Cogitare Enfermagem

ORIGINAL ARTICLE

SATISFACTION WITH NURSING CARE OF ONCOLOGY PATIENTS ON OUTPATIENT ANTINEOPLASTIC DRUGS

HIGHLIGHTS

1. Good User Satisfaction Index at the Antineoplastic Chemotherapy Outpatient Clinic.
2. User satisfaction with nursing care.
3. Complexity of the care provided to the most fragile users.

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ABSTRACT

Objective: Evaluate the satisfaction of outpatient oncology users taking antineoplastic drugs about nursing care. **Methods:** Exsectional study with a quantitative approach, carried out at the Chemotherapy Service of a university hospital located in Belém-PA – Brazil, with 200 users, from June 2019 to June 2022, through interviews and use of the Patient Satisfaction Instrument. Chi-square analysis, Pearson p-value, and chi-square analysis were applied, and the p-value ≤ 0.05 was considered. **Results:** Users reported good satisfaction in the overall average of the domains (>90%), highlighting the technical-professional domain, followed by the educational and confidence domains. The variables of clarification of medical guidelines, giving good advice, and taking the initiative after patient responses were associated with user satisfaction according to cancer topography and staff availability to those with different degrees of staging. **Conclusion:** This study assists managers in identifying and planning improvements in areas and services.

KEYWORDS: Neoplasia; Antineoplastic Drugs; Nursing Care; Patient Satisfaction; Public Health Services.

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INTRODUCTION

Cancer manifests itself with abnormal cell growth, which can invade distant organs (metastasis). It is the second leading cause of death by disease in the world[1]. Cancer is Brazil's main public health problem, with an estimated 704,000 new annual cancer cases for the triennium from 2023 to 2025[2].

Among the available treatments, antineoplastic drugs are common in clinical practice. Still, it brings toxicities that have repercussions in severe psychological burden, increased economic pressure, self-cognitive disturbance, and reduced self-efficacy, demanding considerable technical skills by professionals[3]. The treatment experience is unique to each patient and one of the main goals of healthcare professionals is to assist them in the best way and provide them with well-being during the therapeutic process[4-6]. For this, nursing must have technical-scientific knowledge, communication skills, and interpersonal relationships with patients and their families to meet the needs related to oncologic care[7-8].

Patient satisfaction is a subjective and individual assessment, dependent on many factors, and the interaction with the healthcare professional greatly impacts it. It is known that healthcare staff can influence how patients feel, views their experience, or can improve it. Therefore, this metric has been an important indicator of the quality of care provided by professionals in healthcare institutions[5,9].

Improvements in the quality of public oncology services have been little addressed in Brazil, especially in the North region. Pará has a low coverage rate of the Family Health Strategy (ESF), a large land area, and a low HDI, factors that reduce effective cancer prevention actions and impact the high rates of diagnosed advanced cases[10-11].

Although Projeto Expande[12], project for the expansion of oncologic assistance implanted in 2000 by the Ministry of Health (MH), has favored the creation of three High Complexity Oncology Assistance Units (UNACON) in the state of Pará, this still represents only 1.26% of the chemotherapy services in Brazil, which generates a high demand of patients served[13]. Therefore, this study aims to evaluate the satisfaction of the oncology user with outpatient antineoplastics with nursing care.

METHOD

This is an observational, cross-sectional analytical study with a quantitative approach based on the *Strengthening the Reporting of Observational Studies in Epidemiology* (STROBE)[14] tool, carried out at the Chemotherapy Service of a university hospital located in the northern region of Brazil, qualified by the MH as a UNACON. The chemotherapy outpatient clinic has six nurses and seven nursing technicians who work in the antineoplastic administration rooms to care for a daily average of 50 patients in two shifts (morning and afternoon).

The sample comprised users of the Unified Health System (SUS) assisted by the institution, with a histologically proven cancer diagnosis, age ≥ 18 years, with clinical conditions to answer the questions, with an indication for exclusive outpatient antineoplastic chemotherapy treatment at any stage of treatment. Participants with concomitant therapy with radiotherapy or who were clinically unable to answer the questionnaire were Participants with concomitant therapy with radiotherapy or without clinical conditions to answer the questionnaire were excluded.

The sample was established using the sample calculation performed in the *Epi Info* Version 7.2.2.16 program, in which a finite population of 430 users seen in 14 months was

considered, considering a 95% confidence level and 5% margin of error, arriving at the value of 201 users. The type of sampling was non-probabilistic, and those eligible were recruited according to spontaneous demand received in the service. The participants were approached individually and in isolation during the nursing consultation. The participant was approached and included in the study only once.

To obtain the data, a form was used that included sociodemographic data, personal background, and the Patient Satisfaction Instrument (PSI) developed by Risser, Hinshaw, and Atwood, translated and validated for Brazilian Portuguese by Oliveira. The PSI aims to measure patient satisfaction with the nursing care provided[15-16]. The form was elucidated and applied by undergraduate nursing students from the Federal University of Pará (UFPA).

The PSI is composed of 25 items grouped into three domains: technical-professional skill, with seven items (12, 13, 15, 16, 18, 20, 25) that assess the competence of the team to perform technical activities and the needs-based knowledge to complete the tasks of care; Trust, which contains 11 items (1, 3, 4, 5, 6, 9, 10, 14, 19, 22, 23) that assess the characteristics of the team that allow a constructive and comfortable interaction with the patient and the aspects of communication; Educational, constructed by seven items (2, 7, 8, 11, 17, 21, 24) referring to the staff's ability to provide information to patients, and which include the staff's responses to patients' questioning, their explanations of care, and demonstration of techniques. We chose to use this instrument because of its previous validation in Brazil and ease of application[16].

This instrument has direct and indirect questions, and the answer options were represented on a *Likert-type* measurement scale, with five alternatives ranging from "strongly agree" to "strongly disagree", with one neutral alternative that was excluded from the analysis. Thus, the higher the score, the higher the level of satisfaction[15-16].

The study's main hypothesis was to evaluate the correlation between user satisfaction and nursing service in the outpatient chemotherapy clinic. Sociodemographic, clinical, and pathological data were considered independent variables, while satisfaction was considered a dependent variable.

Data were initially collected for storage in a spreadsheet by double-checking in *Microsoft Excel® software*, version 2019. Subsequently, they were compiled for analysis in the *Statistical Package for Social Sciences* (SPSS) statistical software, version 25.0.

The data analysis was done using descriptive categories previously organized according to the proposed objectives. Descriptive analyses of the participants' sociodemographic, epidemiological, and clinical characteristics were performed using measures of central tendency (mean) and dispersion (standard deviation) for quantitative variables. Categorical variables were described using frequencies and percentages.

The ISP responses were grouped into two domains: "Agree" and "Disagree" to decrease the number of variables and increase statistical power. Each item had a minimum score of zero and a maximum score of 200, referring to the number of users. The mean score for satisfaction was calculated according to the participant's favorable satisfaction responses in each item and domain.

The chiPearson's chi-square test was used for the association analyses between two independent categorical variables. Probability (p-value) was considered significant for all statistical tests when ≤ 0.05.

This study was approved with opinion number 3.234.913 by the Oncology Research Center at UFPA.

RESULTS

In this study, 200 users participated and one (1) participant dropped out. Table 1 shows the profile of the participants, which was composed of women 145 (72.5%) under 60 years old 145 (72.5%), mixed race 145 (72.5%), married/stable union 139 (69.5%), low education 96 (48%). As for the type of cancer: breast 83 (41.5%), digestive 77 (38.5), reproductive 18 (9%), other 13 (11%) stage I 68 (34%). As a result of the Mean number of chemotherapy cycles already performed, 2.37±4.71, and Treatment time (months): 6,22±7,11.

Table 1 - Sociodemographic and clinical profile of the participants. Belém, PA, Brazil, 2023

Variables	Frequency	Percentage
Gender		
Male	55	27.5
Female	145	72.5
Age Group		
≤ 60 years	145	72.5
≥ 61 years old	55	27.5
Color		
Yellow	3	1.5
White	25	12.5
Black	27	13.5
Brown	145	72.5
Marital status		
Single	61	30.5
Married/stable union	139	69.5
Education		
Elementary School	96	48.0
High School	79	39.5
Higher Education	25	12.5
Type of cancer		
Digestive Tract Cancer	77	38.5
Breast cancer	83	41.5
Cancer of the reproductive system	18	9.0
Lung Cancer	9	4.5
Other	13	6.5
TNM		
I	68	34.0
II	34	17.0

III	40	20.0
IV	58	29.0
Average no. of chemotherapy cycle	2.37±4.71	
Treatment time (months)	6.22±7.11	

Source: The authors (2023).

Table 2 shows the patients' satisfaction per survey item for a better visualization of the level of agreement/disagreement between the survey questions, in which a high average satisfaction of the domains can be seen (>90%), highlighting the satisfaction related to the technical-professional domain (97.57%), followed by the educational domain (91.57%) and trust (90.36%). Variables with no responses were excluded from the analysis. Each patient corresponds to one point; questions with positive answers were considered satisfactory.

Table 2 - Patient satisfaction by survey item and grouped into three domains. Belém, PA, Brazil, 2023

	Items	Questions	Agree n(%)	Disagree n (%)	Satisfaction
TRUST	Item 1	The staff should be more attentive than they are	20 (10.5)	170 (89.5)	170
	Item 3	The staff are nice people to have around	193 (99)	2 (1)	193
	Item 4	We feel free to ask questions to the staff	188 (97.4)	5 (2.6)	188
	Item 5	The staff should be friendlier than they are	19 (9.9)	172 (90.1)	172
	Item 6	The team can understand how I feel	187 (98.9)	2 (1.1)	187
	Item 9	When I need to talk to someone, I can tell my problems to the team	159 (93.5)	11 (6.5)	159
	Item 10	The staff is always too busy to waste time talking to me	4 (2.1)	189 (97.9)	187
	Item 14	The staff understands in listening to the patient's problems	181 (99.5)	1 (0.5)	181
	Item 19	The staff does not have enough patience	5 (2.5)	194 (97.5)	194
	Item 23	Just talking to someone from the team makes me feel better	169 (97.7)	4 (2.3)	169
	Item 22	I am tired of the staff talking to me as if I were a lesser person	3 (1.6)	188 (98.4)	188
		Average /DP and percentage	-	-	180.72 (11.45) 90.36%

HAB. TECHNICAL	Item 12	The staff makes a point of showing me how to follow the medical guidelines	195 (98.5)	3 (1.5)	195
	Item 13	The staff is always too disorganized to appear calm	2 (1)	196 (99)	196
	Item 15	The staff gives good advice	192 (99)	2 (1)	192
	Item 16	The team really knows what they are talking about	199 (100)	0	199
	Item 18	The staff is very slow to do things for me	4 (2)	194 (98)	194
	Item 20	The team does not do its job properly	3 (1.5)	197 (98.5)	197
	Item 25	The team is skilled in the procedures	193 (97)	6 (3)	193
		Average /DP and percentage	-	-	195.14 (2.41) 97.57%
HAB. EDUCATIONAL	Item 2	Staff often feel that they are not able to understand the medical explanation of their treatment, so they simply do not bother to explain	2 (1.1)	179 (98.9)	179
	Item 7	The team explains things in simple language	195 (97.5)	5 (2.5)	195
	Item 8	The staff asks a lot of questions, but when they get the answer, they don't seem to do anything about it	1 (0.5)	183 (99.5)	183
	Item 11	I would like the staff to give me more information about my treatment	47 (24.7)	143 (75.3)	143
	Item 17	It is always easy to understand what the team is saying	197 (98.5)	3 (1.5)	197
	Item 21	The team guides at the right speed	195 (98.5)	3 (1.5)	195
	Item 24	The staff always gives a full and sufficient explanation of why the tests were ordered	190 (95.5)	9 (4.5)	190
		Average/DP and percentage			183.14 (18.92) 91.57%

The authors (2023).

Table 3 shows the participant's satisfaction with the nursing care provided according to the topography of the cancer being treated during the survey. Each value shown in the table configures the Agree and Disagree responses, respectively, according to the participant's cancer topography and p-value.

Table 3 – Participants' satisfaction regarding nursing care provided according to cancer topography. Belém, PA, Brazil, 2023

Items	Digestive Tract	Mama	Reproductive Apparatus	Lung	Other	p-value
			Agree/Disagree			

TRUST	Item 1	65/6	72/8	16/2	7/2	10/2	0.710
	Item 3	1/72	1/81	0/18	0/9	0/13	0.971
	Item 4	3/69	2/80	0/18	0/8	0/13	0.781
	Item 5	64/8	75/5	16/2	7/2	10/2	0.482
	Item 6	1/72	1/76	0/18	0/8	0/13	0.971
	Item 9	4/57	6/66	0/16	0/8	0/12	0.716
	Item 10	75/1	75/3	18/0	8/0	13/0	0.690
	Item 14	1/68	0/76	0/15	0/9	0/13	0.800
	Item 19	76/1	80/3	18/0	7/1	13/0	0.294
	Item 22	72/3	77/0	18/0	8/0	13/0	0.318
	Item 23	1/64	2/73	1/15	0/6	1/11	0.788
TECHNICAL	**Item 12**	**0/77**	**0/82**	**3/14**	**0/9**	**0/13**	**0.000002**
	Item 13	73/2	83/0	18/0	9/0	13/0	0.507
	Item 15	**0/74**	**0/80**	**2/16**	**0/9**	**0/13**	**0.001**
	Item 16	0/77	0/82	0/18	0/9	0/13	-
	Item 18	74/3	80/1	18/0	9/0	13/0	0.654
	Item 20	75/2	82/1	18/0	9/0	13/0	0.864
	Item 25	1/76	3/79	1/17	1/8	0/13	0.447
EDUCACIONAL	Item 2	70/1	79/1	15/0	6/0	9/0	0.982
	Item 7	3/74	2/81	0/18	0/9	0/13	0.801
	Item 8	**73/0**	**78/0**	**16/0**	**7/0**	**9/1**	**0.002**
	Item 11	54/19	64/14	12/6	6/3	7/5	0.296
	Item 17	2/75	1/82	0/18	0/9	0/13	0.864
	Item 21	2/75	1/81	0/18	0/8	0/13	0.869
	Item 24	3/74	6/77	0/17	0/9	0/13	0.505

The authors (2023).

In the scope of patient satisfaction according to the tumor staging (TNM), the data in Table 4 is shown. There was statistical significance in item 10, which refers to the time the nursing staff spends talking to the patient, with the highest predominance between early and advanced stages, respectively.

Table 4 – Participants' satisfaction regarding nursing care provided according to tumor staging (TNM). Belém, PA, Brazil, 2023

TNM	I	II	III	IV	p-value
			Agree/Disagree		

TRUST	Item 1	59/5	29/4	36/2	46/9	0.296
	Item 3	0/67	1/33	0/36	1/57	0.462
	Item 4	3/65	1/33	0/36	1/54	0.573
	Item 5	59/5	30/3	37/3	46/9	0.273
	Item 6	1/61	1/33	0/38	0/55	0.507
	Item 9	1/57	3/23	3/33	4/46	0.300
	Item 10	**66/0**	**30/3**	**39/1**	**54/0**	**0.014**
	Item 14	1/58	0/30	0/38	0/55	0.553
	Item 19	67/1	32/2	40/0	55/2	0.371
	Item 22	65/1	33/0	36/1	54/1	0.836
	Item 23	2/59	1/26	0/38	1/46	0.708
TECHNICAL	Item 12	2/66	0/34	0/39	1/56	0.558
	Item 13	67/0	34/0	39/1	56/1	0.525
	Item 15	2/63	0/33	0/39	0/57	0.260
	Item 16	0/68	0/34	0/40	0/57	-
	Item 18	65/2	34/0	39/1	56/1	0.781
	Item 20	68/0	34/0	39/1	56/2	0.346
	Item 25	2/65	0/34	2/38	2/56	0.652
EDUCACIONAL	Item 2	64/1	32/0	36/1	47/0	0.602
	Item 7	3/65	0/34	1/39	1/57	0.565
	Item 8	65/0	32/0	36/1	50/0	0.262
	Item 11	45/20	29/3	29/10	40/14	0.146
	Item 17	1/67	0/34	1/39	1/57	0.847
	Item 21	1/66	0/34	1/39	1/56	0.848
	Item 24	2/65	2/32	4/36	1/57	0.227

The authors (2023).

DISCUSSION

The study sample had a predominance of females, married/stable union, with little education and a breast cancer diagnosis. These findings corroborate the cancer scenario in the country, in which the profile presented for women shows the predominance of female breast cancer in all geographic regions. The most important risk factor is age over 50. Other risk factors are associated with hormonal and reproductive conditions, such as nulliparity, late pregnancy, and shorter breastfeeding period; behavioral, such as obesity, alcohol intake, and physical inactivity; occupational, such as night work and radiation, for example, X- and gamma rays; as well as genetic and hereditary conditions (5 to 10% of cases)[2]. In comparison between the levels of satisfaction and the profile of the participants, no statistical differences were identified in the level of education. Nevertheless, a research developed in a reference public hospital for treating cardiopulmonary diseases in Fortaleza-CE, identified that patients with a higher level of schooling had a high level of satisfaction with nursing care, compared to those with a low level of schooling[18]. Low education instigates

health system user behavior that reflects on daily habits and health at the individual and federal levels and influences the Human Development Index (HDI). In countries with high HDI, the impact on cancer incidence and mortality rates is seen in preventive actions, early detection, and treatment. In contrast, these rates continue to increase or remain stable in developing countries. Therefore, the challenge for these countries is to utilize better resources and efforts to make cancer control more effective[2].

A good satisfaction index is identified when analyzing user satisfaction for the ISP domains. Similar results were found in a survey conducted in Maranhão with 365 users diagnosed with cancer, which aimed to evaluate the satisfaction of the elderly receiving cancer treatment about nursing care during hospitalization[19]. These results also coincide with a survey conducted in the state of Minas Gerais, in which patients admitted to a reference hospital in medium and high complexity reported satisfaction with the nursing care received, evaluated by the same instrument applied in our study[20]. It was also verified that there was a good user satisfaction rate with the nurses' care in a research developed in the Medical Clinic of a University Hospital[16].

Patient satisfaction can be influenced by several factors, such as: having to submit to hospital rules and routines, getting used to the environment, the positive and negative anxieties developed by the patient, the difficulties in dealing with the cancer diagnosis, expectations and hopelessness regarding the treatment and prognosis of the disease. These factors are directly related to the patient's feelings and way of coping with the treatment[22].

The interaction with the professionals involved in the care and aspects related to the services, such as access, cleanliness, organization, physical and organizational structure, can also interfere with the patients' satisfaction. Satisfaction is believed to be directly related to patients' expectations about care[21].

The study results show that the patient's evaluation of the nursing team's assistance is based not only on technical procedures, but also on the moments that reverberate trust or empathy on the professional's part in the assistance performance. The valuation of expressive care can be evaluated differently by people, because this factor is related to personal uniqueness. It is worth saying that "being well cared for" represents being considerate of others, but technical care is not dissociated from expressive care[22].

Regarding the technical-professional domain, the two situations that obtained p-values were: "The staff makes a point of showing me how to follow medical guidelines" and "The staff gives good advice." The aspects of the care provided that are analyzed in this category are: organizational capacity, professional skills, ability to understand the pathologies and treatments, and mastery of technical and scientific knowledge. It denotes that the participants believe in the technical-scientific knowledge of the professionals responsible for the care, placing good satisfaction in the technical capacity of the team[19].

A research in Maranhão showed that the topics that obtained the highest averages in the technical-professional domain were: "The nurse makes a point of showing me how to follow medical guidelines "[16]. In a study carried out in Minas Gerais, two evaluations with the highest average were identified in the professional domain: "The nurse gives good advice" and "It is always easy to understand what the nurse is saying", in agreement with our study[20].

Thus, technical competence influences user satisfaction, as does skill, teaching about care, providing timely care, and respecting the patient's needs. Therefore, the team's role in the care process establishes a relationship of trust, security, commitment, and respect[23].

The adequate interpersonal relationship between the team and the patient allows the identification of care needs, the clarification of possible effects of the treatment, and the way to manage them, contributing to reducing anxiety and increasing adherence to therapy. It is emphasized that the team needs to develop its communication skills, remember that

technology is important when the human aspect is considered and that a good relationship between client and service provider is a differential in the quality of care[19].

As a limitation of this study, the difficulty of some users to identify each professional within the nursing team and the reduced data collection due to the lockdown by the COVID-19 epidemic are cited. There may be some response bias for fear that the answers will influence the local health care team's service to patients, who were asked about their satisfaction with the service while they were still using the health care system.

CONCLUDING REMARKS

A good index of user satisfaction with the care provided by the nursing staff of an antineoplastic chemotherapy outpatient clinic at a High Complexity Oncology Care Unit was evidenced. There was an association of user satisfaction with the domains of staff technical skills, followed by educational skills and confidence in the variables of cancer topography and tumor staging.

It is relevant to evaluate user satisfaction to improve the quality of service regarding technical skills, education, and interpersonal relationships (trust), all of which are relevant to the reception and well-being of this type of user.

In the field of Education, this study motivates the development of new scientific research on the management of cancer patient care. In the assistance entente, surveys emphasizing satisfaction regarding health care can engender the identification and planning of improvements in the areas and services by the managers, contributing to the increase in the quality of care.

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