that the call center is not the only useful tool in remote service contexts. Other technological devices such as voice and video communicators, cardiorespiratory rate meters, oxygenation level and blood pressure, among others with or without connection to internet networks, can be used for remote monitoring of patients or for communication between assistance and care staff. However, the high cost and poor availability of resources still make it less accessible or unviable for use on a large scale. In this sense, even in a study on technological advances in monitoring patients affected by COVID-19, Coelho et. at.[19] argues that developers need to "rethink the production of devices and platforms capable of making it possible to carry out mass monitoring and control procedures, with efficiency and practicality".

It is noteworthy that the remote monitoring of patients with infectious or contagious conditions is a reality in other populations. In an integrative review conducted by Oliveira et al.[20], the authors present the satisfactory results of patients' adherence to digital blood glucose measurement technologies, as well as food memorial record. The sharing of data from these devices proved to be able to involve patients, family members and the care network in the control of the disease, as well as triggering alerts to worsen the condition, providing appropriate interventions at the right time and in places prepared to reduce complications. In the future, other health conditions may be monitored and the use of predictive technologies will considerably decrease the negative impacts of crises or accidents.

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Returning to the context of COVID-19, the study by Araújo and Arruda[21] is cited in which the call center protocol was characterized by the non-identification of recurrent symptoms of the disease. When the individual informed the attendant of the presence of suggestive symptoms, the health professional would schedule call centers to monitor the patient's evolution, in case of continuous characteristic symptoms, face-to-face care at the nearest Health Unit was indicated.

For Webster[22] and Greenhalgh et al.[23] remote care can be used to keep patients out of hospitals, referring only the most serious cases to overly complex units, allowing time to be weighed and avoiding overloading services. The authors also report that the use of virtual contacts or telephony-based software that detects and records patient data such as symptoms or temperature, may prevent unnecessary hospital visits for patients with mild symptoms. In this study, patients with a positive test or clinically suggestive symptoms that were classified as asymptomatic or with mild / moderate symptoms were instructed to remain in isolation at home and practice basic hygiene care.

It is important to highlight that the aforementioned studies help with the prospect of the call center acting positively in the qualification of patients' access to health services at the appropriate times, through the risk classification, the integration with the regulatory centers and the qualification of primary care. The qualification process, it is worth mentioning, should also have as one of its intended results the improvement in referrals to appropriate specialized health services[23].

CONCLUSION

The use of digital healthcare technologies is already used for the remote monitoring of patients in chronic conditions with the potential to worsen or in infectious conditions that demand isolation or social distance. With the COVID-19 pandemic, several services were adapted or created for tele-orientation, telemonitoring and teleconsultation of symptomatic patients or in search of information about the disease.

This article presented how the service and its activities routines were established. which were defined in accordance with national legislation and best practices of similar services. In addition, it presented as a partial result between the service visits the 1,210 patients heard in just six days of collection observation, demonstrating the ability to reach initiatives of the same nature.

The “Orienta + COVID” Tele-Service Project brought benefits to the population that obtained guidance based on scientific evidence and at the time of their need, without having to wait for a later appointment. Another point worth mentioning is the fact that the telescreening carried out contributes to reducing the demand for urgent and emergency services. In the current context, this service helps to avoid overloading the health system, as it refers the patient according to the clinical condition to the most appropriate location. Volunteers are also benefited in this action, as they can make anamnesis, discuss cases and conduct a patient even with the interruption of face-to-face classes (CAETANO). Therefore, this project assists the various participants in the value chain: the population with scientifically

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verified information, the students who had the opportunity to continue their academic education and the health system that avoided the presence of patients with mild symptoms.

During the project, we observed that constant training of attendants on the use of Apps is very important, aiming to improve the use of certain tools, the efficiency of services and, consequently, the increase in the number of visits to patients (service users).

From the results of the present work and the discussion promoted with the other reports presented, it can be seen that the practice of call center is useful for combating disinformation and the risks arising in the context of COVID-19, and should be strengthened, encouraged and even expanded to face complications or other diseases and conditions.

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