Anxiety and Depression in Patients with Breast Cancer: A Cross-sectional Study

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ABSTRACT

BACKGROUND: The early management for distress, depression, and anxiety in breast cancer patients can help improves quality of life that adherence patients to cancer treatment.

AIM: This study aimed to describe the prevalence and risk factors of anxiety and depression symptomatology of breast cancer patients in the inpatients and outpatient settings.

METHODS: This study used a research and development study design. The study was conducted in at the University Clinical Center of Kosovo the Medical Oncology Clinic in Pristina from August to October 2021. The total sample in this study consisted of 50 female breast cancer patients diagnosed at least 6 months before the date of assessment, aged 18 and above, able to communicate in Albanian, signed an informed consent form, negative history of other malignancies, and absence of any temporary acute illness affecting psychological well-being while filling the questionnaire. Questionnaire used in our study is Hospital Anxiety and Depression Scale for assessing anxiety and depression in breast cancer patients.

RESULTS: For anxiety score, some of them were caseness level with 82%, while 26% of study participants were in borderline, 6% in caseness, and some of them were in normal level from 68% on the depression score. The patients feel tense or wound up with 44% Mean/SD (14.67 ± 6.02), about feeling afraid that something terrible will happen and patients may have this feel Mean/SD (13 ± 1.66). Over half of them had the feeling of fear as if something awful is about to happen Mean/SD (11.33 ± 4.03) and that the feeling of fear as if they had “butterflies” in the stomach of 62% had the feeling sometimes, beautiful often, and very often Mean/SD (10.33 ± 4.92).

CONCLUSION: The results indicate that it is very important to measure the level of anxiety and depression in women with breast cancer, which are two common mental disorders in breast cancer.

Introduction

Breast cancer is the most commonly diagnosed cancer globally and continues to be second only to lung cancer as causes of cancer death [1]. The American Cancer Society estimates that 284,000 Americans will be diagnosed with breast cancer and 44.130 will die of the disease in the United States in 2021 [2].

Breast cancer has exceeded lung cancer as the most commonly diagnosed cancer and the fifth cause of cancer deaths in the world, with an estimated 2.3 million cases and 685,000 deaths in 2020 [1], and the cases are expected to reach 4.4 million in 2070 [3].

Among women, breast cancer accounted for approximately 24.5% of all cancer cases and 15.5% of cancer deaths, ranking first for incidence and mortality in the majority of the world countries in 2020 [1].

Distress is a risk factor for no adherence to cancer treatment [4], [5]. In addition to decreased adherence to treatment, failure to recognize and treat distress may lead to several problems: Patients may have trouble making decisions about treatment and may make extra visits to the physician’s office and emergency room, which takes more time and causes greater stress to the oncology team [6], [7].

An analysis of 1036 patients with advanced cancer showed that distress is associated with longer hospital stays (p = 0.04) [8]. Distress in patients with cancer also leads to poorer quality of life and may even negatively affect survival [9], [10], [11], [12]. Furthermore, survivors with untreated distress have poorer compliance with surveillance screenings and are less likely to exercise and quality smoking [13].

Fortunately, factors such as early diagnosis, successful treatment, and correction of risk factors have increased the life expectancy of patients with breast cancer in recent years. On the other hand, the treatment of breast cancer and its side effects after the first treatment may be followed by negative effects on quality of life in these patients [14]. Side effects of the treatment in women under treatment for breast cancer can directly affect the quality life at home and workplace [15].
Patients with breast cancer need complete and comprehensive physical, mental, and social care so that they can enjoy life with proper quality [16].

Breast cancer and its subsequent treatment are a great source of anxiety and depression in patients [17]. One can expect a patient to experience a decline in his/her perceived quality of life during cancer therapy. Surgery, radiation, chemotherapy, and other kinds of interventions carry an array of side effects. Some of these adverse events are well tolerated by patients but many can be debilitating. This makes the goal discussed earlier difficult to maintain during active treatment [18].

Many studies have highlighted the importance of providing early management for depression and anxiety in breast cancer patients. This can help improve rates and quality of life, as well as reduce health-care costs [19], [20], and [21]. The primary aim of this study is to describe the prevalence and risk factors of anxious and depression symptomatology of breast cancer patients in the inpatients and outpatient settings based on the Hospital Anxiety and Depression Scale (HADS) questionnaire. Psychological, emotional, and medical support can be directed to breast cancer patients to control their psychological problems and improve their clinical outcome in living with breast cancer. Early identification is critical in the management of anxious and depressive symptoms and plays an important role in improving their adherence to therapy, chemotherapy, and the overall control of the disease.

Materials and Methods

Study design

This is an across-sectional study conducted among female breast cancer patients treatment between August 2021 and October 2021 at the University Clinical Center of Kosovo (UCCK), a tertiary care academic center in Pristina. Interviews were conducted at the Medical Oncology Clinic of UCCK.

Eligibility criteria

Patients were included in the study if they fulfilled the following inclusion criteria: Female breast cancer patients diagnosed at least 6 months before the date of assessment, aged 18 and above, able to communicate in Albanian or English, signed an informed consent form, negative history of other malignancies, and absence of any temporary acute illness affecting psychological well-being while filling the questionnaire.

Patients were excluded if they were unable to attend or complete the interview due to time constraints, refused to participate in the study or chose later to withdraw from it, and had a history of psychiatric disorder before breast cancer diagnosis.

Sample size

The selection of patients included in the study was randomized by analyzing inclusive and exclusion criteria.

Study instrument

Participants were interviewed that once the aim of the study was explained and written informed consent was obtained.

Questionnaire used in our study: HADS for assessing anxiety and depression in breast cancer patients. This questionnaire translated into Albanian was distributed to patients.

The HADS contains 14 items and consists of two subscales: Anxiety and depression. Each item is rated on a 4-point scale, giving maximum scores of 21 for anxiety and depression. Scores of 11 or more on either subscale are considered to be a significant “case” of psychological morbidity, while scores of 8–10 represent “borderline” and 0–7 “normal” [22].

Statistical analysis

Values are expressed as Mean ± SD for continuous variables and percentage for dichotomous data. Quantitative data were analyzed through the SPSS statistical program.

Results

Out of 76 patients invited to participate, 50 women fulfilled the study inclusion criteria and completed the interview. The mentioned reasons for not participating were time constraints (n = 6), feeling tired (n = 8), or unwillingness to share their experience (n = 12).

Characteristics of the study sample

Table 1 summarizes the sociodemographic and clinical characteristics of our study sample. The most patients at the time of interview were aged 49–49 years old (64%), married (76%), and had completed a secondary or university level of education (80%); 66% of them lived in the city and 58% of them had 1–2 children. Regarding clinical characteristics, the percentage of patients diagnosed with Stage 0–I, II, III, and IV cancer was 18%, 68%, 8%, and 6%, respectively. Furthermore, most patients had onectomy (62%), chemotherapy
before by (52%) Mean/SD (8 ± 9.07), also they laugh and see the funny side of things of (52%) Mean/SD (9 ± 6.42), while when asked if they feel cheerful here, we have a decrease in the feeling of joy of (48%) sometimes stated Mean/SD (7.76 ± 14.33) also of (40%) think that they feel like they have slowed down.

Table 3: Lists the means and standard deviations for each of the HADS – D (Hospital Anxiety and Depression Scale – Depression)

<table>
<thead>
<tr>
<th>HADS-D</th>
<th>n</th>
<th>Mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 1</td>
<td>I enjoy the things I used to enjoy</td>
<td>Definitely as much</td>
</tr>
<tr>
<td>1 1</td>
<td>Not so much</td>
<td>15</td>
</tr>
<tr>
<td>2 1</td>
<td>Only a little</td>
<td>7</td>
</tr>
<tr>
<td>3 1</td>
<td>Not at all</td>
<td>4</td>
</tr>
<tr>
<td>2</td>
<td>Most of the time</td>
<td>12</td>
</tr>
<tr>
<td>1</td>
<td>Sometimes</td>
<td>10</td>
</tr>
<tr>
<td>3</td>
<td>Not at all</td>
<td>8</td>
</tr>
<tr>
<td>2</td>
<td>I feel as if:</td>
<td>12</td>
</tr>
<tr>
<td>1</td>
<td>Very much</td>
<td>12</td>
</tr>
<tr>
<td>3</td>
<td>Not at all</td>
<td>8</td>
</tr>
<tr>
<td>1</td>
<td>I have lost interest in my usual activities</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>I don’t take as much care as I should</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>I may not take quite as much care</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>I take just as much care as ever</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>I look forward to things</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Rather less than I used to</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Definitely less than I used to</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>I can enjoy a good book</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Sometimes</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Not often</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>I can laugh and see the funny side of things</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Not so much now</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>I feel as if:</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Not at all</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Sometimes</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Not at all</td>
<td></td>
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<tr>
<td>1</td>
<td>I feel as if:</td>
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<td>3</td>
<td>I feel as if:</td>
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<td>2</td>
<td>I feel as if:</td>
<td></td>
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<tr>
<td>1</td>
<td>I feel as if:</td>
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</tbody>
</table>

Even after being diagnosed with breast cancer during treatment with chemotherapy and radiotherapy, most patients stated that they still enjoy the things as (76%), and the most of them using Tamoxifen (72%) (Table 2).

Living with breast cancer that from time to time patients feel tense or wound up with 44% Mean/SD (14.67 ± 6.02), while in terms of feeling afraid that something terrible will happen, patients may have this feeling but did not feel very bad (29%) with Mean/SD (13 ± 1.66). Whether they have disturbing thoughts that cross your mind here show that (32%) of them have these thoughts a large part of the time. Living with breast cancer increases the risk of decreased concentration in daily life but this fortunately did not result in our work where (54%) of them stated that they usually feel relaxed Mean/SD (14 ± 8.73), and 40% of them do not feel restless when they are moving Mean/SD (12 ± 5.41), regarding the feeling of panic 32% do not have Mean/SD (14 ± 2.96) (Table 3).
down in their Mean/SD (12.67 ± 4.56), fortunately the interest regarding their appearance has not lost (64%) Mean/SD (16.67 ± 11.41), (38%) of them things expect with the same pleasure as always Mean/SD (10.33 ± 5.02) and when asked if you enjoy reading a book or TV program stated more often, sometimes, not often, and very seldom (36%), (18%), (22%), and (24%) Mean/SD (10.67 ± 3.35).

Discussion

In terms of anxiety and depression are common and significant morbidities in the studied breast cancer population. The total HADS score as well as the percentages of patients suffering from anxiety and depression is comparable to regional and international Figure 1.

![Figure 1: Percentage of participants classified as normal, mild, moderate, and severe according to their (a) anxiety score and (b) depression score](image)

Anxiety and depression coexisting during cancer diagnosis and treatment are a source of major distress in breast cancer patients and have a negative impact on the prognosis, treatment adherence, survival rate, and quality of life [23].

Numerous studies have demonstrated that approximately one-quarter to one-third of breast cancer patients suffer from distress, anxiety, and depression following diagnosis and treatment of breast cancer [24]. A sectional study conducted on female breast cancer patients that undergoing intravenous chemotherapy at the oncology outpatient unit of Hotel-Dieu de France hospital when total of 112 women was included in the study. The prevalence of depression was 43.4% and 56.2% of the patients reported anxiety (based on the HADS classification) [25].

A study conducted on female breast cancer patients in Jordan and noted a mean total HADS score of 18.0 ± 9.0 with 53% of participants scoring abnormal on the anxiety subscale and 45% on the depression scale. Around 14% of patients suffered severe anxiety and 8% had severe depression [26], [27], [28].

A possible explanation for why these figures are higher than those reported in our study is that the majority of patients were second stage of breast cancer (68%) in our study. This is consistent with findings from Burgess et al. (2005) that showed anxiety and depression first stage of breast cancer were more likely to occur early on in the disease course. It is, therefore, expected that levels of anxiety and depression improve with time since diagnosis [18].

The results found in our paper regarding the time period of diagnosis; most of them 82% were diagnosed in the time period of 12–24 months. The findings showed that the emotional functioning domain had the lowest mean score and time of disease diagnosis for the majority of patients that were in the 1st year [29], [30]. The findings of the mentioned study are consistent with the present study. This showed that in both studies not much time had passed the diagnosis of the disease and chemotherapy, surgery, and combinations treatments in these patients and still some patients suffer from destructive mental and emotional effects due to the diagnosis and treatment of their disease.

Quality of life is considered as an effective structure in the lives of patients with breast cancer and early diagnosis of breast cancer has significant positive effects on the quality of life and may increase the survival rate of these patients [27].

The results obtained by Holzner et al. in Australia regarding the relationship between time of disease diagnosis and quality of life showed that the duration of disease decreased the quality of life in patients with cancer [28], which is consistent with our findings because 64% of them were in the Loco-regional stage and 14% in the metastatic. Over half of them had the feeling of fear as if something awful is about to happen Mean/SD (11.33 ± 4.03) and that the feeling of fear as if they had “butterflies” in the stomach of 62% had the feeling sometimes, beautiful often, and very often Mean/SD (10.33 ± 4.92).

This can be due to mental and psychological problems during disease diagnosis period and the shock induced by being informed of the disease [29], [30], [31], [32], [33].

One finding was that there were differences between illiterate and literate people in their responses to the HADS. The percentage of illiterate patients (4%) in this study was not comparable to that reported in other Ethiopian examinations: 43.9% [34], 68.6% [33], 69% [32], and 80% [31], which is not in line with our findings. The literacy rates are increasing and illiteracy do not remains a major problem in psycho-oncological research in Kosovo.

In the discussion of the measurement invariance between Ethiopia and Germany, we mentioned that Item D14 (reading books/watching TV) strongly contributed to the differences [35], [36], [37]. Our results suggested that in Item D14 was found statistical significance Mean/SD (16.67 ± 3.30) that reading books and watching TV are a very important role in overcoming the emotional state after being diagnosed with breast cancer.
Conclusion

Emotional distress, frightened feeling, anxiety, and depression are important outcomes, and when severe it has been associated with reduced treatment compliance and elevated risk of disease progression and decrease to quality of life.

This study determined the most frequent health problems in women with breast cancer. The nurse’s role in oncology institute is very important in relationship between patient’s emotion regulation and adaptation to breast cancer. Further research on emotion regulation may help women with breast cancer better manage the emotional and frightened feeling challenges associated with diagnosis and treatment.

The need to reinforce self-care, increasing self-confidence, support, and information in dimensions such as emotional function, sexual enjoyment, and body image is very important.

References

PMId:35383383

PMId:31912902

PMId:34079102

PMId:26077640

PMId:28573448


PMId:15576622

PMId:29057450

PMId:15263042

PMId:19097139

PMId:22430269


PMId:21980014

PMId:25313756

PMId:25915539

PMId:18060733

PMId:25915539

PMId:18060733

PMId:16505430

20. Frick E, Tyrrell M, Panzer M. Anxiety, depression and quality of life of cancer patients undergoing radiation therapy:
PMid:17371421

PMid:23881515

PMid:6880820

PMid:32820237

PMid:15695497

PMid:34330229

PMid:25081724

PMid:28875248

PMid:11239124

PMid:28641472


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