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ORIGINAL ARTICLE

Satisfaction with in-person and teleconsultation outpatient care in breast cancer patients at a Peruvian cancer center

Satisfacción de la atención ambulatoria presencial y atención ambulatoria por teleconsulta en paciente con cáncer de mama en una institución del Perú

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ABSTRACT

Introduction: Teleconsultation involves the remote provision of health services by healthcare professionals using information and communication technologies. **Objective:** The objective of our study is to assess the satisfaction with in-person and teleconsultation outpatient care among breast cancer patients at a private Peruvian cancer center. **Materials and methods:** An analytical cross-sectional study was conducted on 167 breast cancer patients during the Peruvian state of emergency due to the COVID-19 pandemic. Two instruments were applied: one for user satisfaction with in-person outpatient care and another for teleconsultation care. The SERVQUAL instrument was adapted for each type of care. An Aiken's V coefficient and a Cronbach's alpha coefficient of 0.9 and 0.943 were obtained as validity and reliability measures for the instrument for both modes of care, respectively. A Google Forms document was sent via WhatsApp. The evaluation of the difference between the two modes of care was performed using the McNemar test. **Results:** A total of 167 patients were included. Most patients were female (89.22%) and aged between 45 and 59 years (55%). The main reason for consultation was to receive active systemic therapy (32.3%), and the most consulted specialty was medical oncology (82.4%). A total of 65.87% (n=110) of patients considered in-person care unsatisfactory, while 48.50% (n=81) considered teleconsultation care unsatisfactory ($p<0.05$). **Conclusion:** Both modes of care predominantly received unsatisfactory ratings. Despite this, patients reported higher satisfaction with teleconsultation outpatient care compared to in-person outpatient care.

Keywords
Telemedicine, patient satisfaction, ambulatory care, cross-sectional studies, Peru (source: MeSH-NLM).

RESUMEN

Introducción: La teleconsulta implica la prestación de servicios de salud a distancia por parte de profesionales de la salud utilizando Tecnologías de la Información y Comunicación. El objetivo del nuestro estudio es conocer la

satisfacción con la atención ambulatoria presencial y la teleconsulta entre los pacientes con cáncer de mama de una institución peruana de atención privada dedicada al tratamiento de neoplasias. **Materiales y métodos:** Se realizó un estudio analítico transversal en 167 pacientes con cáncer de mama durante el estado de emergencia peruano por la pandemia de COVID-19. Se aplicaron dos instrumentos: uno para la satisfacción del usuario en consulta ambulatoria presencial y el otro para la atención por teleconsulta. El instrumento SERVQUAL fue adaptado para cada tipo de atención. Se obtuvo un coeficiente V de Aiken y alfa de Cronbach de 0,9 y 0,943 como medidas de validez y confiabilidad para ambos tipos de atención. Se envio un formulario de google forms por correo y por WhatsApp. La evaluación de la diferencia entre las dos modalidades de atención se realizo mediante la prueba de McNemar. **Resultados:** Se incluyeron un total de 167 pacientes. La mayoría de los pacientes eran mujeres (89,22%), entre 45 y 59 años (55%). El principal motivo de consulta fue la continuidad de tratamiento sistémico activo (32,3%) y la especialidad más consultada fue oncología médica (82,4%). El 65,87% (n=110) de los pacientes consideró insatisfactoria la atención presencial, mientras que un 48,50% (n=81) de los pacientes consideró insatisfactoria a la teleconsulta (p<0,05). **Conclusión:** Ambos modos de atención recibieron calificaciones insatisfactorias. A pesar de esto, los pacientes informaron una mayor satisfacción con atención ambulatoria por teleconsulta en comparación con la atención ambulatoria presencial.

Palabras clave

Teleconsulta, satisfacción del paciente, atención ambulatoria, estudios transversales, Perú (fuente: DeCS-BIREME).

INTRODUCTION

Breast cancer (BC) is one of the most common cancers. According to GLOBOCAN 2022, it ranks first in incidence worldwide for both sexes and first among women [1]. In the United States, the age-standardized incidence is 95.9 annual cases per 100,000 people; in Spain, it is 81.0 annual cases per 100,000 people. In Peru, BC ranks second in incidence for both sexes and first among women; it is the fourth leading cause of cancer death in both sexes and the second among women. It has an age-standardized incidence of 39.3 annual cases per 100,000 people and an age-standardized mortality of 9.4 annual cases per 100,000 people [1].

The incidence and mortality of cancer are influenced not only by factors inherent to the pathophysiology of the disease but also by timely access to health services at the promotional, preventive, diagnostic, treatment, and rehabilitation levels [2,3]. Additionally, the onset of the pandemic caused by the SARS-CoV-2 virus in 2020 resulted in high mortality within this group, not only due to the alteration of their immune system but also to the lack of timely access to treatment [4]. A Peruvian study demonstrated that cancer mortality was higher than COVID-19 disease mortality during the COVID-19 pandemic, where more than half (51.6%) experienced delays in cancer treatment, 42.5% changed treatment administration (from intravenous therapy to oral systemic therapy), and 12.6% had cancer therapy discontinued [5]. Another study showed that over a 15-year period (2003-2017) in Peru, the coastal region experienced a decrease in BC mortality, while the highland region observed an increase. This underscores the need to implement tailored public health interventions aimed at increasing care coverage in hard-to-reach areas [6].

In response to both the regional heterogeneity of our population and the lack of access to both public and private healthcare, during and after the COVID-19 pandemic, the use of telehealth has been implemented and standardized [7,8]. Teleconsultation involves the provision of remote health services by healthcare professionals using Information and Communication Technologies (ICT), serving as an alternative to in-person medical consultations [9]. In this regard, the aim of the present study is to assess the satisfaction with in-person and teleconsultation outpatient care among BC patients at a Peruvian private cancer center. We aim to address the questions of whether the needs of cancer patients were met and if the necessary quality of care was provided.

MATERIALS AND METHODS

Design and population

This observational, analytical, cross-sectional study was conducted on patients diagnosed with BC who received in-person and teleconsultation outpatient care services at a private cancer center in Lima, Peru, between October and December 2021. This period coincided with the Peruvian state of emergency due to the COVID-19 pandemic.

Selection criteria

This study included patients aged 18 years or older who, during the specified period, received both in-person and teleconsultation outpatient care services. Patients were excluded if they did not provide consent to participate, had a recorded mental disorder in their medical history that could affect the accuracy of their responses, or had a diagnosis of two or more neoplasms.

Sample size and sampling

The study included all patients who met the previously described selection criteria during the specified period.

Variables and outcomes

The study included variables such as sex, age, education level, purpose of consultation, specialty of consultation, and survey respondent. Two instruments were applied: one to assess user satisfaction with in-person outpatient care and another to assess satisfaction with teleconsultation outpatient care. The last 44 items of both instruments were used as variables to quantify the outcome of user satisfaction and the category of improvement [10].

The satisfaction level was measured for each type of care. Each item on the instrument was scored from 1 to 7 (1: strongly disagree, 2: disagree, 3: somewhat disagree, 4: neutral, 5: somewhat agree, 6: agree, 7: strongly agree) [10]. A satisfied user corresponded to a positive value (+), obtained from the difference between perceptions (P) and expectations (E), while a dissatisfied user corresponded to a negative value (-) from the difference [10]. The improvement category was classified as "needs improvement" (dissatisfaction greater than 60%), "in process" (dissatisfaction between 40% and 60%), and "Acceptable" (dissatisfaction less than 40%) [10].

Procedure and instrument

Permission to conduct the research was requested through a letter addressed to the Medical Director of the private cancer center and its scientific research department. Subsequently, the Information Technology department was appointed to filter patients with BC using International Statistical Classification of Diseases and Related Health Problems codes - ICD-10 (C50, D05, and D48.6). Clinical records were then reviewed to exclude ineligible patients and extract the telephone numbers of those who met the inclusion criteria. Each patient was contacted via WhatsApp and provided with a Google Forms document containing a declaration of willingness to participate in the study and a user satisfaction measurement instrument. This was proceeded with only if the patient accepted the declaration of participation.

The instrument used to measure user satisfaction was SERVQUAL [11], which is the tool recommended by the Ministry of Health (MINSA) of Peru for assessing external user satisfaction in healthcare facilities [10]. SERVQUAL in the healthcare sector has different types depending on the service type, level, and category. For this study, the "Encuesta para evaluar la satisfacción de los usuarios atendidos en el servicio de consulta externa en establecimientos de nivel II y III" was utilized [10]. This type of SERVQUAL survey was adapted for both in-person outpatient consultations (Supplementary material S1) and teleconsultation outpatient care (Supplementary material S2) for this research. The adaptation process is detailed in Supplementary material S3.

To demonstrate the validity and reliability of the adapted instrument, a validity test was conducted using expert judgment with the Aiken's V coefficient, resulting in clarity and relevance scores of 0.9. Subsequently, a pilot test was conducted with 20 patients to measure internal consistency reliability using Cronbach's Alpha coefficient. For in-person outpatient care, the Cronbach's Alpha coefficient was α=0.943 for the total scale, α=0.947 for E, and α=0.894 for P. Similarly, for teleconsultation outpatient care, the Cronbach's Alpha coefficient was α=0.943 for the total scale, α=0.950 for E, and α=0.905 for P. Both validated instruments were applied to each of the patients under study.

Each instrument consisted of 50 items: 6 items related to general data, 22 related to E, and 22 related to P. These items were further categorized into 5 dimensions: reliability (questions 1 to 5), responsiveness (questions 6 to 9), security (questions 10 to 13), empathy (questions 14 to 19), and tangibility (questions 19 to 22) (Supplementary material S1 and S2). As described previously, each item was rated on a Likert scale from 1 to 7. A satisfied user corresponded to a positive value in the difference between P and E, while a dissatisfied user corresponded to a negative value in that difference [10]. After data collection was completed, the Excel file was extracted from Google Forms, and data cleaning and statistical processing were performed.

Statistical analysis

Excel software was used to construct the initial database. The .xmlx file from Excel was exported to STATA version

14.0 for descriptive and analytical statistical processing and for the creation of graphs.

Descriptive analysis was performed using absolute frequencies and percentages for categorical variables (sex, education level, purpose of consultation, specialty of consultation, survey respondent), and using mean and standard deviation for numerical variables (age). The distribution of numerical variables was assessed using graphical methods such as histograms and statistical methods with the Shapiro-Wilk test. Bar charts were used to present user satisfaction results for each dimension and each item of the satisfaction instrument. The presented charts were created following the "Guía Técnica para la evaluación de la satisfacción del usuario externo en los establecimientos de Salud y servicios Médicos de Apoyo" guideliness from MINSA [10].

Analytical statistical processing was performed using statistical tests such as Chi-squared (Chi^2) and Fisher's exact test. The evaluation of the difference in user satisfaction results between the in-person modality and the teleconsultation modality was conducted using the McNemar test.

The database and codes are available on GitHub (https://github.com/willyhomm/satisfaction_face_to_face_care_VS_TH).

Ethical aspects

The research protocol was approved by the Institutional Research Ethics Committee of the Universidad Privada San Juan Bautista (registration code: 1156-2021-CIEI-UPSJB) and the institutional approval from the private cancer center from which eligible participants were recruited. All patients included in this research provided informed consent to participate, thereby respecting the ethical principle of autonomy. The research did not involve physical harm to participants as data collection was conducted virtually. Confidentiality of the research subjects was ensured by assigning a numerical identifier to each patient, thus personal data of each subject cannot be identified.

RESULTS

A total of 188 people who met the eligibility criteria of having received both in-person and teleconsultation care were selected. However, 10 of them could not be contacted, 9 declined to participate in the study, and 2 provided incomplete information during the survey. The study included 167 patients, primarily aged between 45 and 59 years (n=92; 55.09%). Of these, 10.78% were men (n=18), and the majority indicated having a university education (n=116; 69.46%).

Regarding the reason for consultation, 32.34% (n=54) of patients reported attending for their respective active systemic therapy, which included treatment with chemotherapy, biological therapy, or immunotherapy. Patients who attended for follow-up of their hormonal therapy received medications such as Anastrozole, Letrozole, Exemestane, Tamoxifen, Raloxifene, Toremifene, Fulvestrant, Goserelin, Triptorelin, or Leuprorelin (Table 1).

Table 1. Sociodemographic and user care characteristics of the entire population

Variables	n=167	%
Sex		
Female	149	89.22
Male	18	10.78
Age*	48.96	10.73
Age group		
Under 45 years	48	28.74
45 to 59 years	92	55.09
Over 60 years	27	16.17
Education level		
Secondary education	10	5.99
Technical education	41	24.55
Universitary education	116	69.46
Reason for consultation		
Medical follow-up	40	23.95
Hormonal therapy follow-up	45	26.95
Active systemic therapy	54	32.34
Radiotherapy follow-up and treatment	11	6.59
Pre-surgical exams or wound control	10	5.99
Other non-oncological consultations	7	4.19
Specialty for consultation		
Oncology	134	80.24
Surgery	10	5.99
Radiotherapy	15	8.98
Other specialty	8	4.79
Survey respondent		
Patient	131	78.44
Companion	36	21.56

*Mean and standard deviation

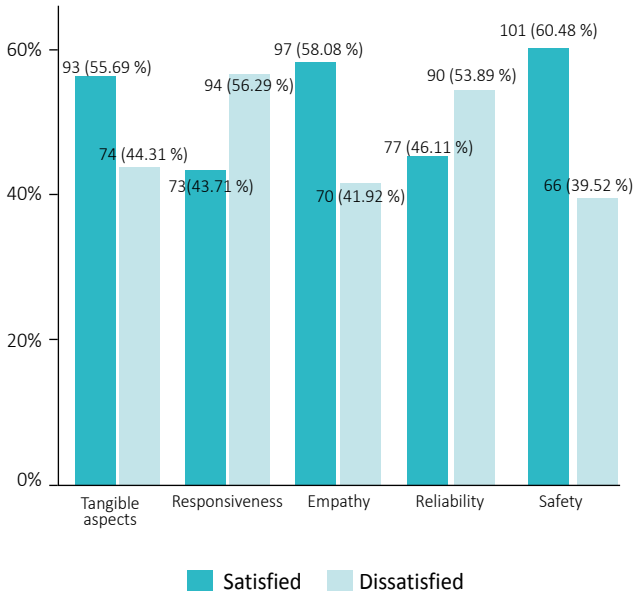

Figure 1. Dimensions of satisfaction assessment in user perceptions of in-person care

Patient satisfaction with in-person care

A total of 65.87% (n=110) of patients considered the in-person care they received to be unsatisfactory, with the reliability and responsiveness dimensions having more than 50.0% of patients reporting dissatisfaction (Figure 1). In addition, regarding the improvement category proposed by MINSA, the Safety dimension was the only one rated as "acceptable". The rest of the dimensions were categorized as "in process" for improvement. The questions with dissatisfaction scores greater than or equal to the 75th percentile (greater than or equal to 35.93%) were questions 5, 8, 2, 6, 7, and 20; these are described in Supplementary material S4. Patient satisfaction with in-person care for each question by dimension is presented in Supplementary material S5.

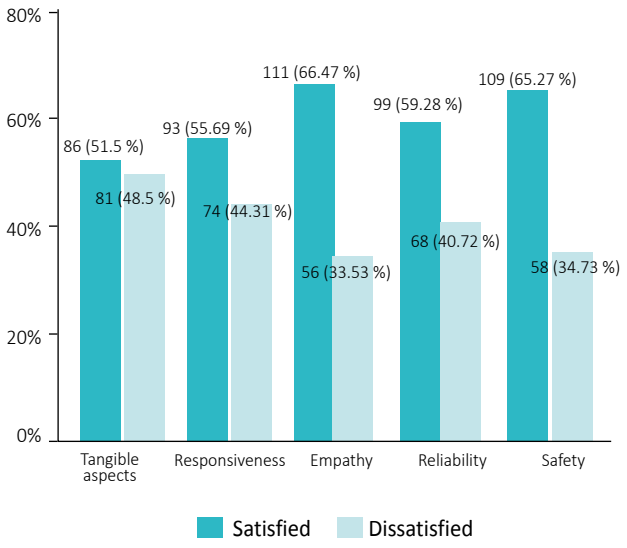

Figure 2. Dimensions of satisfaction assessment in user perceptions of teleconsultation care

Patient satisfaction with teleconsultation care

A total of 48.50% (n=81) of patients considered the teleconsultation care they received to be unsatisfactory, with the Tangible aspects dimension showing nearly 50.0% of patients reporting dissatisfaction (Figure 2). Additionally, regarding the improvement category proposed by MINSA, the dimensions rated as "acceptable" dissatisfaction were Empathy and Safety. The dimensions of Reliability, Responsiveness, and Tangible aspects were categorized as "in process" for improvement. The questions with dissatisfaction scores greater than or equal to the 75th percentile (greater than or equal to 32.93%) were questions 5, 3, 20, 22, 2, and 7; these are described in Supplementary material S6. User satisfaction with teleconsultation for each question by dimension is presented in Supplementary material S7.

Comparison of overall satisfaction with in-person vs. teleconsultation outpatient care

Significant differences were found when comparing the satisfaction levels between both types of care. It can be affirmed that there are differences in satisfaction levels between in-person care (n=57, 34.14%) compared to teleconsultation (n=86, 51.50%) (Table 2).

Improvement category according to MINSA Peru

The safety dimensions were rated as "acceptable" for improvement in both types of outpatient care, while empathy was only rated as "acceptable" for teleconsultation. The rest of the dimensions were

Table 2. Comparison of satisfaction in in-person vs. teleconsultation outpatient care

In-person care	Teleconsultation			
	Satisfied	Dissatisfied		*p*-value*
Satisfied	49	8	57	< 0.05
Dissatisfied	37	73	110	
	86	81		

*Mnemar's test

Table 3. Dimensions of satisfaction assessment in users of in-person and teleconsultation outpatient care

	Satisfied n (%)	Dissatisfied n (%)	Improvement category
In-person care			
Reliability	77 (46.11)	90 (53.89)	In process
Responsiveness	73 (43.71)	94 (56.29)	In process
Safety	101 (60.48)	66 (39.52)	Acceptable
Empathy	97 (58.08)	70 (41.92)	In process
Tangible aspects	93 (55.69)	74 (44.31)	In process
Teleconsultation			
Reliability	99 (59.28)	68 (40.72)	In process
Responsiveness	93 (55.69)	74 (44.31)	In process
Safety	109 (65.27)	58 (34.73)	Acceptable
Empathy	111 (66.47)	56 (33.53)	Acceptable
Tangible aspects	86 (51.50)	81 (48.50)	In process

categorized as "in process" for improvement. More detailed information is presented in Table 3.

DISCUSSION

Several studies aim to assess the quality of healthcare services from the perspective of external users. However, few employ the SERVQUAL methodology to compare in-person outpatient care with teleconsultation among oncology patients in the same population.

Regarding teleconsultation outpatient care, the overall satisfaction was 51.5%. Although studies in the literature also conducted on cancer patients have shown higher overall satisfaction results [7,12-14], compared to the present study, it is important to consider that the instruments used are different from the SERVQUAL instrument, many of which lack a clear methodology for defining a satisfied versus a dissatisfied patient [7,13].

It is also important to consider the temporal context of the COVID-19 pandemic during which the satisfaction with care was measured. In the present study, patients had already experienced nearly two years of isolation and restrictions, which may have influenced the negative satisfaction results for teleconsultation. This contrasts with other studies where satisfaction evaluations were conducted at an earlier stage of the pandemic [7,12-14].

The overall satisfaction results for teleconsultation may also be influenced by the specific characteristics of target population. Unlike our outpatient population, Brenes *et al.* [12] focuses on satisfaction among hospitalized patients with BC, while Montenegro *et al.* [7] studied satisfaction among a broader group of cancer patients, and Bruce *et al.* [13] examined BC patients recently discharged from hospital treatment. Zimmerman *et al.* [14] studied a group of patients with similar characteristics to our population; however, it is important to note that healthcare systems differ between a U.S. clinic and Peruvian health centers.

Regarding teleconsultation outpatient care, the overall satisfaction was 34.13%, which is much lower compared to the satisfaction level for teleconsultation. The results found in the scientific literature differ from the findings of the present study due to the use of different instruments [15,16], the temporal context prior to the COVID-19 pandemic [17,18], and the target population.

Regarding in-person outpatient care, the overall satisfaction was 34.13%, which is much lower compared to the satisfaction level for teleconsultation. The results found in the scientific literature differ from the findings of the present study due to the use of different instrument, the temporal context prior to the COVID-19 pandemic, and the target population.

It is important to clarify that this study evaluated the satisfaction level for each type of outpatient care across the entire healthcare process, which included not only medical services but also diagnostic support services (imaging and laboratory), pharmacy, services, and administrative staff. When the analysis was conducted by type of outpatient care and by its dimensions, it was found that for in-person outpatient care, the safety dimension had 60.48% of patients satisfied. Meanwhile, for teleconsultation, the dimensions with the highest satisfaction were empathy (66.47%) and safety (65.27%). Both dimensions fall within MINSA's "acceptable" improvement category. Therefore, it is the remaining dimensions (responsiveness, tangible aspects, and

reliability) where improvement strategies should be implemented to enhance the overall satisfaction rating.

Significant differences were found between the two types of care, indicating that patients receiving teleconsultation outpatient care reported higher satisfaction compared to those who received in-person care. No studies were found that compare both modalities of outpatient care in BC patients.

It is important to continue utilizing ICT in healthcare. Its use could help patients gain greater access to healthcare professionals and reduce travel time and expenses [19]. In the context of this study, the pandemic situation needed the incorporation of teleconsultation outpatient services, which allowed hundreds of BC patients to continue their treatment. Additional cost-benefit and cost-minimization studies would be necessary [20,21], building on the findings described here, to have a broader understanding of the benefits of teleconsultation care.

A limitation of the study was the lack of information regarding the sequence on which each patient received different outpatient care modalities, potentially introducing bias depending on the chronological order of care received. Another limitation is that patients responded to the survey sometime after receiving both outpatient care modalities, so the results of measuring E of care in the SERVQUAL instrument may not correspond to the ideal time (immediately after receiving care). It is suggested that future studies address the aforementioned limitations and conduct more studies comparing the same outpatient care modalities within the same group of patients.

In conclusion, our study found that satisfaction with in-person outpatient care is predominantly rated as unsatisfactory compared to teleconsultation outpatient care. Breast cancer patients appear to be more satisfied with teleconsultation than with in-person outpatient care. The dimensions requiring improvement to achieve satisfactory results are responsiveness, tangible aspects, and reliability.

REFERENCES

1. World Health Organization. Cancer Today- GLOBOCAN 2022 [Internet]. Geneva: WHO; 2022 [cited 2023 December 12]. Available from: https://gco.iarc.who.int/today/
2. Paul C, Carey M, Anderson A, Mackenzie L, Sanson-Fisher R, Courtney R, *et al.* Cancer patients' concerns regarding access to cancer care: perceived impact of waiting times along the diagnosis and treatment journey. Eur J Cancer Care (Engl). 2012;21(3):321-9. doi: 10.1111/j.1365-2354.2011.01311.x.
3. da Costa Vieira RA, Biller G, Uemura G, Ruiz CA, Curado MP. Breast cancer screening in developing countries. Clinics (Sao Paulo). 2017;72(4):244-253. doi: 10.6061/clinics/2017(04)09.
4. Yadav B, Rana D, Bharti D, Dahiya D, Gupta A. Impact of COVID-19 pandemic on breast cancer care: report from a regional cancer centre. Lancet Oncol. 2022;23:S17. doi: 10.1016/S1470-2045(22)00416-8.
5. Valdiviezo N, Alcarraz C, Castro D, Salas R, Begazo-Mollo V, Galvez-Villanueva M, *et al*. Oncological Care During First Peruvian National Emergency COVID-19 Pandemic: A Multicentric Descriptive Study. Cancer Manag Res. 2022;14:1075-1085. doi: 10.2147/CMAR.S350038.
6. Torres-Roman JS, Martinez-Herrera JF, Carioli G, Ybaseta-Medina J, Valcarcel B, Pinto JA, *et al.* Breast cancer mortality trends in Peruvian women. BMC Cancer. 2020;20(1):1173. doi: 10.1186/s12885-020-07671-x.
7. Montenegro P, Pinillos L, Young F, Aguilar A, Tirado-Hurtado I, Pinto JA, *et al.* Telemedicine and the current opportunities for the management of oncological patients in Peru in the context of COVID-19 pandemic. Crit Rev Oncol Hematol. 2021;157:103129. doi: 10.1016/j.critrevonc.2020.103129.
8. Paredes-Noguni SR, Castro-Uriol DA, Salas-Rojas RM, Soto-Becerra P, Beltrán-Gárate BE. [Teleconsultations in oncology: experience in a hospital in Peru during the pandemic]. Rev Peru Med Exp Salud Publica. 2021;38(1):178-9. doi: 10.17843/rpmesp.2021.381.6237.
9. Ministerio de Salud del Perú. Norma técnica de salud en telesalud. NTS N° 067-MINSA/DGSP-V.01 [Internet]. Lima: MINSA; 2009 [cited 2023 December 12]. Available from: https://www.gob.pe/institucion/minsa/informes-publicaciones/321987-norma-tecnica-de-salud-en-telesalud-nts-n-067-minsa-dgsp-v-01
10. Ministerio de Salud del Perú, Dirección General de Salud de las Personas, Dirección de Calidad en Salud. Guía Técnica para la Evaluación de la Satisfacción del Usuario Externo en los Establecimientos y Servicios Médicos de Apoyo. RM N° 527-2011/MINSA [Internet]. Lima: MISA; 2012. Available from: http://bvs.minsa.gob.pe/local/minsa/2252.pdf
11. Parasuraman A, Zeithaml VA, Berry LL. SERVQUAL: A multiple-item scale for measuring consumer perceptions of service quality. J Retail. 1988;64:12-40.
12. Brenes Sánchez JM, Picado AL, Olivares Crespo ME, García Sáenz JÁ, De La Plata Merlo RM, De La Muela MH. Breast Cancer Management During COVID-19 Pandemic in Madrid: Surgical Strategy. Clin Breast Cancer. 2021;21(1):e128-e135. doi: 10.1016/j.clbc.2020.10.006.
13. Bruce AS, Middleton H, Pearce B, MacPherson C, Evans A. P145. Patient satisfaction with nurse-led end of treatment telephone consultation for breast cancer during COVID-19 pandemic. Eur J Surg Oncol. 2021;47(5):e334. doi: 10.1016/j.ejso.2021.03.149.
14. Zimmerman BS, Seidman D, Berger N, Cascetta KP, Nezolosky M, Trlica K, *et al.* Patient Perception of Telehealth Services for Breast and Gynecologic Oncology Care during the COVID-19 Pandemic: A Single Center Survey-based Study. J Breast Cancer. 2020;23(5):542-552. doi: 10.4048/jbc.2020.23.e56.
15. Wadasadawala T, Mangaj A, Mokal S, Pathak R, Sarin R, Gaikar M, *et al.* Measuring Satisfaction in Breast Cancer Pa-

tients Receiving Ambulatory Care: A Validation Study. Indian J Med Paediatr Oncol. 2021;43:473-9.
16. Abdelsalam AE, Bayomi MA. Assessment of Supportive Care Needs, Satisfaction and Quality of Life among Breast Cancer Survivors. Egypt Fam Med J. 2022;6(1):3-18.
17. Zhang X, Li P, Zhang C, Guo P, Wang J, Liu N, *et al.* Breast Cancer Screening Practices and Satisfaction With Healthcare Providers in Chinese Women: A Cross-sectional Study. Cancer Nurs. 2022;45(2):E573-E581. doi: 10.1097/NCC.0000000000000942.
18. de Kok M, Sixma HJM, van der Weijden T, Kessels AGH, Dirksen CD, Spijkers KFJ, *et al.* A patient-centred instrument for assessment of quality of breast cancer care: results of a pilot questionnaire. Qual Saf Health Care. 2010;19(6):e40. doi: 10.1136/qshc.2007.025890.
19. Moffatt JJ, Eley DS. The reported benefits of telehealth for rural Australians. Aust Health Rev. 2010;34(3):276-81. doi: 10.1071/AH09794.
20. Scurrey S, Garland SN, Thoms J, Laing K. Evaluating the experience of rural individuals with prostate and breast cancer participating in research via telehealth. Rural Remote Health. 2019;19(3):5269. doi: 10.22605/RRH5269.
21. López AP, Vargas KAC. Eficacia de la teleconsulta; seguimiento de pacientes después de recibir teleconsulta en programa en hospitales públicos: Chihuahua México. Lat Am J Telehealth. 2018;5(3):296-312.