Original Article

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HEALTH-RELATED QUALITY OF LIFE AND THERAPEUTIC ADHERENCE IN BREAST AND PROSTATE CANCER

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ABSTRACT

Objective: to correlate health-related quality of life and adherence to treatment of patients with breast and prostate cancer.
Method: an exploratory, descriptive and cross-sectional study, with a quantitative approach, conducted with 305 patients with breast and prostate cancer, in a state oncology hospital in Paraíba, Brazil, between June and November 2019. For data collection, a semi-structured instrument was used to obtain data regarding the sociodemographic and clinical profile, from the European Organization for Research and Treatment of Cancer Quality of Life Questionnaire "core" 30 items, from the specific module Quality of Life Questionnaire-Breast Cancer, and from the Adherence Determinants Questionnaire. Data analysis was performed using descriptive and inferential statistics.
Results: the correlation between health-related quality of life and adherence of patients with prostate cancer showed statistical significance ($p \leq 0.05$) between the Global Health Scale and the Functional Scale, Intentions domain; emotional function and intentions; insomnia and subjective norms; financial difficulty and subjective norms. In women, there was statistical significance ($p \leq 0.05$) between role performance and subjective norms; fatigue and intentions; financial difficulty and total adherence; sexual desire, sexual satisfaction and perceived support/severity; breast symptoms and intentions.
Conclusion: health-related quality of life directly impacts on treatment adherence of patients with breast and prostate cancer.

DESCRIPTORS: Breast neoplasms. Prostate neoplasms. Quality of life. Treatment adherence and compliance. Oncology nursing.

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QUALIDADE DE VIDA RELACIONADA À SAÚDE E ADESÃO TERAPÊUTICA NOS CÂNCERES DE MAMA E PRÓSTATA

RESUMO

Objetivo: correlacionar a qualidade de vida relacionada à saúde e a adesão ao tratamento de pacientes com câncer de mama e próstata.
Método: estudo exploratório, descritivo e transversal, com abordagem quantitativa, realizado com 305 pacientes com câncer de mama e de próstata, em hospital oncológico de referência estadual, na Paraíba, Brasil, entre junho e novembro de 2019. Para coleta de dados, utilizou-se de instrumento semiestruturado para obtenção de dados referentes ao perfil sociodemográfico e clínico, do questionário *European Organization for Research and Treatment of Cancer Quality of Life Questionnaire* "core" 30 itens, do módulo específico *Quality of Life Questionnaire-Breast Cancer* e Questionário de Determinantes de Adesão. A análise dos dados foi realizada por meio da estatística descritiva e inferencial.
Resultados: a correlação entre a qualidade de vida relacionada à saúde e a adesão de pacientes com câncer de próstata mostrou significância estatística (p≤0,05) entre a Escala de Saúde Global e a Escala Funcional, domínio Intenções; função emocional e intenções; insônia e normas subjetivas; dificuldade financeira e normas subjetivas. Nas mulheres, houve significância estatística (p≤0,05) entre desempenho de papéis e normas subjetivas; fadiga e intenções; dificuldade financeira e adesão total; desejo sexual, satisfação sexual e apoio/severidade percebida; sintomas da mama e intenções.
Conclusão: a qualidade de vida relacionada à saúde impacta diretamente a adesão ao tratamento de pacientes com câncer de mama e de próstata.

DESCRITORES: Neoplasias da mama. Neoplasias da próstata. Qualidade de vida. Cooperação e adesão ao tratamento. Enfermagem oncológica.

CALIDAD DE VIDA RELACIONADA A LA SALUD Y ADHERENCIA TERAPÉUTICA EN LOS CÁNCERES DE MAMA Y DE PRÓSTATA

RESUMEN

Objetivo: correlacionar la calidad de vida relacionada con la salud y la adherencia al tratamiento de pacientes con cáncer de mama y de próstata.
Método: estudio exploratorio, descriptivo y transversal, con enfoque cuantitativo, realizado con 305 pacientes con cáncer de mama y de próstata, en un hospital oncológico estatal de Paraíba, Brasil, entre junio y noviembre de 2019. En la recolección de datos, se utilizó un instrumento estructurado para la obtención de datos sobre el perfil sociodemográfico y clínico, el cuestionario del *European Organization for Research and Treatment of Cancer Quality of Life Questionnaire* "*core*" 30 itens, del módulo específico *Quality of Life Questionnaire-Breast Cancer*, y el Cuestionario de Determinantes de Adhesión. El análisis de datos se realizó por medio de estadística descriptiva e inferencial.
Resultados: la correlación entre la calidad de vida relacionada con la salud y la adherencia de los pacientes con cáncer de próstata mostró significancia estadística (p≤0.05) entre la Escala de Salud Global y la Escala Funcional, dominio Intenciones; función e intenciones emocionales; insomnio y normas subjetivas; dificultad financiera y normas subjetivas. En las mujeres, hubo significación estadística (p≤0.05) entre el desempeño de roles y las normas subjetivas; fatiga e intenciones; dificultad financiera y adhesión total; deseo sexual, satisfacción sexual y apoyo / severidad percibidos; síntomas de la mama e intenciones.
Conclusión: la calidad de vida relacionada con la salud tiene un impacto directo en la adherencia al tratamiento en pacientes con cáncer de mama y próstata.

DESCRIPTORES: Neoplasias de mama. Neoplasias de próstata. Calidad de vida. Cumplimiento y adherencia al tratamiento. Enfermería ocológica.

INTRODUCTION

Cancer currently ranks second in causes of death in Brazil and represents a complex public health problem, due to its epidemiological and socioeconomic magnitude. The National Cancer Institute estimates the occurrence of 625,000 new cases between 2020 and 2022, in which breast and prostate tumors remain as the most prevalent in the population, except for non-melanoma skin cancer.[1]

Experiencing cancer is exhausting because, in addition to dealing with the confirmation of the diagnosis, which brings changes in various life spheres, the patient also faces problems and difficulties arising from treatment, such as the side effects that generate suffering and can exert an influence on Quality of Life (QoL).[2]

QoL is defined by the World Health Organization (WHO) as a concept that encompasses physical and psychological health, independence and social interactions[3] and, when related to diseases and health interventions, it is called Health-Related Quality of Life (HRQoL). With regard to HRQoL in cancer, the Europe Organization for Research and Treatment of Cancer (EORTC) conceptualizes it as a multidimensional construct that contemplates disease, symptoms related to treatment, physical, psychological and social functioning.[4]

In patients with breast cancer, HRQoL can be impaired in several dimensions, due to emotional, physical, social and family problems.[5] Mastectomy, whether total or partial, can cause losses in the performance of daily and work activities, resulting from movement limitations imposed by pain and lymphedema.[6]

In chemotherapy, women can experience different side effects, including fatigue, poor sleep quality, pain, nausea and vomiting, diarrhea and/or constipation and alopecia,[7] while in radiotherapy, the most frequent complaint is radiodermatitis.[8] These effects have negative impacts on sexuality, self-image, motherhood and femininity,[9] causing harms to the affective and social life.

In cases of prostate cancer, radical prostatectomy is indicated as the gold standard for treatment; however, it can cause harms to QoL, due to urinary incontinence and erectile dysfunction. In addition to that, after the radiotherapy sessions, there can be irritation of the rectum, narrowing of the urethra, dysuria, diarrhea and hot flashes. These complaints can have repercussions on the man's life, compromising the ideal of virility and masculinity, aspects that are culturally valued in the male population.[10]

In this sense, changes in HRQoL can negatively influence treatment adherence rates,[11–12] as shown by a study that evidenced that the negative impacts of chemotherapy on HRQoL were related to low satisfaction and therapeutic adherence.[1] According to the WHO, therapeutic adherence is the degree to which a person's behavior corresponds to the recommendations of a health care provider, being influenced by socioeconomic factors, related to the health system and team, the disease, the treatment and the patients themselves.[13]

Non-adherence results in high rates of therapeutic failure, such as recurrences, disease progression and death, causing high costs to the health system.[13] In the case of cancer, there is usually an inadequate therapeutic response, likely worsening of the clinical condition and tumor progression into metastases.[1]

Identifying the factors that influence adherence represents an important subsidy for the development of interventions aimed at improving patients' behaviors in relation to therapy.[14] Thus, the assessment of HRQoL becomes relevant, since it establishes the appropriate management of side effects and facilitates the planning of activities, favoring adherence to the therapy and its maintenance.[15]

Given the above and the scarcity of studies evaluating HRQoL and its relation with adherence to cancer treatment, the objective of the research was to correlate HRQoL and adherence to the treatment of patients with breast and prostate cancer.

METHOD

This is an exploratory, descriptive and cross-sectional study, with a quantitative approach, carried out in a state hospital that is a reference for cancer treatment in João Pessoa, Paraíba, Brazil. The population consisted of adults and older adults diagnosed with breast and prostate cancer who underwent chemotherapy or radiotherapy treatment at that service, except for patients with prostate cancer undergoing chemotherapy, due to low demand.

Sample calculation was performed with a specific formula for group comparison, based on a 95% significance level and test power (80%), pre-fixed in Analysis of Variance (ANOVA), in the R statistical software. Thus, the number of patients in the Breast cancer in chemotherapy, Breast cancer in radiotherapy, and Prostate cancer in radiotherapy groups were allocated in a balanced way, 102 being necessary in each chemotherapy group and 101 in the radiotherapy group, corresponding to 303 participants.

The inclusion criteria were defined as follows: being 18 years old or more, diagnosis of breast or prostate cancer and undergoing chemotherapy treatment, having performed at least four sessions (weekly or 21-day cycles), or radiotherapy, with at least 20 sessions, thus with a minimum of one month of treatment. The study excluded patients under palliative treatment, on hormone therapy, diagnosed with metastasis, who had severe communication deficits, and who presented clinical complications at the time of data collection and cognitive deficits, being assessed by the Mini Mental State Examination.[16]

Data was collected between June and November 2019, through individual interviews. The patients were approached in the waiting room for radiotherapy and in the medication rooms for chemotherapy, in the morning and afternoon shifts. Each interview lasted a mean of 30 minutes. In order to clarify the research objectives and purpose, an initial approach was carried out in which these aspects were explained to the patients and, at the end, participation and signature of the Free and Informed Consent Form were requested.

HRQoL was assessed using the European Organization for Research and Treatment of Cancer Quality of Life Questionnaire “core” 30 items (EORTC QLQ-C30), validated and adapted for the Brazilian population, an instrument composed of 30 questions with answers on a *Likert* scale, in which items from 1 to 28 correspond to 1 - no, 2 - little, 3 - moderately and 4 - very much; and, for questions 29 and 30, the values range from one (very bad) to seven (very good).[17]

This questionnaire is divided into three scales: Functional Scale (physical function, role/functional performance, emotional, cognitive and social function, in which the higher the score, the better the HRQoL), Symptom Scale (fatigue, nausea and vomiting, dyspnea/shortness of breath, insomnia, loss of appetite, constipation, diarrhea and financial difficulty, in which the higher the score, the worse the HRQoL), and Global Health Scale, in which the higher the score, the better the HRQoL. Scores are calculated separately for each subscale and all range from zero to 100.[17]

Regarding the patients diagnosed with breast cancer, the specific complementary module Quality of Life Questionnaire - Breast Cancer (EORTC QLQ-BR23) was also applied, which has 23 questions with answers in a *Likert* format, varying in four levels (1 - no, 2 - little, 3 - moderately and 4 - very much).[17]

This module is distributed in two scales: Functional Scale (sexuality and body image, divided into domains of body image, future perspectives, sexual function and sexual satisfaction/pleasure) and Symptoms Scale (side effects, concern about hair loss, symptoms related to the arm and breast). The final score of each scale ranges from zero to 100, with better QoL for the Functional Scale, the closer to 100, the better QoL, on the symptomatic scale, according to greater proximity to zero.[17]

Adherence to treatment was assessed by the Adherence Determinants Questionnaire, a scale with 38 items, distributed in the respective domains, with answers ranging from 1 to 5 (strongly agree, agree, neither agree nor disagree, disagree and strongly disagree). The points of each domain should be transformed into a score from zero to 20, totaling a maximum of 100, being considered from zero to 40, low adherence; from 41 to 70, medium adherence; and above 70, high adherence.[18]

This questionnaire consists of five domains: 1) Interpersonal aspects of care - portrays the relationship between patient and health professional; 2) Perceived Susceptibility - deals with the client's perception of vulnerability to cancer, as well as the cost-benefit ratio of adherence; 3) Subjective norms - refers to the support of the personal and family network for adherence to cancer treatment; 4) Intentions - addresses the client's desire to adhere to the treatment; and 5) Support/Perceived severity - refers to the patient's perception of the severity of the disease and the recognition of the need for support or not from social networks.[18]

The collected data were processed by the *Statistical Package for the Social Science* for *Windows* software, version 22.0, and descriptive and inferential analyses were performed. The *Kolmogorov-Smirnov* test was used to verify the normality of the numerical variables. The correlation among the scales was performed using *Spearman*'s correlation coefficient. For all the analyses, the significance level was set at 5% ($p \leq 0.05$).

RESULTS

Among the participants, there was predominance of females (66.9%), due to the constitution of the selected groups, aged between 50 and 69 years old (56.1%), brown skin color/race (38.0%), married or in a stable relationship (60.0%), with 13 or more years of study (42.3%), with some religion (97.0%), retired or receiving benefits (36.4% and 36.1%, respectively), with personal and family income between one and two minimum wages (75.1% and 86.2%, respectively), and living with a spouse and child (41.6%).

Regarding the clinical condition of the patients, the majority had breast cancer (66.9%), diagnosed one or two years ago (93.1%), undergoing radiotherapy treatment (66.2%), having performed from 20 to 29 sessions (50.5%), once a day (66.2%), with a history of previous treatment (55.7%) of surgery (82.0%), who highlighted transportation as the main difficulty (43.3%), and reported absence of a companion (60.0%). Most of them presented between one and two comorbidities (54.8%), with emphasis on arterial hypertension (44.6%) and diabetes mellitus (23.3%).

The correlation between the HRQoL questionnaires and the treatment adherence domains showed significant results. In patients with prostate cancer, the Global Health Scale and Functional Scale of the EORTC QLQ C-30 showed a positive and significant correlation ($p \leq 0.05$) with the Intentions domain, indicating that the better the HRQoL in the global and functional aspect, the greater the intention to adhere to treatment. Among the breast cancer patients, the EORTC QLQ C-30 scales did not show any correlation with the adherence domains (Table 1).

Table 1 – Correlation between the treatment adherence domains and subscales of the health-related quality of life questionnaire in patients with breast and prostate cancer. João Pessoa, Brazil, 2019. (n=305)

	Adherence to treatment	Quality of Life					
		Global Health Scale		Functional Scale		Symptom Scale	
		r	p*	r	p*	r	p*
Prostate	Interpersonal aspects of care	-0.003	0.973	-0.105	0.296	0.142	0.155
	Perceived susceptibility	0.005	0.957	-0.047	0.639	-0.047	0.641
	Subjective norms	-0.023	0.817	0.017	0.863	0.024	0.816
	Intentions	**0.239**	**0.016**	**0.285**	**0.044**	-0.123	0.220
	Support/Perceived severity	0.127	0.207	0.028	0.784	-0.028	0.783
	Total	0.122	0.223	0.009	0.928	-0.037	0.712
Breast	Interpersonal aspects of care	-0.077	0.274	-0.059	0.401	-0.030	0.673
	Perceived susceptibility	-0.033	0.636	-0.021	0.764	0.015	0.836
	Subjective norms	0.112	0.110	0.113	0.109	-0.103	0.143
	Intentions	0.007	0.924	0.109	0.122	0.052	0.457
	Support/Perceived severity	0.019	0.349	-0.078	0.265	-0.052	0.230
	Total	0.045	0.521	0.058	0.409	-0.119	0.204

**Pearson*'s Correlation Test.

Regarding the correlation between quality of life and adherence to treatment, it was verified that the patients with prostate cancer showed positive and significant correlations ($p \leq 0.05$) between the Emotional function and the Intentions domain; between Insomnia and the Subjective norms domain; and between Financial difficulty and Subjective norms. In the patients with breast cancer, there was a positive correlation with statistical significance ($p \leq 0.05$) between the Role performance and the Subjective norms domain; and negative between Fatigue and the Intentions domain, as well as between Financial difficulty and Total adherence (Table 2).

In the correlation between the subscales of the EORTC QLQ BR-23 quality of life module and the treatment adherence domains, no statistical significance was identified. However, in the correlation among the domains of this specific module for breast cancer and the Adherence to treatment domains, there were negative correlations, with statistical significance between Sexual Desire and Sexual Satisfaction with the Support/Perceived severity domain; and between Breast Symptoms and the Intentions domain (Table 3).

Table 2 – Correlation between the domains of health-related quality of life and the domains of adherence to treatment in patients with breast and prostate cancer. João Pessoa, Brazil, 2019. (n=305).

	Quality of Life	Interpersonal aspects of care		Perceived susceptibility		Subjective norms		Intentions		Support/ Perceived severity		Total	
		r	p*	r	p*	r	p*	r	p*	r	p*	r	p*
Prostate	**Global Health Scale**	0.017	0.869	-0.036	0.720	-0.035	0.730	0.263	0.208	0.169	0.092	0.069	0.490
	Functional Scale	-0.109	0.276	-0.064	0.522	0.039	0.695	**0.205**	**0.040**	0.009	0.930	-0.028	0.784
	Physical Function	-0.016	0.873	0.146	0.146	0.015	0.884	0.142	0.158	0.018	0.856	0.146	0.144
	Role Performance	0.002	0.981	0.088	0.381	-0.129	0.197	-0.006	0.949	0.020	0.842	0.052	0.603
	Emotional Function	-0.002	0.988	-0.171	0.088	0.160	0.111	**0.220**	**0.027**	0.010	0.919	-0.065	0.516
	Cognitive Function	-0.033	0.719	-0.076	0.447	0.053	0.600	0.081	0.418	0.021	0.836	-0.050	0.621
	Social Function	-0.031	0.757	-0.179	0.073	-0.074	0.706	0.123	0.221	-0.049	0.626	-0.096	0.450
	Scale of Symptoms	0.112	0.267	-0.015	0.883	0.114	0.258	-0.102	0.393	-0.020	0.845	0.004	0.967
	Fatigue	0.157	0.118	-0.038	0.703	-0.017	0.865	-0.039	0.702	0.090	0.371	0.019	0.852
	Nausea and vomiting	-0.012	0.903	-0.057	0.572	0.056	0.610	-0.162	0.105	-0.010	0.904	-0.058	0.562
	Pain	0.125	0.212	-0.060	0.552	-0.041	0.684	-0.080	0.426	-0.039	0.516	-0.094	0.350
	Dyspnea	0.142	0.157	-0.018	0.859	0.049	0.628	-0.051	0.610	-0.105	0.297	0.019	0.848
	Insomnia	**-0.097**	0.336	0.075	0.459	0.055	**0.031**	-0.083	0.409	-0.002	0.985	0.050	0.622
	Loss of appetite	0.034	0.737	-0.167	0.096	-0.029	0.772	-0.165	0.099	-0.048	0.636	-0.178	0.075
	Constipation	0.076	0.450	0.045	0.653	-.0122	0.223	-0.122	0.224	0.115	0.254	0.039	0.699
	Diarrhea	0.004	0.968	-0.097	0.333	-0.044	0.665	-0.030	0.768	0.031	0.757	-0.076	0.451
	Financial difficulty	-0.016	0.874	-0.038	0.703	**0.200**	**0.045**	-0.039	0.687	-0.141	0.159	-0.039	0.696
Breast	**Global Health Scale**	-0.092	0.189	-0.027	0.696	0.088	0.208	-0.001	0.986	0.043	0.542	0.005	0.940
	Functional Scale	-0.043	0.539	-0.005	0.939	0.079	0.263	0.117	0.096	0.024	0.733	0.040	0.574
	Physical Function	-0.025	0.721	-0.064	0.363	-0.041	0.559	-0.013	0.855	-0.105	0.135	-0.111	0.114
	Role Performance	-0.020	0.777	-0.080	0.258	**0.141**	**0.044**	0.082	0.244	0.097	0.170	0.042	0.550
	Emotional Function	-0.005	0.939	0.091	0.194	0.057	0.421	0.117	0.095	0.085	0.225	0.130	0.065
	Cognitive Function	-0.031	0.657	-0.101	0.149	0.113	0.106	0.190	0.097	0.018	0.798	0.020	0.772
	Social Function	-0.032	0.652	0.014	0.846	0.061	0.390	-0.141	0.095	0.032	0.652	-0.024	0.731

Table 2 – Cont.

	Quality of Life	Interpersonal aspects of care		Perceived susceptibility		Subjective norms		Intentions		Support/ Perceived severity		Total	
		r	p*	r	p*	r	p*	r	p*	r	p*	r	p*
Breast	**Scale of Symptoms**	-0.041	0.564	-0.009	0.898	-0.071	0.314	-0.092	0.191	-0.123	0.078	-0.112	0.112
	Fatigue	0.040	0.567	0.041	0.561	-0.080	0.258	**-0.150**	**0.032**	-0.078	0.511	-0.102	0.146
	Nausea and vomiting	-0.115	0.102	0.014	0.844	0.021	0.765	0.055	0.431	0.012	0.868	-0.012	0.867
	Pain	-0.072	0.309	-0.025	0.727	-0.059	0.400	0.012	0.860	-0.016	0.822	-0.031	0.656
	Dyspnea	0.011	0.881	0.048	0.493	-0.001	0.991	0.097	0.165	-0.109	0.122	0.000	0.999
	Insomnia	0.049	0.483	-0.023	0.743	-0.116	0.097	-0.076	0.282	-0.111	0.113	-0.109	0.120
	Loss of appetite	-0.084	0.235	-0.003	0.961	0.039	0.579	-0.050	0.474	-0.117	0.097	-0.081	0.252
	Constipation	-0.031	0.661	0.054	0.439	-0.084	0.234	-0.061	0.621	0.032	0.647	-0.033	0.642
	Diarrhea	-0.031	0.662	-0.033	0.642	0.045	0.639	0.029	0.683	-0.135	0.055	-0.059	0.406
	Financial difficulty	-0.064	0.440	-0.129	0.066	-0.039	0.583	-0.042	0.551	-0.060	0.394	**-0.164**	**0.019**

*_Pearson_'s Correlation Test.

Table 3 – Correlation between the domains of the health-related quality of life specific module for breast cancer and the domains of adherence to treatment. João Pessoa, Brazil, 2019. (n=204).

Quality of Life	Interpersonal aspects of care		Perceived susceptibility		Subjective norms		Intentions		Support/ Perceived severity		Total	
	r	p*	r	p*	r	p*	r	p*	r	p*	r	p*
Functional Scale	-0.013	0.852	-0.011	0.875	0.014	0.839	-0.088	0.213	0.056	0.526	0.068	0.334
Body image	-0.074	0.291	-0.124	0.077	0.040	0.0567	-0.071	0.312	0.077	0.277	-0.043	0.539
Sexual desire	-0.030	0.665	-0.053	0.729	0.031	0.659	0.025	0.723	**-0.199**	**0.004**	-0.011	0.702
Sexual satisfaction	-0.026	0.716	-0.058	0.824	0.040	0.572	-0.019	0.792	**-0.199**	**0.004**	-0.009	0.803
Future perspective	0.020	0.776	0.056	0.425	0.064	0.362	-0.069	0.324	0.090	0.203	0.071	0.314
Scale of Symptoms	-0.090	0.199	0.000	0.995	-0.002	0.981	0.065	0.353	-0.096	0.174	-0.050	0.479
Side effects	0.032	0.652	-0.076	0.280	0.034	0.634	0.069	0.326	0.076	0.280	0.046	0.515
Arm symptoms	0.086	0.708	0.107	0.128	-0.059	0.398	-0.102	0.145	0.110	0.118	0.107	0.127
Breast symptoms	0.097	0.169	0.044	0.529	-0.035	0.616	**-0.199**	**0.004**	0.053	0.452	0.005	0.944
Hair loss	-0.017	0.806	-0.073	0.297	-0.034	0.629	0.092	0.190	0.044	0.534	0.009	0.895

*_Pearson's_ Correlation Test

DISCUSSION

The relation between QoL and patients' adherence to treatment is rarely addressed in national and international studies, especially with regard to cancer. Despite this, in research studies devoted to assessing this relation, it is observed that QoL influences therapeutic adherence.[11,19]

In this research, regarding the relation between HRQoL and therapeutic adherence, there was a positive and significant correlation of Global Health Scale and Functional Scale with the Intentions domain in the group of patients with prostate cancer, indicating that the better the perception of HRQoL in the global and functional aspect, the greater the intentions of adhering to the treatment. It is known that cancer and its treatment generate numerous repercussions on the patient's life and routine, changing autonomy and independence in carrying out activities and, consequently, QoL and adherence.[12] It is emphasized that the individual perception about the disease and QoL defines the search for care.[20]

The emotional function of the FS was also shown to be correlated to the Intentions domain. The diagnosis of the disease has an emotional impact for both the person and the family.[11] Men with prostate cancer experience feelings related to fear of death, concern about treatment and dependence on care, discouragement, anger, anguish, anxiety and irritability.[21]

In addition to that, it is evidenced that impaired physical integrity, especially related to sexuality, is sometimes the largest cause of emotional distress in men.[22] In this sense, the Nursing professional can act in a specific manner, providing information about sexual function and counseling to the partners, ensuring trust, privacy and confidentiality, as well as, if relevant, teaching exercises to strengthen the pelvic muscles and bladder control,[23] in the presence of urinary incontinence, a frequent problem in men with prostate cancer.[10]

In this context, the emotional repercussions can cause the patient not to notice the advances in treatment, to emphasize more the limitations or not to feel motivated to invest in therapy, which significantly influences the coping with the disease and adherence.[22,24] Thus, it was noticed that the patients evaluated in this research had a good perception of health and QoL, especially with regard to emotional function and, therefore, demonstrated greater intentions to adhere to therapy.

With regard to the domains of quality of life and adherence to treatment, there was a positive correlation among insomnia, financial difficulty and subjective norms, pointing out that the more complaints of these symptoms, the greater the support coming from friends and family. As their inadequate management can culminate in treatment abandonment and cancer progression.[25] The reduction in symptoms of fatigue and sleep disorders was the most evident indicator in improving therapeutic adherence, according to the findings of another study.[19]

In the meantime, Nursing can intervene in a targeted manner, with a view to minimizing insomnia and fatigue. In the case of insomnia, it is important that it is not considered normal in cancer patients, and it is essential that nurses provide guidance on environmental conditions that are essential for sleep and rest, such as the absence of noise and favorable lighting.[23] In addition to that, it is highlighted that the assessment of sleep quality can contribute to broader management of the disease.[25] In order to prevent and relieve fatigue, regular physical exercise when possible, sleep regulation, as well as the teaching of energy conservation measures are recommended.[26]

The social support network becomes important as it helps in coping with everyday problems and in the search for health care.[20] Faced with financial difficulties, for example, the social support network, especially the family, tends to organize itself in order to be able to provide this support.[24] Thus, social support has a direct effect on adherence and persistence of treatment.

Regarding the general HRQoL and the adherence of patients with breast cancer, a positive correlation was observed between the Role performance and Subjective norms domains. In a study carried out with women undergoing chemotherapy for breast cancer, the presence of elements that caused harms to QoL, satisfaction with treatment and pharmacological adherence was evidenced.[11]

A number of research studies show that the family is the main source of social support for the patient.[12,27] Within the context of cancer, family members locate the main problems, choose priorities and try to rearrange themselves around the needs that arise in the course of the disease and, mainly the treatment, so that the individuals are not left without care. Thus, a kind of family network is formed that serves as an important source of support.[27] In this sense, this network can also participate in offering support in relation to daily activities, which favors better performance of roles by the women.

Negative correlations were observed between fatigue and the Intentions domain and between Financial difficulty and Total adherence, indicating that the greater the fatigue, the lower the intention to adhere, and that the greater the financial difficulty, the lower the total adherence. In a study conducted in Colombia that evaluated the care needs of 173 cancer patients, it was found that, of the physical needs, fatigue/loss of energy was the most frequent, followed by discomfort and inability to perform daily activities.[28]

Losses in the physical condition make it difficult to perform household chores,[28] compromising the routine of women with breast cancer, who are often prevented from exercising the role of taking care of the home and the family, which can consequently cause concern about the maintenance of these activities, since they are the main responsible for domestic care, with the children and the general organization of the home.[6]

The presence of fatigue can motivate women to believe that this is an indication of disease progression and ineffective treatment, concluding the need to interrupt therapy,[26] which can justify the relation between fatigue and the Intentions domain in this study.

Financial difficulty is a reality for most cancer patients[24] and can interfere with adherence, representing a limitation in access to the established treatments[11] and in the search for assistance in the private service, due to the long waiting times in the Unified Health System, in the purchase of necessary medications and in the cost of transportation, among other needs, during the therapeutic itinerary. In some cases, the city hall of the patient's municipality of residence provides transportation to the health service, mitigating economic difficulties and favoring therapy continuation.[9]

With regard to the correlation between EORTC QLQ BR-23 quality of life and adherence to treatment, negative associations were verified between sexual desire, sexual satisfaction and support/perceived severity; as well as between breast symptoms and intentions. Due to the changes in aesthetics and in the physical and hormonal conditions, resulting from the therapeutic modalities, the sexual function and pleasure of women with breast cancer are often affected, causing harms to their intimate and social life.[29]

When seeking to intervene in this issue, in addition to providing guidelines on sexual issues, nurses can implement actions aimed at aesthetics, as an aid in planning hair loss, suggesting the use of wigs, turbans and scarves, explaining that the hair will return after therapy.[23]

In this sense, women tend to have a worse perception of the severity of the symptoms of the disease and treatment, especially when compared to those who do not present these changes. In this context, in understanding these difficulties, family support is a measure that helps in daily coping with cancer.[29]

The presence of symptoms in the breast can contribute to reduce the intentions to adhere to the treatment, as it negatively interferes with satisfaction. According to Álviz et al.,[11] low level of satisfaction with chemotherapy, due to adverse effects, can contribute to non-adherence to the therapeutic regimen. A survey conducted in São Paulo, Brazil, with 161 women, found that, among the most frequent symptoms in the breast, the presence of pain decreases by 2,199 times the hope of cure than in patients who do not present this complaint.[30] Given this, nurses can adopt non-pharmacological techniques, such as teaching relaxation methods with images, distraction or music therapy, recreation, therapeutic play and application of heat/cold, among others, for pain control before, during or after treatment or, if needed, instruct on the use of medications, as prescribed.[23]

Given the above, it was noticed that HRQoL was related to the several dimensions of therapeutic adherence in patients with breast and prostate cancer. In this context, nurses in the oncology care routine are responsible for identifying and evaluating the factors that interfere in the patients' HRQoL, aiming at designing a comprehensive and specific care plan, according to the needs individually evidenced, which will favor improvements in therapeutic adherence.[12]

It is noteworthy that, in this context, it is essential to establish bonds with the patients and their family, through attentive listening, humanized welcoming and, mainly, the practice of empathy, seeking to understand them, according to the life context.[12] In addition to that, it is necessary to consider the uniqueness that permeates the experience of patients with cancer, contemplating beliefs, cultures and individual care practices.

CONCLUSION

The correlation between health-related quality of life and adherence of patients with prostate cancer showed statistical significance ($p \leq 0.05$) between the Global Health Scale and the Functional Scale, Intentions domain; emotional function and intentions; insomnia and subjective norms; financial difficulty and subjective norms. In women, there was statistical significance ($p \leq 0.05$) between role performance and subjective norms; fatigue and intentions; financial difficulty and total adherence; sexual desire, sexual satisfaction and support/perceived severity; breast symptoms and intentions.

Thus, it can be concluded that breast and prostate cancers and the various therapeutic schemes negatively affect the patients' quality of life, causing physical, psychological and social repercussions, which interfere with adherence to therapy. These findings are relevant, as they provide data on the impact of HRQoL on the determinants of adherence to cancer treatment, which promotes reflection on this issue, contributing at the macro level to the formulation and adequacy of public health policies in oncology.

To the health professionals, especially nurses who provide longitudinal care, the data exposed are useful, as they can serve as a subsidy for planning interventions focused on specific aspects that affect HRQoL, in order to minimize the impact of the disease and treatment on the patients' lives, as well as on adherence, contributing to the effectiveness of therapy and to better living and health conditions.

The limitation of this study refers to its cross-sectional design, as it does not allow a cause and effect relation between the variables. Thus, it is recommended that new research studies are conducted in a longitudinal manner, in order to clarify in greater detail the relation between HRQoL and therapeutic adherence.

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