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Factors associated with health-related quality of life of breast cancer patients in a tertiary hospital in Albania

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Abstract:

BACKGROUND: Breast cancer (BC) is the leading cause of cancer deaths in Albanian women, accounting for about 6.3% of total cancer deaths. The main objective of this study is to highlight the health-related quality of life (QoL) scale scores for Albanian women in stable clinical conditions with BC.

MATERIALS AND METHODS: For this study, the European Organization for Research and Treatment of Cancer Quality of Life (EORTC QLQ – C30) questionnaire was used. Data were analyzed by the Statistical Package for Social Sciences, version 15 for Windows (SPSS Inc., Chicago, Illinois). For the functional scales and global QoL, a higher score corresponds to better functioning and QoL, while for symptom scales, a higher score corresponds to more frequent and/or more intense symptoms.

RESULTS: In total, 51 women participated in the study. The mean age was 57.2 years old (SD = 11.1). Of the QLQ–C30 scales, the patients seemed to perform averagely too well on both the symptom scales and the functional health status scales. Of the functional scales, the mean score for the global QoL scale was 67.2%±20.3, while the range of mean scores for the five scales was from 53.6% to 73.5%, indicating a predominantly average level of general well-being with a good level of functional health status.

CONCLUSION: Despite the progress made, Albania faces challenges in implementing international guidelines on cancer management. Despite institutional support, cancer is associated with significant financial burdens.

Keywords:

Breast cancer, health, life quality, patients, tumors, women

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Introduction

In 2019, the World Health Organization (WHO) estimated that cancer is the first or second most common cause of death before age 70 in 112 out of 183 countries. Additionally, it ranks as the third or fourth cause of death in 23 other countries.^[1]

According to the Global Cancer Statistics, breast cancer (BC) affected 2.3 million women worldwide in 2020, resulting in 685,000 deaths.^[2] This cancer type is currently the most widespread in the world.^[3] Moreover, a projected number of over 3,059,829 women are to be diagnosed in 2040.

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While the incidence rates of a specific condition are 88% higher in countries that have already transitioned compared to those that are still transitioning (55.9 and 29.7 per 100,000, respectively), it has been observed that women residing in the latter have a mortality rate that is 17% higher than their counterparts in the former.^[4] Albania is a middle-income country of 3.04 million inhabitants in Southeast Europe with an average life expectancy of 78.3 years (61st in the world). Women account for 50.2% of the total population, and BC is the leading cause of cancer deaths in Albanian women, accounting for about 6.3% of total cancer deaths.^[5] According to the latest

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WHO data published in 2020, BC Deaths in Albania reached 0.80% of total deaths, ranking Albania #154 globally.^[6] One of the major reasons for the rise in BC cases in Albania, besides modifiable risk factors, are demographic transition after 90's which was accompanied by an epidemiological transition as well.^[7]

In recent years, randomized controlled trials all over the world have been collecting patient-reported outcome measures, mainly health-related quality of life (HRQoL) tools. This information guides patient-centered care, clinical decision-making, and healthcare policy or reimbursement decisions.^[8] The World Health Organization has defined HRQoL as an encompassing measure that includes physical health, psychological well-being, level of independence, social connections, personal beliefs, and surroundings.^[9] During different types of treatment, patients face treatment-associated side effects, including pain, nausea, and fatigue, which harm their QoL.^[10] HRQoL also includes subjective satisfaction related to one's economic and cultural background, as well as values orientation. Deterioration of patients' HRQoL is more pronounced in developing countries since BC is diagnosed at advanced stages.^[10] In modern oncology, QoL scales have demonstrated their complementary role to standard clinical assessment becoming a crucial determinant of treatment success.^[11]

One of the most popular cancer-specific HRQoL instruments is the European Organization for Research and Treatment (EORTC) Quality of Life Questionnaire-C30 (QLQ-C30).^[12]

The main objective of this study is to highlight the HRQoL scale scores for Albanian women in stable clinical conditions with BC compared with the international data.

Evidence-based, effective, and adaptable interventions for BC patients in Albania care are scarce. Structuring effective interventions addressing the BC patient's needs requires an in-depth understanding of the characteristics and contextual factors that influence their QoL. This is the first study of its kind conducted in Albania. No previous studies have evaluated the social, emotional, and psychological well-being of BC patients in Albania

The results of this study will help the government and policymakers to design tailored strategies to improve cancer survival rates in Albania and undertake immediate actions to reach the targets stabilized in the World Cancer Declaration.

Materials and Methods

Study design and setting

The subject of this study is Albanian women affected by BC who attend the clinic of medical oncology hospital at the Hospital Centre "Mother Teresa" in Tirana, Albania from March to July 2023. The Oncology Hospital in this center is the national reference center for the diagnosis and treatment of BC in Albania.

Study participants and sampling

The study was carried out in compliance with the Helsinki Declaration. Patients and their family caregivers were informed about the aims and goals of the study and confidentiality and anonymity of the data were guaranteed to the patients. An informed consent to participate in the study was signed by the patients.

Inclusion criteria: Albanian women affected by BC, in stable clinical condition (i.e., were not in acute pain, could move about unassisted), had clear consciousness, could easily follow the interview process, and could independently give consent to participate.

Exclusion criteria: Patients with psychiatric problems or cognitive impairment were excluded from the study. Patients affected by other types of cancers or other severe diseases were not subject to this study. Patients aged less than 18 years old were not considered.

A framework for this study is presented in Figure 1.

Data collection tools and technique

For this study, the European Organization for Research and Treatment of Cancer QoL (EORTC QLQ-C30) questionnaire was used.^[12] The EORTC QLQ - C30 is a 30-item generic HRQOL instrument designed to assess cancer patients' physical, psychological, and social functioning. It has been translated into over 100 languages and validated for use in more than 3,000 studies worldwide. There are 30 questions composed of three domains: global health status/QoL, functioning (physical, role, emotional, cognitive, and social functioning) symptoms (fatigue, nausea and vomiting, pain, dyspnea, insomnia, appetite loss, constipation, diarrhea) and a final item evaluates the perceived financial impact of the disease.

The first 28 items of the questionnaire are rated on a four-level Likert scale from "not at all" (1), to "very much" (4) and the time frame is the present. For items 29 (on overall general health) and 30 (on overall QoL), the response options range from "very poor" (1) to "excellent" (7), and the time frame is "during the past week." After requesting the English version of the EORTC QLQ questionnaire and the scoring manual, the

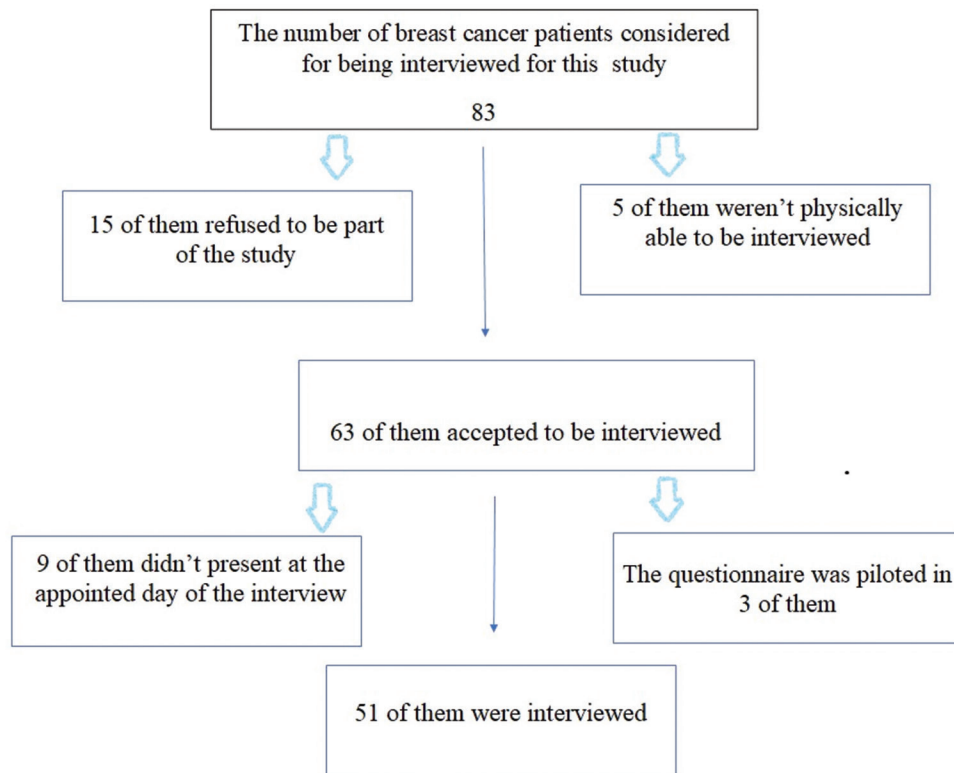


Figure 1: The framework of patient selection for participating in the study

questionnaire was translated into Albanian language and piloted to a few patients to evaluate the clarity and time needed for completion. The internal consistency of the questionnaires was assessed by estimating the Cronbach's alpha value of the multi-item scales, which resulted to be 0.87 (reference is > 0.70).

Data analysis

The collected data were inserted in an Excel datasheet and the database is published in the Zenodo repository at the following link: QoL of BC Patients in Albania (zenodo.org) with the following DOI number: 10.5281/zenodo.12179804.

Data were analyzed by the Statistical Package for Social Sciences, version 15 for Windows (SPSS Inc., Chicago, Illinois). The scoring algorithm recommended by the EORTC scoring manual,^[13] was used to transform the raw scores into values on a scale of 0%–100%. For the functional scales and global quality of life (GQoL), a higher score corresponds to better functioning and QoL, while for symptom scales, a higher score corresponds to more frequent and/or more intense symptoms. A problematic group is defined as one with a GQoL or functional scale score of 33 or less, and a symptom scale score of 66 or more on the QLQ-C30.^[12]

Considering the $\leq 33\%$ cut-off scale score suggested by an empirical general population study,^[13] we categorized the patients as follows:

- For the functional scales and the GQoL, we defined subjects with problematic functioning as those who scored $\leq 33\%$, while subjects in good condition scored $> 66\%$.
- For symptom scales, subjects scoring $\leq 33\%$ were judged as having less severe symptoms, while those scoring $> 66\%$ had more intense symptoms

QoL scores were described as mean and standard deviation. Pearson correlation was performed to measure the strength of a linear relationship between functioning and symptoms. Statistical significance was set at $P < 0.05$. Scale scores were adjusted for age. Multiple (stepwise) regression analyses were developed to assess the predictors of the functional scales and GQoL scale of the QLQ-C30. With each of the functional scales as the dependent variable, the independent (predictor) variables were entered in blocks, starting from other functional scales, then the symptom scales, and the single item scales of the QLQ-C30.

Ethical statement

Ethical approval was received for this study from the Ethics Committee of the University of Medicine, Tirana, Albania, No. 3285/1.

The STROBE guidelines for observational studies in epidemiology were followed for writing this article (<http://www.strobe-statement.org>).

Results

In total, 51 women participated in the study. The mean age was 57.2 years old (SD = 11.1). Of the QLQ – C30 scales, the patients seemed to perform on average too well on both the symptom scales and the functional health status scales. Of the functional scales, the mean score for the global QoL scale (GQoL) was 67.2%±20.3, while the range of mean scores for the five scales was 53.6% to 73.5%, indicating a predominantly average level of general well-being with a good level of functional health status. Judging by the cut-off score of 66%, the best domains of functioning were “cognitive” and “physical”, where just over one-half of the participants had good levels of functioning. The domains with the poorest functioning were general emotional and social functioning, where only 33.3%–37.3% had a good level of functioning. While 25.5% of the subjects met the operational criterion for problematic functioning in the emotional domains. While the situation is good in the functioning domains, it changes in the symptoms. The commonest problem areas (i.e. over one-quarter had “problematic” scores) were pain, fatigue, sleep disturbance, and financial problems. Especially in the financial problem domain, 76.5% of the subjects met the criteria of problematic. Thus, having financial difficulties. 60.8% of the patients also met the criteria of problematic in the insomnia domain.

However, 18.3% to 54.8% met the operational criterion for “good” functioning for the symptom scales. The domains where the patients performed better were diarrhea and appetite loss.

Table 1: QLQ – C30 unadjusted scale scores, percentage of subjects with problems and in good condition ^a

Using Pearson’s correlation analysis, the correlation of age with scale scores correlations was significant and positive for the following functional scales: general well-being, cognitive functioning, social functioning, physical and role functioning (r ranged from 0.10 to 0.12, *P* 0.0034). [Table 2]

The correlations were significant and negative for the following symptom scales: dyspnea, diarrhea, appetite loss, and nausea and vomiting (r ranged from -0.12 to -0.16, *P* 0.002). Thus, older patients tended to have better functioning and less intense symptoms for the functional and symptom scales than younger patients.

Table 2. Age-adjusted scale scores

For functional scales, higher scores indicate better functioning.

For symptom scales, higher scores indicate worse functioning.

In stepwise regression analyses [Table 3], with the GQoL and functional scales, each, as dependent variables, the variables that that accounted for the highest proportion of variance for each scale were:

- For GQoL, role functioning resulted in a predictable variable (Variance 33.2%, *P* 0.034)
- For physical functioning, role functioning (Variance 50.1%, *P* 0.045)
- For role functioning, physical functioning (Variance 50.1%, *P* 0.023)

Table 1: QLQ – C30 unadjusted scale scores, percentage of subjects with problems & in good condition

Variables	<i>n</i>	No. of items	Mean (SD)	95% C.I.	% scoring <33.3%	% scoring ≥66.7%
C-30 Functional scales						
GLOBAL QOL/General Health	51	2	67.2 (20.3)	61.4-72.9	2	45.1
Physical functioning	51	5	68.6 (21.9)	62.5-74.8	5.9	51
Role functioning	51	2	67.3 (25.2)	60.2-74.4	5.9	43.1
Emotional functioning	51	4	53.6 (29.3)	45.4-61.8	25.5	33.3
Cognitive functioning	51	2	73.5 (26.1)	66.2-80.9	2	54.9
Social functioning	51	2	62.1 (30.7)	53.4-70.7	15.7	37.3
C-30 Symptoms scales ^c						
Fatigue	51	3	52.5 (27.9)	44.7-60.3	19.6	41.2
Nausea and vomiting	51	2	11.1 (24.4)	4.2-18.0	86.3	5.9
Pain	51	2	41.5 (27.8)	33.7-49.3	27.5	25.5
Dyspnea	51	1	23.5 (30.8)	14.9-32.2	56.9	23.5
Insomnia	51	1	54.9 (35.2)	45.0-64.8	19.6	60.8
Appetite loss	51	1	20.9 (36.5)	10.7-31.2	70.6	19.6
Constipation	51	1	22.9 (35.0)	13.0-32.7	64.7	23.5
Diarrhea	51	1	5.2 (20.4)	-11.5	92.2	3.9
Financial difficulties	51	1	66 (33.7)	56.5-75.5	13.7	76.5

^aFor functional scales, subjects scoring <33.3% have problems; those scoring ≥66.7% have good functioning. For symptom scales/symptoms, subjects scoring <33.3% have good functioning; those scoring=66.7% have problems ^bFor functional scales, higher scores indicate better functioning. ^cFor symptom scales, higher scores indicate worse functioning

- For emotional functioning, fatigue (Variance 44.5%, P 0.035)
- For cognitive functioning, emotional functioning (Variance 30.9%, P 0.02)
- For social functioning, fatigue (Variance 22.2%, P 0.031)

As it is seen, the functional scales were more important (i.e., accounted for the highest proportion of variance) than the symptom scales.

Table 3 Predictors of functional health status and global QoL.

Discussion

The risk of dying from cancer before age 75 in Albania is currently 18.4%.^[14] The GQoL among Albanian BC

Table 2: Age-adjusted scale scores. For functional scales, higher scores indicate better functioning. For symptom scales, higher scores indicate worse functioning

Variables	<i>n</i>	No. of items	Mean (SD)*	95% C.I.
Function scales				
General Health/Global QOL	51	2	66.8 (19.5)	66.1-67.5
Physical functioning	51	5	69.1 (21.6)	68.3-69.8
Role functioning	51	2	67.1 (24.7)	66.2-68.0
Emotional functioning	51	4	53.7 (28.5)	52.7-54.8
Cognitive functioning	51	2	74.2 (25.3)	73.2-75.1
Social functioning	51	2	62.3 (30.5)	61.2-63.4
Symptoms scales				
Fatigue	51	3	51.8 (28.1)	50.7-52.8
Nausea and vomiting	51	2	10.5 (23.6)	9.6-11.3
Pain	51	2	41.3 (27.8)	40.3-42.3
Dyspnea	51	1	22.5 (30.3)	21.4-23.6
Insomnia	51	1	54.5 (34.0)	54.3-55.8
Appetite loss	51	1	19.9 (36.0)	19.9-36.0
Constipation	51	1	23.1 (34.6)	21.9-24.4
Diarrhea	51	1	5.2 (20.4)	4.4-5.9
Financial difficulties	51	1	65.7 (34.1)	64.4-66.9

*Scores adjusted for age

women resulted to be 67.2 (SD = 20.3) which is higher than the EORTC QLQ-30 reference values (Mean = 61.8, SD = 20.3).^[12] Although the mean scores for QLQ – C30 indicated that the patients had average scale scores, 2% to 25.5% of them had scores that met the $\leq 33\%$ criterion for problematic functioning, while 3.9% to 76.5% met the $>66\%$ criterion for more severe symptoms. The lowest scores were noted for emotional and social functioning, while the highest scores were for physical and cognitive functioning. 20% of the patients declared to be in the hospital that day for chemotherapy treatment. As these patients are more likely to be diagnosed with advanced-stage cancer, chemotherapy is significantly associated with poorer QoL in women with BC. Patients with chemotherapy experience higher levels of exhaustion, pain, and stress which might decrease their QoL.^[15]

Emotional support of the families is a major factor influencing the QoL of BC patients. Cultural values and traditional beliefs are another element that influences the QoL of patients. In Albania, the figure of the women is in the center of the family. Women are a lot more engaged than men in family issues, housework, cooking, taking children to school, and taking care of children and other family members. Thus, when a woman is sick the family goes into chaos and collapses. The whole family is influenced.

The high scores received in physical and cognitive functioning might be attributed to the young age of the women participating in the study (mean 57.2 years). At this age, the cognitive function remains good, and physical function too. The low scores in emotional and social functioning might also be attributed to the young age at which they know that they have cancer. The greater the age of patients, the better their emotional and social functioning as somehow, they expect the diagnosis and the illness do not influence their daily activities. A systematic review considering 27 studies

Table 3: Predictors of functional health status and global quality of life

Dependent variable	Predictors/Independent variables	%Variance	Total Variance	Standardized Beta	<i>t</i>	<i>P</i> level
QOL/General Health	Role functioning	33.2	42.1	0.4	3.08	0.03
	Pain	9		-0.35	-2.73	0.09
Physical functioning	Role functioning	50.1	60.2	0.54	5.21	0.003
	Insomnia	5.5		-0.24	-2.44	0.019
	Financial difficulties	4.5		-0.21	-2.32	0.025
Role functioning	Physical functioning	50.1	59.2	0.49	4.29	0.008
	Emotional functioning	9		0.37	3.26	0.02
Emotional functioning	Fatigue	44.5	60.5	-0.39	-3.4	0.01
	Role functioning	11.1		0.31	2.56	0.01
	Cognitive functioning	5		0.26	2.44	0.02
Cognitive functioning	Emotional functioning	30.9	38.7	0.37	2.77	0.01
	Dyspnea	7.8		-0.34	-2.47	0.02
Social functioning	Fatigue	22.2	22.2	-0.47	-3.74	0.0003

concluded that all participants in these studies described the combined shock of being young and diagnosed with metastatic BC.^[16] A similar study observed that patients reported cognitive problems with memory and concentration but none felt this significantly reduced their QoL.^[17] Most of the patients were present at the hospital either to undergo radiotherapy or chemotherapy. About 68% of the interviewed patients declared that medical treatment and illness itself have impacted their daily activities. Another factor that might influence their daily activities is the last surgical intervention. About 43% of the patients had the last surgical intervention more than one year before the date of the interview, while 22% of them underwent the surgical procedure less than one year ago. The near date of surgical intervention demonstrates that they are still in the primary recovery phases. This is also explained by the high percentage of patients (72%) who declared that pain has somehow influenced their daily activities. 33% of them declared that were limited from pursuing their hobbies and leisure activities, which might have further worsened their emotional function. However, 90% of them declared to be able to take care autonomously of themselves and do activities such as eating, washing, and dressing.

About 57% of the patients declared to have a lot of difficulty when doing heavy activities such as carrying a heavy bag or suitcase. Other similar international studies using the same questionnaire report different results: a study in China considering 621 female patients reported a GQOL score of 53.8 (SD = 24.6).^[18] Another study in Iran among 166 female BC patients reported a GQOL score of 59.1 (SD = 17.4).^[19] While a study in Thailand reported a GQOL score of 61.8 ((SD = 20.1).^[20] A systematic review of patients from the Eastern Mediterranean region reported a GQOL score ranging between 31.1 and 75. 6.^[21] A study collecting general population data for QoL among people in 13 European Countries, Canada, and the USA reported a median GQOL score of 64.3 ((SD = 21.8).^[22] A meta-analysis of 60 studies considering 9012 patients reported a GQOL score of 64.72, with the lowest scores belonging to South America (52.04) and Africa (58.69).^[23] The differences between different countries might be explained by the different protocols used for the study and, the diverse study population considered in terms of age groups and sociodemographic characteristics.

The Patient Reported Outcomes Following Initial Treatment and Long-term Evaluation of Survivorship (PROFILES) study which has collected patient-related outcomes data from both short- and long-term survivors of cancer in The Netherlands concluded that, in a real-world setting, the QLQ-C30 summary score has a strong prognostic value for overall survival

for several cancer patients, which exceeds that provided by clinical and sociodemographic variables.^[24]

In this study, financial difficulties contributed the most to the symptomatic scores (median = 66, SD = 33/7) followed by pain (41.5) and fatigue (52.5). 76.5% of the patients had financial problems which contributed to poorer symptoms and functions. Especially insomnia is a major symptom that is manifested in about 61% of the patients.

This shows that, despite institutional support, cancer is associated with significant family financial burdens. Studies have demonstrated that financial toxicity deriving from medical expenditures exceeding family incomes results in poor health-related QoL.^[25] A study developed in Albania, among 12,554 individuals aged >35 years found that the rate of poor self-perceived health in cancer survivors was higher compared with the overall population study; 67.3% versus 5.4% respectively.^[26] The schemes of treatment reimbursement and cost coverage for different medical expenditures from the government have changed throughout the years in Albania. Albania spends 5.9% of its gross domestic product on health, which is lower than the United States and other European countries.^[7]

About 65% of BC patients presented at the National Oncology Hospital are diagnosed with stage T2.^[27] Despite the availability of screening programs, many Albanian women still face significant barriers to accessing screening and diagnostic services.^[28] Moreover, radiotherapy units (RT) in Albania are not sufficient to cover all the medical necessities. Medical diagnostic imaging plays a crucial role throughout the cancer itinerary pathway from detection, diagnosis, treatment planning, and in long-term follow-up. Applying certain methodologies is estimated that there is a shortfall of about 30 RT machines in Albania.^[29]

The regression analysis shows that the most important predictor of GQOL in this study is role functioning, accounting for the highest variance. Role functioning also influences physical functioning and emotional functioning. Fatigue influences social and emotional functioning. Fatigue might also derive from the activities that patients have to do in their daily lives. Considering the relatively young age of participants in the study, they might have a lot of activities for which are responsible and therefore feel tired. In Albania, the women retire at age 65. In this study, 72% of the women were below 65 years old, which means that they are actively working. A Canadian report stated that role functioning was highly correlated with global QOL.^[30] The phenomenon of response shift suggests that a lot of patients gradually adapt to the situation following diagnosis and treatment

by changing their perception of the severity of the illness.^[31]

Moreover, it is demonstrated that older patients tended to have better functioning and less intense symptoms than younger patients. More than half of the patients interviewed (54.9%) scored above the upper threshold level of 66% for cognitive functioning. Patients having good physical function also were about 51%. Besides the relatively young age of patients participating in the study, another factor that influences this is that most of the patients get diagnosed at early stages when physical functions are not yet compromised. This is in line with international data showing that younger women with cancer tend to have poorer functioning and more intense symptoms.^[32] Literature affirms that patients with BC in their 50s and 60s have a higher QoL compared with those in their 30s and 40s.^[15]

A systematic review considering 60 scientific articles with 9012 patients with BC confirmed that younger patients with BC experienced poorer QoL than their older counterparts.^[15] Healthcare providers should provide more support to younger women. Strategic policies and plans from the government should be implemented for the follow-up of these patients along with a well-designed psychological health plan.

Administrative and legislative efforts have been made in the last 20 years to regulate cancer management in Albania. The National Cancer Control Program was developed in 2005 in collaboration with the World Health Organization (WHO).^[5] Later, in 2011 the Ministry of Health in Albania integrated palliative care into the program and signed the implementation of the National Cancer Control Plan.^[33] Of the 12 providers of palliative care in the whole country, the needs for palliative care are covered only one-third.^[34] Of the 33 essential drugs for palliative care recommended by WHO, Albania has only 27 or 75% of which only 17 (48%) are included in the reimbursement drug list.^[34] In recent years, there has been progress and evolution in implementing ultimate breast surgery techniques such as skin-sparing and nipple-sparing mastectomies in Albania. Studies have shown that breast conservation therapy has a better QoL than other surgical methods.^[35]

The perception of body image in patients with BC after chemotherapy or mastectomy is a significant factor that influences their emotional and psychological functioning. The qualification and training of healthcare professionals is another key element that influences the QoL of BC patients. A study aiming to evaluate patient satisfaction with health care quality and services in public hospitals among 800 patients in Albania, reported that only 38%

of the patients interviewed were very satisfied with the quality of service.^[36]

A study aiming to evaluate knowledge, practices, and perceived barriers regarding cancer pain management among nurses in an oncologic hospital in Albania, reported enormous information deficiencies and multiple barriers that nurses face while giving health care to cancer patients.^[37] A significant correlation was found between the level of education that the nurses possess and the healthcare service they provide to cancer patients. Communication between patients and healthcare staff about medications and treatment procedures is crucial to increase patient satisfaction. Knowledge about the disease helps patients to cope better with the disease and change their behavior. Lack of knowledge leads to late disease detection and increases the risk of death.^[38]

A systematic review aiming to systematically review the women's knowledge, attitude, and practice of BC screening methods all over the world, concluded that women did not have proper knowledge about clinical screening methods.^[39]

Hospital management must develop performance indicators suggested by the European Society of Breast Cancer Specialists and continuously use those indicators to improve the quality of health care. Despite the progress made, Albania faces challenges in implementing international guidelines on cancer management due to issues related to limited availability of molecular testing, and inadequate coverage for systemic treatments such as targeted therapy or immunotherapy. Access to high-quality prevention and early detection for all women can significantly reduce cancer mortality rates.^[3]

Early diagnosis and medical interventions to improve patients' physical and psychological well-being with BC are useful strategies to improve patients' QoL. Training of BC patients is an effective intervention to enhance early detection and reduce mortality. A study among 320 women in India reported that 73% of the participants practiced breast self-examination (BSE) methods.^[40] Another study concluded that health promotion training for BC patients was effective in increasing physical activity, healthy nutrition, and developing positive interpersonal relationships.^[41]

Symptom management interventions are crucial to adjusting BC patients to their normal lifestyle. Other interventions should include stress management programs which are shown to be an effective strategy to help women exposed to stress.^[42] Physical activity is another modifiable lifestyle behavior that influences the QoL of BC survivors and should be addressed

through health promotion training programs. Moreover, considering the relatively young age at which patients get diagnosed with BC, physical problems might interfere with the patient's normal life and work. Therefore, a physical support plan should be considered

Conclusion

The government and health policymakers should act to reach the targets established in the World Cancer Declaration.^[42] Cancer care is a continuum and requires multidisciplinary investments in diagnostic imaging, treatment capacity, and qualification of healthcare personnel to respond to the increasing cancer burden. Policymakers should design targeted educational and cultural plans for BC patients. Future perspectives should consider implementing tools to enable patients to report their perceptions and outcomes. Such tools will help to reach the goal of shared decision-making.

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Ethical approval

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Conflicts of interest

There are no conflicts of interest.

References

1. The Global Health Observatory. Global health estimates: Leading causes of death. World Health Organization. Available from: <https://www.who.int/data/gho/data/themes/mortality-and-global-health-estimates/ghe-leading-causes-of-death>. [Last accessed on 2023 Mar 23].
2. World Health Organization. Breast cancer. Available from: <https://www.who.int/news-room/fact-sheets/detail/breast-cancer>. [Last accessed on 2023 Mar 23].
3. DeSantis CE, Ma J, Gaudet MM, Newman LA, Miller KD, Goding Sauer A, et al. Breast cancer statistics, 2019. *CA Cancer J Clin* 2019;69:438-51.
4. Sung H, Ferlay J, Siegel RL, Laversanne M, Soerjomataram I, Jemal A, et al. Global cancer statistics 2020: GLOBOCAN estimates of incidence and mortality worldwide for 36 cancers in 185 countries. *CA Cancer J Clin* 2021;71:209-49.
5. McIntyre A, Are C. Cancer on the global stage: Incidence and cancer-related mortality in Albania. *The ASCO Post*. Available from: <https://ascopost.com/issues/november-25-2016/cancer-on-the-global-stage-incidence-and-cancer-related-mortality-in-albania/>. [Last accessed on 2023 Mar 23].
6. World Life Expectancy. Leading Causes of Death Albania. Available from: [Life Expectancy in Albania \(worldlifeexpectancy.com\)](http://lifeexpectancy.com). [Last accessed on 2023 Mar 23].
7. Nina H. Situation of breast cancer in Albania. *J MAR Oncol Hematol* 2022;1:8.
8. Li Q, Guo Y, Xue J, Ge X, Lin F, Xue L, et al. Safety and tolerability of HLX07 combined with chemotherapy in patients with advanced solid tumors. *J Clin Oncol* 2023;41(16_suppl):e15001.
9. Harrington S, Gilchrist L, Sander A. Breast Cancer EDGE task force outcomes: Clinical measures of pain. *Rehabil Oncol* 2014;32:13-21.
10. da Costa Vieira RA, Biller G, Uemura G, Ruiz CA, Curado MP. Breast cancer screening in developing countries. *Clinics (Sao Paulo)* 2017;72:244-53.
11. Dehghan M, Hoseini FS, Mohammadi Akbarabadi F, Fooladi Z, Zakeri MA. QoF in terminally ill cancer patients: What is the role of using complementary and alternative medicines? *Support Care Cancer* 2022;30:9421-32.
12. Aaronson NK, Ahmedzai S, Bergman B, Bullinger M, Cull A, Duez NJ, et al. The European organization for research and treatment of cancer QLQ-C30: A quality-of-life instrument for use in international clinical trials in oncology. *J Natl Cancer Inst* 1993;85:365-76.
13. Fayers PM. Interpreting quality of life data: Population-based reference data for the EORTC QLQ-C30. *Eur J Cancer* 2001;37:1331-4.
14. Nina H, Xhepa G, Petrella G, Agnantis N, Hasa R, Mergo K, et al. New frontiers for breast cancer surgery in Albania. *Arch Balkan Med Union* 2023;58:178-86.
15. Javan Biparva A, Raoofi S, Rafiei S, Pashazadeh Kan F, Kazerooni M, Bagheribayati F, et al. Global quality of life in breast cancer: Systematic review and meta-analysis. *BMJ Support Palliat Care* 2023;13:e528-36.
16. Heidary Z, Ghaemi M, Hossein Rashidi B, Kohandel Gargari O, Montazeri A. Quality of life in breast cancer patients: A systematic review of the qualitative studies. *Cancer Control* 2023;30:10732748231168318.
17. Lee Mortensen G, Madsen IB, Krogsgaard R, Ejlersen B. Quality of life and care needs in women with estrogen positive metastatic breast cancer: A qualitative study. *Acta Oncol* 2018;57:146-51.
18. Chen Q, Li S, Wang M, Liu L, Chen G. Health-related quality of life among women breast cancer patients in Eastern China. *Biomed Res Int* 2018;2018:1452635.
19. Mirzaei F, Farshbaf-Khalili A, Nourizadeh R, Zamiri RE. Quality of life and its predictors in Iranian women with breast cancer undergoing chemotherapy and radiotherapy. *Indian J Cancer* 2021;58:76-83.
20. Naung MT, Panza A. Quality of life and relationship between functioning and symptoms of female patients with breast cancer before chemotherapy in a cancer clinic at Yangon, Myanmar. *J Ayub Med Coll Abbottabad* 2020;32:540-5.
21. Gonzalez L, Bardach A, Palacios A, Peckaitis C, Ciapponi A, Pichón-Rivière A, et al. Health-related quality of life in patients with breast cancer in Latin America and the Caribbean: A systematic review and meta-analysis. *Oncologist* 2021;26:e794-806.
22. Nolte S, Liegl G, Petersen MA, Aaronson NK, Costantini A, Fayers PM, et al. General population normative data for the EORTC QLQ-C30 health-related quality of life questionnaire based on 15,386 persons across 13 European countries, Canada and the United States. *Eur J Cancer* 2019;107:153-63.
23. Chen X, Wu C, Bai D, Gao J, Hou C, Chen T, et al. Health-related quality of life in breast cancer patients in Asia: A meta-analysis and systematic review. *Front Oncol* 2022;12:954179.
24. Husson O, de Rooij BH, Kieffer J, Oerlemans S, Mols F, Aaronson NK, et al. The EORTC QLQ-C30 summary score as prognostic factor for survival of patients with cancer in the "Real-World": Results from the population-based PROFILES registry. *Oncologist* 2020;25:e722-32.

25. Yu H, Li H, Zuo T, Cao L, Bi X, Xing H, Cai L, Sun J, Liu Y. Financial toxicity and psychological distress in adults with cancer: A treatment-based analysis. *Asia Pac J Oncol Nurs*. 2022;20;9 (9):100069. doi: 10.1016/j.apjon.2022.04.008.
26. Kraja F, Hoti A, Kreka B, Akshija I, Kraja B. PO-1069 self-perceived health and its determinants in cancer patients: A population-based study in Albania. *Radiother Oncol* 2022;170:S905.
27. INSTAT: Albanian Institute of Statistics. 2020. Available from: albania-in-figures-2020.pdf (instat.gov.al). [Last accessed on 2023 May 02].
28. Ylli A, Filipi K, Shundi L, Fico A, Risto M, Xhani A. New cervical screening program in Albania. Access and barriers in all levels of the health system. *Eur J Public Health* 2020;30(Supplement_5):ckaa166.487.
29. Ige TA, Jenkins A, Burt G, Angal-Kalinin D, McIntosh P, Coleman CN, *et al.* Surveying the challenges to improve linear accelerator-based radiation therapy in Africa: A unique collaborative platform of all 28 African countries offering such treatment. *Clin Oncol* 2021;33:e521-9.
30. Department of Finance Canada. Toward a quality-of-life strategy for Canada, 2021. Available from: mwmtqlsc-mqivsqvc-en.pdf.
31. Ilie G, Bradfield J, Moodie L, Lawen T, Ilie A, Lawen Z, *et al.* The role of response-shift in studies assessing quality of life outcomes among cancer patients: A systematic review. *Front Oncol* 2019;9:783.
32. Cai T, Zhou T, Chen J, Huang Q, Yuan C, Wu F. Identification of age differences in cancer-related symptoms in women undergoing chemotherapy for breast cancer in China. *BMC Womens Health* 2023;23:100.
33. Fondacioni Shoqëria e Hapur për Shqipërinë - Soros. Hyn në fuqi ligji për kujdesin paliativ. 2014. Available from: <https://www.osfa.al/njoftime/hyn-ne-fuqi-ligji-per-kujdesin-paliativ>. Albanian.
34. Rama R, Çarçani V, Prifti F, Huta K, Xhixha A, Connor SR. Palliative care—Albania. *J Pain Symptom Manage* 2018;55:S14–8.
35. Li Y, Guo J, Sui Y, Chen B, Li D, Jiang J. Quality of life in patients with breast cancer following breast conservation surgery: A systematic review and meta-analysis. *J Healthc Eng* 2022;2022:3877984.
36. Kalaja R, Krasniqi M. Patient satisfaction with the quality of care in public hospitals in Albania. *Front Public Health* 2022;10:925681.
37. Enkelejda S, Diamant S, Maksim B, Edmond P. Pain management nursing in oncologic hospital in Albania. *Ann Oncol* 2016;27:vi480.
38. Ramathuba DU, Ratshirumbi CT, Mashamba TM. Knowledge, attitudes and practices toward breast cancer screening in a rural South African community. *Curationis* 2015;38:1–8.
39. Meshkani Z, Moradi N, Aboutorabi A, Noman S, Motlagh AG, Langarizadeh M. Systematic review of women's knowledge, attitude, and practice towards breast cancer. *J Educ Health Promot* 2022;11:171.
40. Mohan R, Thulaseedharan JV. Breast screening practices of 35-65 years old women-A cross-sectional survey in Alappuzha, Kerala, India. *J Educ Health Promot* 2023;12:402.
41. Çol BK, Tufan G, Kiliç D. The evaluation of the effectiveness of a health promotion training on breast cancer survivors. *J Educ Health Promot* 2024;13:31.
42. World Cancer Declaration. Available from: <https://www.uicc.org/what-we-do/driving-global-impact/targeted-commitments/world-cancer-declaration>. [Last accessed on 2023 Mar 23].