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Disclosure and insight of breast cancer diagnosis and mental well-being: A pilot study among Azerbaijani women

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cancer; oncology; breast cancer; awareness; anxiety

1 | INTRODUCTION

Breast cancer is the most common cancer among women in developing countries and one of the main causes of decreased quality of life and high level of distress, especially due to body-debilitating surgeries and adverse effects of chemotherapy.¹ In some cultures, diagnosis of breast cancer has additional burden due to stigma associated with the word “cancer.” Information about having breast cancer may lead to severe negative reactions ranging from acute distress to depression, including risk of suicide.² For this reason, health providers avoid disclosure, ie, direct interpersonal communication of the diagnosis to the patient, or delegate disclosure with incomplete or no elucidation of diagnosis. Informed knowledge about diagnosis of cancer is a necessary step for a patient in her ability to fully participate and make informed decisions about treatment.

Azerbaijan is a secular Eurasian country, with a predominantly Turkic population that gained its independence in 1991. The cultural disposition underscores importance of privacy and family ties. In recent years, the practice of medicine is increasingly aligned with modern treatments. The country has endorsed the importance of patients' rights legislation.³ The incidence of breast cancer reported by the State Statistical Committee in 2014 was 32.8 per 100 000 women. The death rate from breast cancer is the leading cause of cancer-related deaths among women contributing 12% of all female cancer deaths.⁴ The mental well-being of Azerbaijani women undergoing surgical treatment for breast cancer has not been previously assessed. To our knowledge, the relationship between insights, ie, degree of intrapersonal awareness, of cancer diagnosis and mental well-being has also not been previously studied.

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CONFLICT OF INTEREST

The authors have declared no conflicts of interest.

2 | METHODS

2.1 | Participants

The study was conducted in January to March 2015 in the Breast Cancer Unit in the Oncology Service of the Azerbaijan Medical University: 1 of 2 major cancer centers in Baku that serves the entire country. The participants were women with primary breast cancer who were consecutively referred to treatment with mastectomy. Participants with recurrent breast cancer, known major psychiatric illness, and concurrent psychotropic medication treatment histories were excluded. The institutional ethics committee approved the study. The informed consent was obtained from all the participants. The participants were informed that the interviewer was a psychiatrist and that the study will involve questions on their social circumstances and mental well-being in the context of their current illness.

2.2 | Measures

Patient interviews elicited sociodemographic information (age, level of education, marital status, employment status, and children) and direct inquiry about the patient's insight into her breast condition rated as follows: *Full-Insight (F-In)*—awareness of “breast cancer” with use of the term and rationale for treatment; *Partial-Insight (P-In)*—awareness of serious “breast illness” only and need for treatment; and *No-Insight (N-In)*—no awareness of serious nature of breast condition and reassurance by family that all will be fine. The probe questions were “What was the main reason for your referral to this hospital?”; “What are your main complaints?”; “What do you think is the main reason for these complaints?”; and “Were you informed by your doctor about your diagnosis?” The participant's documented definitive knowledge of diagnosis of breast cancer was further confirmed from the medical record.

2.3 | Hospital anxiety and depression scale

The Azerbaijani version of hospital anxiety and depression scale validated in Turkish was used to assess anxiety and depression. It has 14 items (0–3) with 7-item subscales each for anxiety and depression.⁵ For each subscale, the scores are ranked: 0–7—normal, 8–10—borderline, 11 and higher—clinical.⁶

2.4 | Statistical analysis

Social and demographic characteristics were analyzed using frequency tables. Because of the small number of individuals in the “P-In” group, the “N-In” and “P-In” groups were collapsed into 1, yielding a group size of 12 patients. Anxiety and depression levels in this group were then compared to the 11 patients with “F-In” using nonparametric tests. Mann-Whitney U test was used to assess the relationship between depression, anxiety or combined anxiety-depression scores (the dependent variables), and the level of disease awareness (the independent variable). The correlations of these scores with various demographic variables were assessed using Kruskal-Wallis test. The significance level was determined at $\alpha = .05$. All statistical analyses were completed using SPSS 23.0.

3 | RESULTS

The study participants were women (age 18 years) with confirmed oncological diagnosis of primary breast cancer (*for sociodemographic characteristics, please see Table 1*). Of the total 23 study participants, 11 (47.8%) had F-In and 12 (52.2%) had P-In/N-In. The score distribution on the anxiety subscale was 12 (52.2%) with normal, 5 (21.7%) with borderline, and 6 (26.1%) participants with clinical scores. On the depression subscale, 19 (82.6%) participants scored normal, 2 (8.7%) borderline, and 2 (8.7%) clinical. The depression scores ($\text{mean}(\pm\text{SD}) = 5 \pm 4.58$) overall were lower than anxiety scores ($\text{mean}(\pm\text{SD}) = 7.43 \pm 5.17$).

There was a significant correlation between reported anxiety scores with the level of cancer insight ($U = 108.5$, $P = .007$) and anxiety/depression combined scores with the level of cancer insight ($U = 100.0$, $P = .037$) (Figure 1); the correlation was not significant for depression scores alone ($U = 87.0$, $P = .21$). The anxiety level in the F-In group was statistically significantly higher than in the N-/P-In group. Statistical analysis revealed no association between anxiety and depression scores and such sociodemographic variables as age, relationship status, employment, education ($P > .05$).

4 | DISCUSSION

The findings underscore a relationship between prognostic awareness and level of expressed anxiety among women undergoing treatment with mastectomy for primary breast cancer. The anxiety symptoms were reported by 47.8% compared to 17.2% participants endorsing depression symptoms in the borderline and clinical range. As reflected by the diagnostic criteria of major depression in the ICD-10 and DSM-5, a minimum period of 2 weeks is needed for depression symptoms to fully mature. The participants in the current study were interviewed on average 5–7 days following the establishment of breast cancer, and the level of depression symptoms reported therefore ought not to be interpreted as unremarkable. Greater degree of depressive response is likely to emerge over time with greater reflective awareness and impact of losses associated with illness.⁷

Breast disease imposes serious psychological and sociocultural burdens for woman in Azerbaijan and similar cultures: fear of stigmatization related to perception of being damaged or being fated to die. Although this could not be quantitatively assessed in the present study, fear of body changes due to mastectomy could have further triggered anxiety irrespective of insight of cancer diagnosis. Converging evidence from studies in Europe and United States shows that awareness of disease is in fact a long-term positive indicator of mental well-being and higher quality of life.⁸ In these settings, standards of informed consent, privacy, as well as legal mandates to ensure patient knowledge and empowerment in treatment choices are essential part of physician-patient communication. Improved access to information allows patients to achieve optimal understanding of their illness and more realistic and optimistic expectations.⁹ Enriched awareness of cancer also leads to early screening and treatment and improves survival.

This study has a number of limitations. First, it reflects cross-sectional state anxiety and anxiety-depression symptoms prior to surgery. Second, the study sample size was small.

Results of the current study can form the basis for proposals for multicentered approaches with greater sample sizes to draw attention to the urgent training of clinical oncologists and allied specialists in these settings.

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Key points

- The current practice in medical care of women with breast cancer in Azerbaijan is to hold back disclosure of cancer diagnosis to mitigate severe psychological distress
- In this clinical pilot study, Azerbaijani women with diagnosis of primary breast cancer referred for treatment with mastectomy were directly interviewed to ascertain level of insight. All participants were administered to the Hospital Anxiety and Depression Scale in Azerbaijani
- There was a significant correlation between anxiety scores with the level of participants' awareness regarding diagnosis of cancer
- These findings are counterintuitive when compared to results of studies from Europe and United States
- Future studies need to further understand the role of cultural and religious factors in perception of breast cancer and mental well-being

FIGURE 1.
Boxplot for insight on disease and anxiety scores. Insight on disease: None—N-In. Partial—P-In. Full—F-In

TABLE 1

Social and demographic characteristics of participants

N = 23	
Mean age ($\pm$ SD)	50.39 $\pm$ 11.01
Education	
• High school	14 (60.8%)
• Community college	4 (17.4%)
• University	5 (21.7%)
Employment	
• Employed	7 (30.4%)
• Unemployed	11 (47.8%)
• Retired	5 (21.7%)
Marital status	
• Married	16 (69.6%)
• Divorced/widowed	6 (26.1%)
• Single	1 (4.3%)