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Covid-19 pandemic: quality of life in cancer patients

Pandemia da covid-19: qualidade de vida dos pacientes com câncer Pandemia de la covid-19: calidad de vida de pacientes con cáncer

Abstract

Objective: to evaluate the quality of life of people with cancer undergoing cancer treatment during the covid-19 pandemic and possible associations with sociodemographic and clinical data. Method: descriptive, analytical, cross-sectional study. Eighty people with cancer treated at the outpatient clinic of a teaching hospital were interviewed, using the World Health Organization Quality of Life and a sociodemographic and clinical data questionnaire. Results: 35 men and 45 women participated, 100% had a regular mean quality of life score. It was found that there is a correlation only between the psychological domain and age (p= 0.03), the statistical tests pointed to a tendency for men to present higher scores in all domains, but without scientific affirmation (p>0.05), noting that the other variables do not show a statistical tendency of significance. Conclusion: The quality of life of study participants was interpreted as regular; with a lower score in the physical domain; 56 (70%) participants reported that the pandemic did not interfere with treatment. Descriptors: Neoplasms; Medical oncology; Quality of life; Pandemic.

Resumo

Objetivo: avaliar a qualidade de vida das pessoas com câncer em tratamento oncológico durante a pandemia da covid-19 e possíveis associações com dados sociodemográficos e clínicos. Método: estudo descritivo, analítico, transversal. Foram entrevistadas oitenta pessoas com câncer atendidas no ambulatório de um hospital de ensino, utilizando o World Health Organization Quality of Life e questionário de dados sociodemográficos e clínicos. Resultados: Participaram 35 homens e 45 mulheres, 100% apresentaram escore médio regular de qualidade de vida. Constatou-se que há correlação apenas entre o domínio psicológico e a idade (p=0,03), os testes estatísticos apontaram tendência de os homens apresentarem maior escore em todos os domínios, mas sem afirmação científica (p>0,05) Observou-se que as demais variáveis não apresentam tendência estatística de significância. Conclusão: A qualidade de vida dos participantes do estudo foi interpretada como regular; com menor escore no domínio físico; 56(70%) participantes relataram que a pandemia não interferiu no tratamento. Descritores: Neoplasias; Oncologia; Qualidade de vida; Pandemia.

Resumen

Objetivo: evaluar la calidad de vida de personas con cáncer en tratamiento oncológico durante la pandemia de la covid-19 y sus posibles asociaciones con datos sociodemográficos y clínicos. Método: estudio descriptivo, analítico, transversal. Se entrevistó a 80 personas con cáncer, tratadas en el centro ambulatorio de un hospital universitario, utilizando el cuestionario de calidad de vida de la Organización Mundial de la Salud y un cuestionario de datos sociodemográficos y clínicos. Resultados: Participaron 35 hombres y 45 mujeres, el 100% tenían un puntaje de calidad de vida promedio regular. Se constató que existe correlación solo entre el dominio psicológico y de la edad (p=0,03) y que hay una tendencia de los hombres a presentar puntuaciones más altas en todos los dominios, pero sin afirmación científica (p>0,05). Se observó que las demás variables no tienen una tendencia estadística de significación. Conclusión: La calidad de vida de los participantes del estudio fue regular; con una puntuación más baja en el dominio físico; y 56(70%) participantes informaron que la pandemia no interfirió en el tratamiento.

Descriptores: Neoplasias; Oncología médica; Calidad de Vida, Pandemia.

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INTRODUCTION

At the beginning of 2020, the world was affected by a major public health problem, the infection by the new coronavirus (2019nCoV), a disease that affected millions of people around the planet. The main recommendation was social distancing, in addition to hand hygiene⁽¹⁾. In Brazil, the situation was worrying, considering that it is a country with significant social inequality, with millions of people living without access to basic sanitation, without adequate housing and with high prevalence of chronic diseases⁽²⁾, cancer among them.

People with cancer are considered risk groups for the COVID-19 infection and are more susceptible to the severe forms of the disease and to death. In mid-2020, a study pointed out that the global pandemic moment was also capable of exerting negative impacts on the Quality of Life (QoL) of these patients and affecting them in several aspects due to their greater susceptibility to infection caused by immunosuppression, the possible delay in treatment and diagnosis, and the change in diet and physical exercise routine⁽³⁾. A number of studies indicate that the quarantine to contain the COVID-19 pandemic has become not only a threat to physical health, but also to people's mental health, with increased depression, anxiety and stress symptoms and decreased sleep quality⁽⁴⁻⁵⁾, thus increasing distress in many people⁽⁶⁾.

Regarding cancer treatment, it is noted that it is carried out in the secondary and tertiary health care networks, whereas the diagnosis is made from the primary health care networks, remembering that, from signature of the medical report in the Unified Health System (Sistema Unico de Saúde, SUS), treatment should necessarily be initiated within sixty days after the disease has been diagnosed⁽⁷⁾.

Although there is no consensus on the definition of QoL, there is agreement that it is an abstract construct, an individual perception directly associated with selfesteem and personal well-being that comprises

several aspects, such as functional capacity, socioeconomic status, emotional state, social interaction, intellectual activity, self-care and family support; in other words, it comprises the biopsychosocial and spiritual state of a person⁽⁸⁾. Thus, it is considered that the pandemic situation directly affected the QoL of cancer patients who also deal with the physical and mental changes resulting from the treatment and coping with the disease⁽³⁾. In this sense, it is understood that people with cancer are at high risk in this pandemic context due to the disease and the systemic immunosuppression state also caused by the treatment, which involves chemotherapy, radiotherapy and cell transplantation⁽⁹⁻¹¹⁾.

At the global level, the incidence of mortality due to some malignant neoplasm is rapidly increasing. As in most of the countries, in Brazil, cancer ranks first or second in the causes of death among people aged less than seventy years old. It is estimated that there will be 704,000 new cancer cases during 2023 in the country(12).

The state of São Paulo followed a renewal of quarantine decrees from March 2020 to April 2021, applying activity restriction measures to avoid possible coronavirus contamination or spread⁽¹³⁾, in consideration of the recommendations set forth by the Coronavirus Contingency Center and the need to contain COVID-19 spread, ensure proper functioning of health services and preserve public health.

The following question arose due to the complexity of neoplasms and the pandemic: Did the pandemic and the restrictions imposed to prevent COVID-19 propagation affect QoL in patients undergoing cancer treatment?

Thus, the objective of this research was to evaluate Quality of Life in people with cancer undergoing oncology treatment during the COVID-19 pandemic and possible associations with sociodemographic and clinical data, considering that the situation might fully reflect on the QoL of these patients due to the impact of the disease and the cancer treatment itself and, thus, on their well-being(14).

METHOD

Ethical aspects

The study was developed after approval by the institution's Research Ethics Committee, under Certificate of Presentation of Ethical 47053221.3.0000.5415 Appraisal (Opinion No. 4,819,936) and respected the ethical principles in research with human beings, according to Resolution 466/2012 of the National Health Council. The patients who agreed to participate in the research signed a Free and Informed Consent Form (FICF) after understanding the research purpose, risks and benefits, as well as privacy and secrecy of the confidential data involved in the research.

Study type and locus

This is a descriptive, analytical, cross-sectional and quantitative study, with presentation of its results guided by Strengthening the Reporting of Observational Studies in Epidemiology (STROBE), a checklist consisting of 22 items that should be included in observational study reports.

It was conducted between September and December 2021 in the Cancer Institute (Instituto do Câncer, ICA) outpatient service of a teaching hospital located in the farthest end of Northeast region from the state of São Paulo.

Sample and inclusion/exclusion criteria

The sample was non-probabilistic. The subjects included in the study were patients of both genders, aged at least 18 years old, who attended consultations at the ICA during the data collection period, able to communicate verbally and understand the Free and Informed Consent Form (FICF), and giving coherent answers to the questions asked by the interviewer. Those who were not in due conditions to answer the questionnaire for reporting pain at that moment were excluded.

Data collection procedures

The participants were invited on the outpatient consultation day; those who accepted were interviewed by the researcher for 15-20 minutes and in a reserved space, following two instruments: one with sociodemographic and clinical data (gender, age, origin, schooling, monthly income, type of cancer, treatment time and types of treatment), in addition to the question "Did the pandemic interfere with your treatment?"; the other one was the Brazilian version of the abbreviated QoL instrument called World Health Organization Quality of Life-Bref (WHOQOL-BREF), developed based on the principle that the QoL concept is comprehensive and can be applied to various diseases and non-medical situations(15).

WHOQOL-BREF consists of 26 questions, where numbers 1 and 2 are about overall Quality of Life. The answers follow a 1-to-5 Likert scale (the higher the score the better the QoL). Save for these two questions (1 and 2), the instrument has 24 facets, which comprise four domains: Physical domain (facets: Pain and discomfort; Energy and fatigue; Sleep and rest; Mobility; Activities of daily living; Dependence on medication or on treatments; and Work capacity); Psychological domain (facets: Positive feelings; Thinking, learning, memory and concentration; Self-esteem; Body image and appearance; Negative feelings; Spirituality/ Religion/Personal beliefs); Social relations domain (facets: Social relations; Social support; Sexual activity); and Environmental domain (facets: Physical safety and security; Home environment; Financial resources; Health and social care availability and quality; Opportunities to gain new information and skills; Participation in and opportunities for recreation/leisure; Physical environment [pollution/noise/traffic/climate]; Transportation). The instrument has a maximum score of five points(15).

Data analysis

The data collected were analyzed from a quantitative point of view by means of the following statistical analysis functions: descriptive and inferential. For the descriptive analysis, the mean, standard deviation, minimum

and maximum were calculated and, for the inferential analysis, independence and prediction were calculated between the variables proposed in the study. Hypothesis tests were performed using, within the expected standards, Spearman's Correlation tests for the correlation between the continuous variables and Mann-Whitney's U for the non-parametric ones (marital status, income, cancer location, and type of treatment), with the aid of the SPSS Statistics software, version 23.0, linked to the features of the Excel® tool, version 2016. The significance level adopted was 5% (p-value<0.05). The data obtained through WHOQOL-BREF were analyzed according to the means for each domain (with five meaning very good QoL and one, poor QoL), which were interpreted considering mean scores from 1 to 2.9 (needs to improve), from 3 to 3.9 (fair), from 4 to 4.9 (good) and 5 (very good)⁽¹⁶⁾.

RESULTS

The sample consisted of 80 (100%) participants: 35 (43.75%) males and 45 (56.25%) females, with a mean age of 60.5 years old and between 20 and 83 years old, with 44 (55.00%) aged over 60. Regarding marital status, 57 (51.25%) reported being married and/or in a stable union, 46 (57.50%) had not completed Elementary School, 28 (35.00%) lived with a monthly income of two wages, 20 (25.00%) with one wage and only 4 (5.00%) with more than six wages. 14 (17.50%) were from the city of São José do Rio Preto and 66 (82.50%) came from other municipalities, 20 (25.00%) had breast cancer, 12 (15%) bowel, 8 (10%) prostate, 6 (7.50%) liver, 5 (6.25%) lung, 5 (6.25%) head and neck and a smaller percentage distributed among tumors of the esophagus, pancreas, uterus and attachments, bladder, hypophysis, stomach and skin, most of the participants with treatment times of up to 24 months.

Among the participants, 56 (70%) answered that the pandemic did not interfere with their treatment, whereas the others stated that they had problems with health loci, fear of leaving home and because they or their spouses were COVID-19 positive.

Regarding the treatment, three types were identified among the answers: chemotherapy, radiotherapy and surgery, as shown in Table 1.

Table 1 - Types of treatment of the study participants. São José do Rio Preto, SP. Brazil, 2021.

Type of treatment	n	%
Surgery	16	20.00
Chemotherapy	19	23.75
Surgery and chemotherapy	14	17.50
Surgery and radiotherapy	6	7.50
Surgery, chemotherapy and radiotherapy	13	16.25
Chemotherapy and radiotherapy	10	12.50
About to start	2	2.50

Source: Research data (2021).

Table 2 presents the scores of each domain from the QoL questionnaire obtained through the WHOQOL-BREF instrument by the research participants, as well as the standard deviation, minimum and maximum values.

Table 2 - Scores obtained by the study participants in the World Health Organization Quality of Life-BREF domains. São José do Rio Preto, SP. Brazil, 2021. (n=80).

WHOQOL domains	Mean	Standard Deviation	Minimum	Maximum
Physical	3.23	0.62	1.71	4.43
Psychological	3.84	0.69	2.00	5.00
Social Relations	3.83	0.79	1.33	5.00
Environmental	3.81	0.58	1.38	5.00
Overall QoL	3.67	0.54	1.77	4.62

Source: Research data (2021).

When analyzing the answers to the WHOQOL-BREF questionnaire, it was concluded that the participants' overall QoL is FAIR. The Energy and fatigue subdomain (facet) was the one with the lowest score, as well as Work capacity, Financial resources and Opportunities to acquire new information and skills, thus considering that they NEEED TO IMPROVE. In turn, the facets of Thinking,

learning, memory and concentration, Negative feelings, Personal relationships, Participation in and opportunities for recreation/leisure, Physical environment (pollution/noise/traffic/ climate) and Transportation were interpreted as GOOD (Figure 1).

Figure 1 - Values corresponding to the scores obtained by the study participants in the facets from the WHOQQL-BREF questionnaire domains. São José do Rio Preto, SP. Brazil, 2021. (n=80).

Physical domain	Score Mean (SD)	Overall QoL
Pain and discomfort	3.52 (1.41)	
Energy and fatigue	1.65 (0.92)	
Sleep and rest	3.38 (1.02)	
Mobility	3.89 (0.94)	3.23 Fair
Activities of daily living	3.67 (1.13)	
Dependence on medications or treatments	3.57 (1.00)	
Work capacity	2.97 (1.11)	
Psychological domain		
Positive feelings	3.32 (1.05)	
Thinking, learning, memory and concentration	4.34 (0.79)	
Self-esteem	3.73 (1.05)	3.84 Fair
Body image and appearance	3.93 (0.87)	
Negative feelings	4.03 (0.93)	
Spirituality, religion and personal beliefs	3.72 (1.10)	
Social Relations domain		
Personal relationships	4.25 (0.83)	3.83
Social support	3.90 (1.15)	Fair
Sexual activity	3.36 (1.01)	
Environmental domain		
Physical safety and security	3.74 (1.08)	
Home environment	4.32 (0.81)	
Financial resources	2.90 (0.82)	
Health and social care: availability and quality	3.76 (0.88)	3.81 Fair
Opportunities to acquire new information and skills	2.57 (1.15)	
Participation in and opportunities for recreation/leisure activities	4.31(0.96)	
Physical environment (pollution/noise/traffic/climate)	4.52 (0.69)	
Transportation	4.42 (0.80)	
Self-perception of overall QoL		3.67

Source: Research data (2021).

Table 3 shows that there was little difference between the genders regarding the scores obtained in the Physical and Social domains. The Physical domain score was lower in the participants aged from 41 to 60 years old, divorced, monthly income of one salary and coming from São José do Rio Preto, whereas in the Psychological domain, the score was lower among women, those aged from 41 to 50 years old, divorced, with incomes of one wage and coming from São José do Rio Preto. In the Social Relations domain, the score was lower among those under 30 years of age, there was a minimum difference in marital status and monthly income, and those from outside Rio Preto.

In the Environmental domain, the lowest scores were among the men, in the participants belonging to the age group between 41 and 50 years old, divorced, with incomes up to one wage and coming from Rio Preto. In the overall QoL perceived by the participants, the score was higher among the men, among the participants aged less than 30 years old, married and/or in a stable union, with an

income of three wages and those from other municipalities (Table 3).

According to Spearman's Correlation test, there is only a correlation between the Psychological domain and age (corr=0.242), scientifically confirmed by its significance, with p-value=0.030. Also according to the same test, it was possible to conclude that there is a trend for males to present higher scores in all the domains and in overall QoL, as well as those who are older and those from other municipalities, although this conclusion cannot be stated scientifically due to significance: p>0.05. When applying Mann-Whitney's U test among the other variables, it was observed that they do not present any statistical trend of significance; in other words, the result of one of them does not influence the result of the other in a possible variation, as observed by the p-value (Table 3).

Table 3 – Scores obtained in the World Health Organization Quality of Life-BREF domains, according to the participants' sociodemographic characteristics (n=80). SP. Brazil. 2021.

Variables	Physical domain		Psychological domain		Social domain		Environmental domain		General domain	
	Mean (SD)	p-value	Mean (SD)	p-value	Mean (SD)	p-value	Mean (SD)	p-value	Mean (SD)	p-value
Gender*		0.776		0.187		0.381		0.682		0.538
Female	3.20(0.72)		3.72(0.79)		3.87(0.83)		3.77(0.62)		3.62(0.59)	
Male	3.26(0.49)		4.00(0.51)		3.77(0.73)		3.86(0.53)		3.73(0.46)	
Age*		0.066		0.030		0.467		0.562		0.120
Up to 30 years old	3.57(0.20)		4.08(0.59)		3.67(0)		4.19(0.27)		4.00(0.22)	
31-40 years old	3.71(0.00)		3.58(1.53)		4.44(0.51)		4.19(0.80)		3.96(0.76)	
41-50 years old	2.91(0.86)		3.53(1.00)		3.73(1.02)		3.39(0.83)		3.38(0.82)	
51-60 years old	2.98(0.43)		3.61(0.61)		3.56(0.81)		3.77(0.50)		3.48(0.40)	
>60 years old	3.39(0.61)		4.03(0.58)		3.94(0.72)		3.89(0.53)		3.80(0.49)	
Marital Status†		0.597		0.480		0.424		0.427		0.826
Single	3.03(0.49)		3.95(0.47)		3.92(1.05)		3.83(0.62)		3.66(0.47)	
Married	3.30(0.66)		3.86(0.69)		3.86(0.74)		3.80(0.60)		3.70(0.56)	
Divorced	2.86(0.35)		2.96(0.75)		3.08(0.69)		3.47(0.50)		3.11(0.46)	
Widowed	3.21(0.60)		4.03(0.77)		3.78(0.54)		4.04(0.34)		3.76(0.45)	

(continues)

Variables	Physical domain		Psychological domain		Social domain		Environmental domain		General domain	
	Mean	p-value	Mean	p-value	Mean	p-value	Mean (SD)	p-value	Mean	p-value
Monthly Income†	(SD)	0.457	(SD)	0.621	(SD)	0.381	(SD)	0.539	(SD)	0.712
No income	3.54(0.55)		4.27(0.72)		4.13(0.80)		4.18(0.73)		4.02(0.66)	
1 wage	2.92(0.54)		3.61(0.77)		3.42(0.90)		3.49(0.68)		3.37(0.55)	
2 wages	3.21(0.69)		3.78(0.66)		3.92(0.79)		3.71(0.40)		3.63(0.49)	
3 wages	3.44(0.52)		4.30(0.38)		4.23(0.50)		4.10(0.26)		4.00(0.36)	
4 wages	3.05(0.79)		3.94(0.54)		4.22(0.69)		3.92(0.26)		3.71(0.39)	
5 wages	3.43(0.45)		3.97(0.56)		4.00(0.33)		4.10(0.58)		3.89(0.44)	
6 wages	3.71(0.71)		3.88(0.90)		3.67(0.94)		4.44(0.73)		3.98(0.76)	
Missing	3.31(0.53)		3.57(0.75)		3.53(0.38)		3.85(0.73)		3.59(0.48)	
Origin†		0.066		0.512		0.664		0.525		0.241
City locus of the study	2.97(0.57)		3.74(0.68)		3.79(0.74)		3.75(0.47)		3.54(0.49)	
Other municipalities	3.28(0.62)		3.86(0.70)		3.83(0.80)		3.82(0.61)		3.70(0.55)	

p-value -*Spearman's Correlation Test

†Mann-Whitney's U Test

Source: The authors.

In the intersection between the scores obtained in the domains from the WHOQOL-BREF questionnaire and the clinical characteristics of the study participants, through the Spearman Correlation test, it was observed that there is an increasing trend in the scores of the QoL domains as treatment time increases.

DISCUSSION

The study sought to evaluate the QoL of patients who were undergoing cancer during the pandemic, using the WHOQOL-BREF questionnaire, as well as to identify possible associations of QoL with the participants' sociodemographic and clinical characteristics.

Initially, it is important to highlight that 56 participants (70%) reported that the pandemic did not interfere with their treatment, whereas 14 women (58.33%) and ten men (41.67%) stated that there was interference, reporting these reasons: problems in health care loci, such as lack of transportation and insufficient number of professionals for care; fear of leaving home; and the fact that the respondent or spouse is

COVID-19 positive. In another study, carried out at a public hospital in the Federal District with data collection conducted in the same period, it was found that 46.74% failed to attend the health unit for fear of being contaminated with the coronavirus, that 22.83% of the consultations were canceled, as well as that there was delay in the test results, but with the difference that the population studied was from the city where they underwent treatment(17).

It was observed that 56.25% of the participants were female and that the most prevalent cancer types were breast (15%), bowel (10%) and prostate (7.50%), data that corroborate other studies(18-20) and are in accordance with the estimate for the 2023-2025 triennium, with adjusted incidence rates of new cancer cases per a hundred thousand inhabitants, except non-melanoma skin: 185.61 in men and 154.08 in women in Brazil⁽¹²⁾.

Most of the participants were married (51.25%), had not completed Elementary School (57.50%) and lives on an income of two wages (25%), data similar to those found in the study carried out through the analysis of medical records of cancer patients from 2010 to 2017, included in the home program in Belém (PA)(21). As was the case in the current research, a study conducted in France in 2020 also had a population aged over sixty years old (31%) and undergoing cancer treatment for two years (22).

Among other aspects, the QoL questionnaire used addresses the disposition and energy for everyday tasks, sleep and physical pain, which should consider the side effects of the cancer treatment that also affects the patients' physical health, such as chemotherapy, which can cause different symptoms such as sleep disorders, fatigue, nausea, vomiting, weight loss, decreased intestinal flora and limited mobility⁽²³⁾, which was observed in the data obtained in the Physical domain that presented a lower score than the others.

The data indicate that the participants over sixty years of age, male, from municipalities outside São José do Rio Preto and with longer treatment times had a tendency to higher scores in the Physical domain. The other variables, such as income, marital status, cancer location and type of treatment, did not show any statistical trend of significance, indicating that they did not significantly interfere with the physical aspects of QoL in the cancer patients during the pandemic period. These data are in line with the prospective study from a European country carried out in a hospital between May and June 2020⁽²²⁾.

It is worth remembering that the group at risk for a severe clinical condition and death due to the COVID-19 infection consists of people over the age of sixty, with chronic diseases and immunosuppressed. Coping with social isolation, feelings of stress, fear, anguish and loneliness cause psychosocial impairment and decreased immunity, which increases the risk of developing more serious complications(24), aspects that can be considered with online interventions to support mental health and social interaction during times of social distancing and lockdowns.

It was noticed that the men belonging to the oldest age group and with longer treatment times presented a tendency to higher scores

in the Psychological domain. Another study, conducted in 2017 in São Paulo with aged people, found through the same instrument that men over 65 years old and married had higher scores in the Physical domain and that people with complete Higher Education had better scores in the WHOQOL-BREF general domain, whereas those who were illiterate had lower total scores, except in the Social domain. This same study also highlights that there was a significant and negative correlation between age and the overall QoL score; in other words, the older the age, the lower the score⁽²⁵⁾. This aspect was also observed in the current study.

A number of research studies have shown that the pandemic has negatively interfered with people's mental health in general⁽⁴⁻⁵⁾, associating this fact with the fear of contracting the most severe forms of the disease in view of the vulnerability, complications and high mortality rates susceptible to people with cancer in the face of contamination with the virus⁽²⁴⁾, which contrasts with the data of this study. When the Psychological domain was analyzed, the statistical tests showed that the pandemic did not exert a significant effect on the participants' mental health.

It was observed that the participants who did not suffer interference from the pandemic in their treatment had higher scores in all the WHOQOL-BREF domains, when compared to those who answered that the pandemic did interfere. Another study, carried out in 2020 at the same site of this study with 107 patients undergoing systemic treatment for solid cancer, found that less than 1% tested positive for COVID-19 and the authors attributed this to the fact that the cancer patients are aware of the increased risk of developing a severe disease and are therefore more rigorous with physical distancing, hygiene measures and mask use⁽²⁰⁾.

CONCLUSION

The QoL of patients undergoing cancer treatment during the COVID-19 pandemic was interpreted as fair in all the WHOQOL-BREF domains, where the Physical domain was identified as with the lowest score and the Psychological domain as with the highest. The statistical tests indicated that there was an association only between the Psychological domain and the "participants' age" variable. Therefore, no association was observed between QoL and the sociodemographic and clinical characteristics of the population under study.

The study contributes to reflections by the health team in the strategic planning of the care to be provided to cancer patients considering QoL maintenance in cases of a pandemic, as well as representing a starting point for new studies, in view of the limitation of having addressed only the population that attended the outpatient service during the data collection period, disregarding the reasons for the absences and the types of interference in the treatments reported during the pandemic.

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