

Financial Toxicity and Health-Related Quality of Life Among Cancer Patients: A Correlational Study*

* Paper financed by the Conselho Nacional de Desenvolvimento Científico e Tecnológico (CNPq)/Ministério da Ciência, Tecnologia e Inovações (MCTI) through the beginners research scholarship given to Hellen Karine Oliveira Cordeiro, through the research productivity scholarship given to the authors Adriano Marçal Pimenta, Maria de Fátima Mantovani, and Luciana Puchalski Kalinke.

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Received: 29/06/2023

Sent to peers: 02/09/2023

Approved by peers: 20/11/2023

Accepted: 19/01/2024

DOI: 10.5294/aqui.2024.24.1.6

Para citar este artículo / To reference this article / Para citar este artigo

Nogueira LA, Pimenta AM, Mantovani MF, Cordeiro HKO, Silva LS, Kalinke LP. Financial toxicity and health-related quality of life among cancer patients: A correlational study. Aquichan. 2024;24(1):e2416. DOI: <https://doi.org/10.5294/aqui.2024.24.1.6>

Theme: Health, well-being, and quality of life promotion

Contributions to the field: In professional nursing practice, it contributes to the care process based on understanding financial toxicity as an adverse event of cancer treatment; it can also encourage healthcare professionals and managers to propose care plans that minimize this effect. In teaching, it encourages the training of professionals who are aware of the multiple needs involved in the care process that can interfere with quality of life and financial toxicity. In research, it shows the applicability of feasible instruments for assessing and correlating financial toxicity with the quality of life of cancer patients using the public healthcare system.

Abstract

Introduction: Financial toxicity can increase healthcare costs, in addition to negatively impacting the therapeutic adherence and health-related quality of life of cancer patients within the public healthcare system. **Objective:** To correlate financial toxicity with the adults living with cancer health-related quality of life during the COVID-19 pandemic. **Materials and Methods:** This is an observational, cross-sectional, correlational study conducted with 179 patients receiving care from the Unified Health System in a capital city in southern Brazil. Data collection was performed from September 2021 to December 2022, using questionnaires containing sociodemographic and clinical data, and the Comprehensive Score for Financial Toxicity and the Functional Assessment of Cancer Therapy-General. The correlation between financial toxicity and health-related quality of life was assessed using Spearman's correlation coefficient at a 5 % significance level. **Results:** The correlation between financial toxicity and health-related quality of life was 0.41 (p-value < 0.001). The financial toxicity and health-related quality of life scores were 20.1/44 and 73.3/108, respectively. **Conclusion:** This study has found that the lower the financial toxicity, the better the patients' health-related quality of life. In this sense, recognizing the presence of financial toxicity in the treatment course could help improve adherence to treatment and health-related quality of life.

Keywords (Source: DeCS)

Financial stress; quality of life; neoplasms; unified health system; nursing.

4 Toxicidad financiera y calidad de vida relacionada con la salud en pacientes con cáncer: un estudio correlacional*

* Artículo financiado por el Conselho Nacional de Desenvolvimento Científico e Tecnológico (CNPq)/Ministério da Ciência, Tecnologia e Inovações (MCTI), por medio de beca de iniciación científica otorgada a Hellen Karine Oliveira Cordeiro, mediante beca de productividad en investigaciones a los autores Adriano Marçal Pimenta, Maria de Fátima Mantovani y Luciana Puchalski Kalinke.

Resumen

Introducción: la toxicidad financiera puede aumentar los costes en salud, así como impactar negativamente en la adherencia terapéutica y en la calidad de vida relacionada con la salud de los pacientes con cáncer en el sistema público de salud. **Objetivo:** correlacionar la toxicidad financiera con la calidad de vida relacionada con la salud de adultos con cáncer durante la pandemia covid-19. **Materiales y método:** estudio observacional, transversal y correlacional con 179 pacientes atendidos por el Sistema Único de Salud en una capital del sur de Brasil. La recolección de datos se realizó de septiembre de 2021 a diciembre de 2022, utilizando cuestionarios con datos sociodemográficos y clínicos, y el COmprehensive Score for Financial Toxicity y la Functional Assessment of Cancer Therapy-General. La correlación entre la toxicidad financiera y la calidad de vida relacionada con la salud se evaluó mediante el coeficiente de correlación de Spearman a un nivel de significación del 5 %. **Resultados:** la correlación entre la toxicidad financiera y la calidad de vida relacionada con la salud fue de 0,41 (valor $p < 0,001$). Las puntuaciones de toxicidad económica y calidad de vida relacionada con la salud fueron 20,1/44 y 73,3/108, respectivamente. **Conclusión:** este estudio reveló que cuanto menor era la toxicidad financiera, mejor era la calidad de vida relacionada con la salud de los pacientes. En este sentido, reconocer la presencia de toxicidad financiera en el itinerario terapéutico podría ayudar a mejorar la adherencia al tratamiento y la calidad de vida relacionada con la salud.

Palabras clave (fuente DeCS)

Estrés financiero; calidad de vida; neoplasias; Sistema Único de Salud; enfermería.

5 Toxicidade financeira e qualidade de vida relacionada à saúde de pacientes com câncer: estudo correlacional*

* Artigo financiado pelo Conselho Nacional de Desenvolvimento Científico e Tecnológico (CNPq)/Ministério da Ciência, Tecnologia e Inovações (MCTI), mediante bolsa de iniciação científica concedida a Hellen Karine Oliveira Cordeiro, e bolsa produtividade em pesquisa aos autores Adriano Marçal Pimenta, Maria de Fátima Mantovani e Luciana Puchalski Kalinke.

Resumo

Introdução: a toxicidade financeira pode elevar os custos com cuidados em saúde, além de impactar negativamente a adesão terapêutica e a qualidade de vida relacionada à saúde dos pacientes com câncer no âmbito do sistema público de saúde. **Objetivo:** correlacionar a toxicidade financeira com a qualidade de vida relacionada à saúde de adultos com câncer durante a pandemia da covid-19. **Materiais e método:** estudo observacional, transversal, correlacional com 179 pacientes atendidos pelo Sistema Único de Saúde, em uma capital do sul do Brasil. A coleta de dados ocorreu de setembro de 2021 a dezembro de 2022, utilizando questionários com dados sociodemográficos e clínicos, e o COmprehensive Score for Financial Toxicity e o Functional Assessment of Cancer Therapy-General. A correlação entre toxicidade financeira e qualidade de vida relacionada à saúde foi avaliada com o coeficiente de correlação de Spearman a um nível de significância de 5 %. **Resultados:** a correlação entre a toxicidade financeira e a qualidade de vida relacionada à saúde foi de 0,41 (p-valor $< 0,001$). O escore de toxicidade financeira e de qualidade de vida relacionada à saúde foi de 20,1/44 e 73,3/108, respectivamente. **Conclusão:** este estudo revelou que, quanto menor a toxicidade financeira, melhor a qualidade de vida relacionada à saúde dos pacientes. Nesse sentido, reconhecer a presença da toxicidade financeira no itinerário terapêutico poderá contribuir para melhorar a adesão ao tratamento e a qualidade de vida relacionada à saúde.

Palavras-chave (Fonte DeCS)

Estresse financeiro; qualidade de vida; neoplasias; Sistema Único de Saúde; enfermagem.

Introduction

The diagnosis of cancer causes physical and emotional suffering (1), which influences the lives of patients and their families, in addition to compromising multiple aspects of their lives, including financial ones. An American study (2) indicated that in 2018, in the United States of America, individuals diagnosed with cancer incurred approximately USD\$5.6 billion in direct and indirect costs when undergoing treatment, a situation that can lead to or increase the onset of an adverse event in cancer treatment, known as “financial toxicity.”

Financial toxicity is defined as the subjective financial difficulty and objective financial burden resulting from medical care for high-cost diseases (3), such as cancer. The concept includes, in addition to the common costs of treatment, such as medication, appointments, and tests, all the expenses that patients did not have until the onset of the disease, i.e., transportation, special meals, the need for a caregiver, loss of income due to being absent from work, and concerns about their financial future.

Among the consequences stemming from the presence of financial toxicity are non-adherence to treatment (4), debt, unemployment, and a deterioration in health-related quality of life (HRQoL [5, 6]). A study (7) that assessed the impact of financial toxicity on the HRQoL and health behaviors of American patients found that greater financial toxicity was significantly associated with anxiety, fatigue, pain, functional capacity, and social aspects, indicating a relationship between both. HRQoL reflects the individual’s perception of the condition as well as its consequences and treatments, that is, how the disease influences their life. In nursing, HRQoL has a positive impact on the patient’s perception of health (8).

Although the World Health Organization and the Pan American Health Organization have studied HRQoL and the factors related to it, no research initiative by these agencies covering the theme of financial toxicity has been found. The studies available in the international literature were conducted by groups of researchers affiliated with universities. In Brazil, studies evaluating financial toxicity are incipient, but reveal the existence of challenges and suffering resulting from treatment costs, even with the existence of the Unified Health System (SUS, for its initials in Portuguese). A study (9) evaluating the financial toxicity experienced by cancer patients receiving care at both a public and a private institution showed the presence of this adverse event in both samples. However, this study was unable to find a correlation between financial toxicity and HRQoL.

Within this context where cancer patients have needs that can lead to more financial expenses and where the COVID-19 pandemic has led to an economic crisis, with increased unemployment, reduced purchasing power, and compromised daily life activities, all of which are conditions that impact HRQoL, present study aimed to correlate financial toxicity with the HRQoL of adults with cancer during the COVID-19 pandemic.

Materials and Methods

This was an observational, cross-sectional, and correlational study, which followed the Strobe (Strengthening the Reporting of Observational Studies in Epidemiology) guidelines. It is part of a thematic project entitled “Financial toxicity in chronic illness,” performed by a group of researchers affiliated with the Nursing Department of the Federal University of Paraná, Brazil.

This study was performed from September 2021 to December 2022, on two weekdays in the afternoon, with the following inclusion criteria for participation: to be an adult of either sex, aged 18 or over and to have started cancer treatment five months ago or more. This period of five months was adopted given that, at the start of treatment, patients may not have suffered economic impacts yet. People with difficulties in communication and/or cognitive limitations in their medical records were excluded.

The sample was scaled to 170 participants using Fisher’s z-test to compare a correlation with a reference value, based on the following parameters: A statistical significance level of 5 %, a statistical power of 80 %, a correlation coefficient of 0.44 (reference value [10]), and a correlation coefficient in the case of a null hypothesis of 0.25. The sample was selected based on convenience, and all patients who were present during the data collection period were invited; however, two of them refused to participate.

Of the 181 patients who were eligible to participate in the study, a total of 179 from two different units participated: from the hematology and oncology outpatient clinic (143) and the inpatient department (36), both belonging to a public teaching hospital, fully funded by the SUS, located in a capital city in southern Brazil.

Data collection was conducted in person and three printed questionnaires were used: a) a sociodemographic and clinical questionnaire, developed and used in other studies (9, 11) by the authors, consisting of 14 questions related to age, sex, race, marital status, education, financial situation, time since diagnosis, medication use, alcohol consumption, and smoking; b) the Comprehensive Score for Financial Toxicity (COST), consisting of 12 items relating to financial condition, treatment costs, financial concerns, among others; c) the Functional Assessment of Cancer Therapy-General (FACT-G), consisting of 27 items, which measures the HRQoL of cancer patients through the domains of “physical, social, emotional, and functional well-being.” Both have been translated and validated for the Brazilian context (11, 12).

To measure financial toxicity using the COST questionnaire, the FACIT guideline was followed (13). Questions 2, 3, 4, 5, 8, 9, and 10 were inverted and item 12 was disregarded. The score ranged from 0 to 44, and the higher the score, the greater the financial well-being and the lower the financial toxicity. The financial tox-

icity score was divided into grades according to a Japanese study (14). The grades (from 0 to 3) reflect the impact suffered by patients. This can range from no impact – grade 0 (score above 26), to mild impact – grade 1 (score 14-25), moderate impact – grade 2 (score 1-13), and high impact – grade 3 (score 0). To measure the FACT-G score, the scoring guidelines of the questionnaire were used (15), whose score is the sum of the points for each domain and can range from 0 to 108.

During the data collection period, the researchers talked to the potential participants and explained how the study would be conducted. Once they had accepted to participate, the informed consent form was read and signed in two printed copies (one was handed to the participants and the other remained with the researcher, who kept it on file). Subsequently, the three questionnaires were distributed and the need for help to read and complete them was identified.

The data was analyzed using descriptive (mean, standard deviation) and inferential (t-Student or Mann-Whitney tests) analyses. The absolute and relative frequencies of sociodemographic and clinical characteristics were presented for the sample as a whole and were stratified by data collection site. Statistical differences were assessed using Pearson's chi-squared test. Means and standard deviations (SD), medians and interquartile ranges (IR) of the financial toxicity and HRQoL scores and their respective domains were presented for the sample as a whole and were stratified by data collection site.

The correlation between financial toxicity and HRQoL was measured using Spearman's coefficient. All the analyses were performed using the Stata software (version 13.1) at a statistical significance level of 5 %.

This study was reviewed and approved by the Research Ethics Committee of the *Hospital de Clínicas* of the *Universidade Federal do Paraná*, under opinion number 3.957.590. The questionnaires used for data collection were authorized for this purpose.

Results

Of the 179 study participants (total sample), 114 (63.7 %) were female, 103 (57.5 %) were under age 60, 94 (52.5 %) were married or in a stable union, and 145 (81.1 %) had an income of up to three times the Brazilian minimum wage. In terms of clinical data, 99 (55.3 %) participants stated that they did not have any comorbidities; of those who did, a total of 41 (22.9 %), systemic arterial hypertension was the most common; 122 (68.2 %) of them reported being on continuous medication (Table 1).

Regarding the diagnosis of neoplasms, 50 (27.9 %) participants had breast cancer and 30 (16.7 %) had leukemia. As for lifestyle habits, 128 (71.5 %) participants stated they did not practice any physical activity, 78 (43.6 %) were smokers, and 28 (15.6 %) consumed alcoholic beverages (Table 1).

Table 1. Patients' Demographic, Socioeconomic, Lifestyle, and Health Condition Characteristics. Curitiba, 2022

Characteristics	Location						p-value*
	Total		Inpatient		Outpatient		
	n	%	n	%	n	%	
Sex							< 0.001
Male	65	36.3	23	63.9	42	29.4	
Female	114	63.7	13	36.1	101	70.6	
Age (years)							
< 60	103	57.5	21	58.3	82	57.3	
From 18 to 29	6	3.3	1	2.8	5	3.5	
From 30 to 39	17	9.5	0	0.0	17	11.9	
From 40 to 49	30	16.8	9	25.0	21	14.7	
From 50 to 59	50	27.9	11	30.5	39	27.2	
≥ 60	76	42.5	15	41.7	61	42.6	
Marital status							0.278
Married	86	48.0	16	44.4	70	48.9	
In a stable union	8	4.5	0	0.0	8	5.6	
Single	42	23.5	16	44.4	26	18.2	
Divorced	23	12.8	2	5.6	21	14.7	
Widowed	20	11.2	2	5.6	18	12.6	
Occupation							0.181
CLT/civil servant	45	25.1	10	27.8	35	24.5	
Self-employed	32	17.8	5	13.9	27	18.9	
Unemployed	29	16.2	10	27.8	19	13.3	
Houseworker	21	12.9	2	5.6	21	14.7	
Retired	41	27.9	9	25.0	41	28.7	
Family income (times the national minimum wage)							0.738
Up to 1	76	42.5	16	44.4	60	41.9	
Without income	15	8.4	5	13.9	10	7.0	
1	61	34.1	11	30.5	50	34.9	
From 1 to 3	69	38.6	12	33.3	57	39.9	

Characteristics	Location						p-value*
	Total		Inpatient		Outpatient		
	n	%	n	%	n	%	
≥ 4	34	19.0	8	22.2	26	18.2	
From 4 to 10	29	16.2	6	16.7	23	16.1	
From 10 to 20	3	1.7	0	0.0	3	2.1	
> 20	2	1.1	2	5.5	0	0.0	
Practice physical activity							0.471
No	128	71.5	24	66.7	104	72.7	
Yes	51	28.5	12	33.3	39	27.3	
Smoker							0.046
No	101	56.4	15	41.7	86	60.1	
Yes	78	43.6	21	58.3	57	39.9	
Consume alcoholic beverages							0.746
No	151	84.4	31	86.1	120	83.9	
Yes	28	15.6	5	13.9	23	16.1	
Had cancer before							0.108
No	119	66.5	28	77.8	91	63.6	
Yes	60	33.5	8	22.2	52	36.4	
Have comorbidities							0.733
No	99	55.3	19	52.8	80	55.9	
Yes	80	44.7	17	47.2	63	44.1	
SAH	41	22.9	8	22.2	33	23.1	
DM	10	5.6	2	5.6	8	5.6	
SAH and DM	12	6.7	2	5.6	10	7.0	
Other conditions	17	9.5	5	13.8	12	8.4	
Continuous medication use							0.310
No	57	31.8	14	38.9	43	30.1	
Yes	122	68.2	22	61.1	100	69.9	

Notes: CLT – *Consolidação das Leis Trabalhistas* (in Brazil, this term means that a worker has a formal employment bond); SAH – systemic arterial hypertension; DM – diabetes mellitus; *p-value using Pearson's chi-squared test.

Source: Prepared by the authors.

Regarding the financial toxicity of the total sample, the mean score obtained was 20.1/44 (17.8/44 for inpatients and 20.7/44 for outpatients, both with grade one financial toxicity). Concerning HRQoL, the mean score obtained for the total sample was 73.3/108 (74.6/108 for inpatients and 73/108 for outpatients). Table 2 shows the relationship between financial toxicity and HRQoL.

Table 2. Financial Toxicity and HRQoL Scores of the Total Sample, from Inpatient to Outpatient sectors. Curitiba, 2022

Scores	Total		Location				p-value
	Mean (SD)	Median (IR)	Inpatient		Outpatient		
			Mean (SD)	Median (IR)	Mean (SD)	Median (IR)	
Financial toxicity							
Financial toxicity score	20.1 (8.6)	21 (14 – 27)	17.8 (9.0)	16 (11 – 25)	20.7 (8.4)	22 (14 – 27)	0.074 [†]
Financial toxicity summary item	1.7 (1.5)	2 (0 – 3)	1.9 (1.6)	3 (0 – 3)	1.6 (1.5)	1 (0 – 3)	0.322 [†]
Quality of life							
Physical well-being score	19.1 (6.4)	20 (14 – 24)	19.9 (6.9)	23 (14.5 – 24)	18.9 (6.3)	20 (14 – 24)	0.273 [†]
Social and family well-being score	19.1 (4.7)	21 (17 – 22)	20.0 (3.7)	21 (18 – 22)	18.9 (4.9)	20 (17 – 21)	0.161 [†]
Emotional well-being score	17.7 (5.1)	19 (14 – 22)	17.8 (5.5)	18 (12 – 23)	17.7 (5.5)	19 (14 – 22)	0.617 [†]
Functional well-being score	17.4 (5.1)	18 (14 – 21)	16.9 (5.1)	17 (13 – 19.5)	17.5 (5.1)	19 (14 – 21)	0.162 [†]
Total score for quality of life	73.3 (16.1)	76.8 (63 – 85)	74.6 (16.4)	77 (63 – 86)	73.0 (16.1)	76.3 (63.6 – 84)	0.845 [†]

Notes: SD – standard deviation; IR – interquartile range; [†]p-value of Student's t-test; [†]p-value of Mann-Whitney test.

Source: Prepared by the authors.

When relating financial toxicity to HRQoL, the Spearman correlation coefficient found in the total sample was 0.41 and the p-value was <0.001, which means there was positive significance. Considering the samples separately, the correlation in the inpatient sector was 0.33 with a p-value < 0.047 while in the outpatient sector, it was 0.43 with a p-value < 0.001.

Table 3 shows the correlation between the total HRQoL score and the domains that comprise it. The results show that, considering the three samples, the “emotional well-being” domain was significant and there was no correlation in the “social and family well-being” domain. In the inpatient sample, the “emotional well-being” domain was significant, while in the outpatient sample the “physical well-being”, “emotional well-being”, and “functional well-being” domains were significant.

Table 3. Correlation between the Total HRQoL Score and the Physical Well-Being, Social and Family Well-Being, Emotional Well-Being, Functional Well-Being Domains. Curitiba, 2022

HRQoL	Total		Location			
	Coefficient	p-value	Inpatient		Outpatient	
			Coefficient	p-value	Coefficient	p-value
Physical well-being score	0.36	< 0.001	0.25	0.142	0.40	< 0.001
Social and family well-being score	0.06	0.442	-0.01	0.942	0.09	0.291
Emotional well-being score	0.34	< 0.001	0.34	0.045	0.35	< 0.001
Functional well-being score	0.35	< 0.001	0.14	0.431	0.40	< 0.001
Total score for quality of life	0.41	< 0.001	0.33	0.047	0.43	< 0.001

Note: Spearman's correlation test.

Source: Prepared by the authors.

Discussion

The present study describes the correlation between financial toxicity and HRQoL in adults with cancer during the COVID-19 pandemic. It was performed on the basis that cancer is among the chronic non-communicable diseases with the highest costs associated with treatment, which could lead to financial toxicity and influence HRQoL.

It was possible to note that the sociodemographic data of the total sample in this study was similar to the data from the outpatient information system in 2022, when 10732 chemotherapy treatments were performed on female patients and 7226 on male patients (16). This data showed that more women underwent the treatment or were more likely to adhere to it or seek treatment earlier in the course of the disease.

Regarding age, the results found in the present study differ from those found in a Japanese study (17) but are similar to those found in a study conducted in China (18), which assessed the levels of financial toxicity and related risk factors in 594 cancer patients. The study in question found a higher ratio of participants aged 45-59.

In Brazil, people in this age range are economically active and part of the workforce. According to a leading Brazilian institute (19), in 2022, more than 108 million people in Brazil would be of working age. The occurrence of cancer at this stage of life can reduce income and intensify financial toxicity.

In addition, the COVID-19 pandemic may have aggravated the consequences of financial toxicity for cancer patients. A renowned Brazilian foundation emphasized that the pandemic led to a crisis of unprecedented proportions, where the population faced social and economic vulnerability (20), combined with the threat of the collapse of the SUS (21), which resulted in a financial burden on patients to cover treatment costs. On top of these issues stemming from the pandemic and the lack of financial resources, the fear of being infected by the virus may have intensified depression and anxiety.

A Brazilian study (22) which aimed to understand the feelings experienced by women who had been diagnosed with breast cancer found that, upon receiving the diagnosis, they experienced feelings such as despair, concern for their family, closeness to and fear of death, sadness, denial, faith in a cure, and acceptance. These feelings can be intensified in working age due to the possible loss of income and increased expenses caused by treatment. A study (23) conducted in an outpatient mastology clinic in the countryside of the state of São Paulo, Brazil, found that the diagnosis of cancer at a working age led the sample studied to be concerned about their personal and family finances and changes in their lifestyle. This fear may be more evident in women who live alone with their children, as they are the ones who have to support the household.

Even before they are diagnosed, cancer patients incur unexpected expenses, such as exams, medication, transportation, special meals, the need for special food or a caregiver, and sometimes a reduction in income due to absence from work, all of which have an impact on the family finances and highlight financial toxicity. This indicates that even patients receiving care through the SUS who do not pay for the treatment themselves absorb costs and are affected by financial toxicity.

Regarding financial toxicity, the results obtained are similar to those found in international studies, such as a Chinese study (24) that analyzed the financial toxicity of patients with breast cancer and obtained a score of 21. Similarly, a study (25) that investigated financial toxicity in 539 patients with renal cell carcinoma from 14 different countries obtained a financial toxicity score of 21.5. Likewise, a study conducted in Canada (26) with patients with advanced lung cancer obtained a mean score of 21, while a 2022 Argentinian study (27) with patients with lung cancer obtained a mean score of 20 (mild impact of financial toxicity).

In contrast, a Brazilian study (9) that assessed the financial toxicity of cancer patients in the period prior to the pandemic obtained a financial toxicity score of 18.95, while a Mexican study (28) that explored and analyzed the financial burden of cancer among the elderly and their families and/or caregivers obtained a mean score of 16.4 (28). The result found in this study may be

related to the support provided by the Brazilian government (29) during the global health crisis, which granted every citizen in a situation of vulnerability a monthly payment to cover their needs.

“Emergency aid” was a form of financial support provided during the pandemic to guarantee a minimum income for Brazilians, since some sectors of the economy were affected by the rules of isolation and social distancing. According to a Brazilian study (30) covering the pandemic and unemployment, the behavioral rules imposed during the pandemic have led to swift changes in the job market, with rigorous effects for 37.3 million people who lack formal employment and who do not have rights such as the Employment Guarantee Fund (better known by its acronym FGTS - *Fundo de Garantia por Tempo de Serviço*) and unemployment insurance, which are benefits intended to guarantee temporary financial assistance to workers who have been terminated without just cause.

Considering the samples in isolation and the financial toxicity scores, the results of the participants who received inpatient treatment may be related to financial concerns among them and the number of patients with an income of up to the minimum wage and those with no income in this sample.

A study (31) conducted in northern India that analyzed the financial toxicity and mental well-being of oral cancer survivors found that financial toxicity scores were lower among the unemployed. Also in this line of thought, a German study (32) that assessed whether financial toxicity was an issue for sarcoma patients, identifying the related risk factors, found that receiving a disability pension and being on sick leave were associated with higher odds of reporting financial toxicity.

The results of the correlation between financial toxicity and HRQoL indicate that the greater the financial well-being, the higher the HRQoL. These findings corroborate those found by an American study that measured financial toxicity and its association with quality of life in patients with advanced melanoma receiving immunotherapy and found a correlation of $r = .44$, $p < 0.00133$.

Similarly, a study (31) conducted in the United States, which measured the course of financial hardship at the start of treatment, at three and six months, and established the relationship with quality of life in cancer patients, found that less financial hardship was correlated with better HRQoL. In terms of the correlation between the total HRQoL score and the domains that comprise this construct, the results indicate that living together can be harmonious and beneficial regardless of the financial resources available.

The limitations of the present study lie in the size of the sample from the inpatient sector, which was restricted due to the limited turnover, as well as the lack of national literature to compare the findings in the various Brazilian regions.

Conclusion

Thus, it can be concluded that a grade one financial toxicity was found among adult inpatients and outpatients with cancer. In isolation, participants undergoing outpatient treatment had a higher financial toxicity score, which reflected greater financial well-being; in addition, the relationship between financial toxicity and HRQoL was significant, indicating that the lower the financial hardship, the higher the HRQoL. It is believed that the present study contributes to practice, as it highlights the presence of financial toxicity among patients receiving care from the SUS.

Furthermore, it is understood that knowing and recognizing financial toxicity as an adverse event of cancer treatment provides healthcare professionals and managers the conditions to devise a care plan that supports the patient.

Conflict of interests: Non declared.

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