



## EVALUATION OF TELEPHONE CONSULTATION IN BREAST CANCER PATIENTS DURING THE COVID-19 LOCKDOWN IN URUGUAY

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### ABSTRACT

**Introduction:** In March 2020, a health emergency was decreed due to COVID-19 and this produced changes in the organization of health services. One of the objectives of the reorganization that took place was a reduction in face-to-face (FTF) consultations, and the promotion of telephone consultations (TC). Objective: Evaluate the effectiveness of TC and the level of satisfaction of patients treated for breast cancer in Uruguay during the COVID health emergency. **Materials and Methods:** Observational, cross-sectional study, in which a telephone survey was conducted to assess the effectiveness of TC and the level of patient satisfaction it achieved. **Results:** 109 patients were surveyed, the median age was 63.7 years old, 64% were receiving adjuvant treatment. In terms of TC effectiveness, 71.5% of consultations were resolved by telephone; 83.3% of patients preferred to consult by telephone; 99% felt that the time spent was sufficient and that the timing of contact was adequate. Responses showed a high degree of satisfaction with the care received, with 78% of respondents saying they were very satisfied (n=85, CI=68.8%-85.1%) and 21.1% (n=23, CI=14.1%-30.2%) saying they were satisfied. Medical care met the expectations of all patients, 88% believed that once normal services were restored, TC was an option for their situation. **Conclusion:** TC was rated with a high degree of satisfaction and allowed care to be maintained during the health emergency. Our results show that it is a useful and valuable tool in clinical practice during periods of health emergency.

**KEYWORDS :** COVID-19; SARS-CoV-2; Breast cancer; Patient satisfaction; Telemedicine

### INTRODUCTION:

The implementation of telemedicine shortens travel distance, facilitates access to the health system, improves the quality of care and reduces costs <sup>(1)</sup>. Telemedicine is a useful tool and non-face-to-face care may work better for many patients and for some doctors <sup>(2)</sup>. It is known to be useful in a variety of situations: natural disasters <sup>(3)</sup>, in the care of elderly patients <sup>(4)</sup>, as well as in reaching remote rural areas <sup>(5)</sup>.

In March 2020, the Uruguayan government decreed a health emergency due to COVID-19, which led to significant changes in the organisation of health services. One of the objectives of the reorganisation was to minimise face-to-face (FTF) consultations and promote telephone consultations (TC) as an alternative for patient care. The purpose of a TC is to protect high-risk persons (the elderly and persons with concomitant health conditions) by reducing their exposure in hospitals and facilities with a potential high infectious burden.

The COVID-19 pandemic led to the promotion of the use of TC nationally and internationally; the effectiveness of TC has been evaluated in a variety of care settings<sup>(6-11)</sup>. However, there is little data on patient satisfaction with TC and the efficacy of this method in Uruguay; the aim of our study was to obtain results on the efficacy of TC and the level of patient satisfaction with it.

#### OBJECTIVE:

To evaluate the resolution capacity of TC and the level of satisfaction with it for patients treated for breast cancer (BC) in the Oncology Services of the Departmental Hospital of Soriano and the Hospital de Clínicas during the COVID health alert between 13 March 2020 and 13 March 2022.

#### MATERIALS AND METHODS:

An observational, prospective, cross-sectional study, in which a telephone survey was conducted to assess the effectiveness of TC and the level of patient satisfaction it achieved among patients diagnosed with BC in the aforementioned period.

Patients seen in both services in the above period were telephoned and given a brief explanation of what the study was about, before being invited to participate in the study and asked for their verbal consent.

From their clinical history, data were obtained on: the treatment received at the time the health emergency was declared (chemotherapy (CT), targeted therapies and/or hormone therapy (HT)), and the reason for consultation.

To assess the effectiveness of the TC, we examined the number of consultations that resolved the issue (where no face-to-face consultation was necessary), number of consultations that partially resolved the issue (study and re-evaluation was necessary, the patient had several TCs in the period, no face-to-face consultation was necessary) and the number of consultations which did not resolve the issue (FTF consultation was necessary).

Variables that could affect patients' level of satisfaction with TC were investigated: age, origin, marital status, perception of health status, interest in avoiding FTF consultation and degree of concern about the health emergency.

#### Statistical Analysis:

Quantitative variables were described: median and range, as well as qualitative variables: absolute and relative frequencies. Comparison of quantitative variables of independent data was carried out: Mann-Whitney U test and study of the independence of qualitative variables: Pearson correlation coefficient. Significant associations:  $p < 0.05$ .

#### RESULTS:

A total of 109 female patients were included, 60% ( $n=65$ ) were attended at the Departmental Hospital of Soriano and 40% ( $n=44$ ) at the Hospital de Clínicas. The median age of the patients was 64 years old (range: 36-90 years old). Regarding the AJCC TNM stage: 33% of tumours were SI ( $n=36$ ), 30% ( $n=33$ ) SII, 19.2% ( $n=21$ ) SIII and 16% ( $n=17$ ) SIV. As for the biological subtype: 78.9% of tumours ( $n=86$ ) were luminal subtype, 15.6% ( $n=7$ ) HER2 (+), and 5.5% ( $n=6$ ) triple negative.

Seventy percent of the sample ( $n=76$ ) had easy access to consultation in the Oncology Department. Sixty-seven percent ( $n=73$ ) were married or living with a partner; 16.6% ( $n=18$ ) were divorced or separated, 11% ( $n=12$ ) widowed and 5.5% ( $n=6$ ) single; the majority (84.4%,  $n=92$ ) lived with other people.

In relation to health status, the majority rated their health status as good or excellent: 89%; 97 patients (48.6%) rated it as

good and 44 patients (40.4%) as excellent. Only 11% categorised their health status as fair (11 patients (10 %), or poor (1 patient).

In the course of the health emergency, 50.4% were very or somewhat worried about it ( $n=38$  and 17 respectively) and 87% of these patients ( $n=48$ ) avoided going to the doctor's surgery. Furthermore, 49.6% of the patients were somewhat, not very or not at all worried ( $n=27, 16$  and 11 respectively); and 66% of these patients ( $n=36$ ) avoided going to the doctor's office.

Of those included, 64.2% ( $n=70$ ) received adjuvant treatment (53.1% with HT; 11% with CT and 5.5% with anti-HER2 therapy); 17.4% ( $n=19$ ) received palliative treatment (11% with CT, 14.6% with HT and 3.6% with anti-HER2) and 18.3% ( $n=20$ ) were under clinical monitoring.

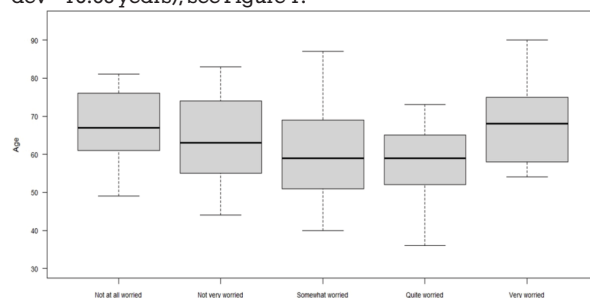
Regarding the reason for consultation, 74.3% ( $n=81$ ) consulted for continuity of treatment and monitoring; 18.3% ( $n=20$ ) only for monitoring and 8.2% ( $n=9$ ) for evaluation of studies.

Regarding the effectiveness of TC, 71.5% ( $n=78$ ) of the consultations were resolved by telephone (i.e., it was not necessary for the patient to consult in person). Twelve consultations (11%) were partially resolved (i.e., study and reassessment were necessary, so the patient had several TCs in the period) and 14 consultations (12.8%) could not be resolved by telephone (i.e., a FTF consultation was necessary). It should be noted that the 14 consultations that could not be resolved by telephone were attended by patients receiving systemic treatment with chemotherapy  $\pm$  targeted anti-HER2 therapies (nine with palliative criteria and the rest with adjuvant or neoadjuvant criteria).

A significant proportion of patients (83.3%, 93 patients) chose to have TC and only 14.7% (16 patients) would have preferred to have face-to-face consultations. Regarding TC, most of the patients believe that the timing of their call was appropriate ( $n=108, 99\%$ ), they were able to carry it out without help ( $n=99, 90.8\%$ ) and they think that sufficient time was spent on solving their problem ( $n=108, 99\%$ ).

The responses reveal a high degree of patient satisfaction with the overall care received, with 78% of respondents saying they were very satisfied ( $n=85, CI=68.8\%-85.1\%$ ) and 21.1% ( $n=23, CI=14.1\%-30.2\%$ ) saying they were satisfied.

A statistically significant association was found between age and level of concern at the onset of the health emergency ( $p=0.007$ ). The mean age was higher among those who said they were very worried (mean 67.47 years,  $dev=9.07$ ) compared to those who were quite worried (mean 57.70,  $dev=10.69$  years), see Figure 1.



**Figure 1.** Age distribution by degree of concern at the onset of the COVID-19 health emergency according to 109 survey respondents

Of the 109 respondents, a total of 9 patients (8.2%) felt that their cancer disease worsened during the COVID epidemic.

The majority of respondents (76.2%, n=83) felt that the medical team provided very clear information (CI=66.9%-83.6%) and 25 respondents felt it was clear (22.9%, CI=15.7%-32.25). Of the group of patients who rated the clarity of the information provided as completely clear, 70.24% wanted to avoid going to the consultation (95% CI 59.13;79.47) and 43.37% expressed being quite or very worried (95% CI 32.68;45.9). The assessment of the clarity of the information received was found to be associated with the perception of one's own state of health ( $p=0.04$ ) and the degree of concern at the onset of the health emergency. The clarity of information was higher among those who perceived themselves to be in excellent health and those who were somewhat concerned about their health status. There was no significant relationship with the rest of the variables analysed.

The assessment of overall satisfaction with TC was found to be associated with interest in avoiding attending the consultation ( $p=0.008$ ) and with the degree of concern at the onset of the COVID-19 health emergency. There was no association with the rest of the variables analysed.

The medical care received met the expectations of all patients.

Of the patients included in the study, 88% (n=96) think that after the pandemic is over, TC may continue to be an appropriate care strategy for their situation. Among those who consider that TC is not an alternative to incorporate into post-pandemic care, 84.6% (n=11, CI=53.7-97.2%) correspond to patients who would have preferred to have the consultation in person and 46% (n=6, CI=20.4-73.8%) correspond to those who perceived a progression in their oncological disease during the pandemic ( $p<0.001$ ).

## DISCUSSION

In recent years, it has become very important to assess user satisfaction with health services as it is significantly associated with health outcomes. Patient satisfaction has been shown to play an important role in maintaining the use of health services, in the continuity of the doctor-patient relationship, in adherence to prescribed treatments and to the recommendations of health professionals<sup>(12)</sup>.

Furthermore, several studies show that cancer patients with active disease are at higher risk of lethal complications from COVID-19 than others, especially those receiving myeloablative treatment<sup>(13-16)</sup>. This is why cancer patients are categorised as a high-risk group in the current pandemic and therefore among the most appropriate population to receive TC during the pandemic.

There are currently a number of studies on the COVID-19 pandemic, but few assess the efficacy of TC and the level of patient satisfaction in patients with BC. Our team previously reported data on patient satisfaction with TC and the efficacy of this method at the national level, but only a small number of patients were included, from the capital city of the country and attended only at the Hospital de Clínicas. The present study includes a larger number of patients, attended in the capital and in the interior of the country, which will allow a better evaluation of the impact of TC on care and its capacity to respond.

Our results reveal a high level of satisfaction with TC, with 78% of respondents saying they were very satisfied (CI=68.8%-85.1%), 21.1% (CI=14.1%-30.2%) said they were satisfied, and 88% thought it was an option to be considered for incorporation into routine clinical practice.

A statistical association was found between the level of satisfaction and the degree of concern and interest in avoiding a FTF consultation. Although the ratings were generally positive, the highest satisfaction scores were given

by patients with the highest degree of concern and the greatest interest in avoiding the doctor's surgery. Bearing in mind that the health alert may have caused difficulties in accessing medical consultation, which could be responsible for the high acceptance of TC, and given that the concern related to the health emergency had an impact on the degree of satisfaction perceived by patients, we believe it is appropriate to repeat the survey once the health emergency is concluded.

There was also a statistical association between the degree of clarity of the information provided and the degree of concern and interest in avoiding the consultation, with the information being perceived more clearly for patients with a higher degree of concern and greater interest in avoiding the consultation.

When interpreting our results, we have to consider that given that the time between the TC and the survey was more than 3 months, the patient might not have full memory of the data requested, which could be a limitation to consider in our study.

One bias to consider is attentional bias, which occurs when study participants change their behaviour when they know they are being studied. However, the doctors who conducted the TCs were unaware that they were going to be evaluated at the time of the study, as the study was designed after the fact. We therefore consider that there is no bias in the following questions: 'Do you think that the time taken to treat your problem was sufficient?' and 'Was the medical care received in accordance with your expectations?'; nor in the positive scores received by the questions on the evaluation of the satisfaction of the TC from 1 to 5 (1 is dissatisfied and 5 is very satisfied) and the clarity of the information received from the doctor who attended you (1 is not at all clear and 5 is very clear).

In terms of TC effectiveness, the resolution rate was high, with 77.5% of consultations being resolved by telephone. We see TC as an instrument that will make it possible to improve the health system. The development and implementation of telecommunication should be considered a priority for the health system as telemedicine provides an excellent opportunity to optimise the doctor-patient relationship and care without compromising the quality of patient care.

Our results reveal that TC is an efficient tool in clinical practice in the face of a health emergency. Its effectiveness and acceptability to users provide an opportunity to optimise the affordability of cancer care and an opportunity for more inclusive future practices. However, it is necessary to recall the need to reassess its use once the health alert has been lifted. We believe that TC is a promising form of care, with a high level of resolution, making it a valid option for certain patients.

Our results show that patients value their doctor's telephone contact, care and assistance in resolving, to the extent feasible, their health condition. In this way, they can stay at home, where they are safe, without risking infection, and receive appropriate and timely care. This method of medical care could achieve superior outcomes in terms of quality and coverage of care, meeting patients' expectations.

## CONCLUSIONS:

Patients rated the TC with a high degree of satisfaction, and the approach made it possible to continue the care of our patients throughout the health emergency. We believe it is a promising form of care, with high resolution rates, constituting for certain patients an option as an alternative to FTF consultation. Our results reveal that it is an effective and useful tool in clinical practice in times of health emergencies. Its effectiveness and user approval provide an opportunity to optimise the affordability of cancer care and provide an opportunity for more inclusive practices in the future.

**Sources Of Funding:** This research did not receive any specific grants from funding agencies in the public, commercial or non-profit sectors.

**Conflict Of Interest:** The authors declare that they have no competing interests.

All of the authors declare that they have all participated in the design, execution, and analysis of the paper, and that they have approved the final version. Additionally, there are no conflicts of interest in connection with this paper, and the material described is not under publication or consideration for publication elsewhere

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