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Clinical Correspondence

Psychological burden at the time of diagnosis among Mexican breast cancer patients

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Introduction

Research on psychological complaints among breast cancer patients has mainly focused on patients living in developed countries, and has lagged behind in patients living in developing countries [1]. Prior studies with breast cancer patients from developed countries found a prevalence of 15% to 21% for anxiety and 3% to 39% for depression [2,3]. In contrast, a meta-analysis among minority patients with different types of cancer showed that Hispanic patients residing in the USA had the highest levels of distress and depression compared with other ethnic minority groups [4].

Currently, little is known about the prevalence of psychological complaints among newly diagnosed Mexican breast cancer patients. It becomes important to investigate these issues for the planning of psychosocial care, given the high demand of services in the Mexican healthcare system. To our knowledge, only two studies have investigated anxiety and depression in Mexican breast cancer patients. The prevalence reported in these studies ranged between 14% and 27% for anxiety and between 14% and 28% for depression [5,6]. Patients in one of these studies were at the treatment phase, but one study did not report the evaluation phase of the patients. Thus, it is difficult to draw a conclusion regarding the psychological state of Mexican breast cancer patients at the time of diagnosis.

Previous research findings suggest that the stress experienced after a cancer diagnosis is a strong predictor of adaptation to the disease [7]. Hence, investigating the initial emotions experienced by cancer patients after diagnosis could be helpful to identify patients who are

at risk of poor adaptation and might benefit from psychosocial care. Therefore, the main aim of this study was to determine the prevalence of anxiety and depression symptoms in newly diagnosed Mexican breast cancer patients. Moreover, we evaluated the influence of sociodemographic and medical factors on these psychological outcomes.

Method

Participants

In this cross-sectional study, a consecutive sample of female breast cancer patients was recruited in 2013. Inclusion criteria were (a) confirmed diagnosis of breast cancer by a biopsy test, (b) being newly diagnosed with breast cancer, (c) age between 18 and 75 years old, and (d) comprehension of the Spanish language. Exclusion criteria were (a) previous history of cancer, (b) medical treatment had already begun, (c) any psychiatric disorder that requires hospitalization, and (d) involvement in another psychological research protocol at the time of recruitment.

Breast cancer patients were recruited at a public hospital in Mexico City. The committee of investigation and ethics of this hospital approved the study (R-2013-3504-14). Two psychologists approached the participants at the outpatient oncology clinic immediately after the oncologist delivered the breast cancer diagnosis. Patients meeting the inclusion criteria were provided with detailed information about the study and invited to participate in a structured interview to fill-in the self-reports. Patients who agreed to participate signed the informed consent.

Measures

Data from the self-report questionnaires were collected using a face-to-face structured interview because most of the patients attending this hospital had a low educational status, and reading comprehension could not be guaranteed. Sociodemographic and medical data were collected with a questionnaire (Table 1). Participants completed the 6-item short version of the state scale from the Spielberg State and Trait Anxiety Inventory (STAI) [8], and the Spanish version of the Center for Epidemiologic Studies Depression Scale (CESD) [9]. We used a threshold of > 13 as indicative of clinical levels of anxiety, and ≥ 16 represented clinical levels of depression. Cronbach's alpha for the entire scales were 0.79 and 0.94, respectively. The STAI was translated into Spanish using a forward translation method, and an expert judgment to evaluate and make adjustments to the final version.

Statistical analysis

We computed the prevalence of the two main outcomes according to the thresholds previously stated. To test

the relationship between sociodemographic and medical characteristics on anxiety and depression, we performed *t*-tests for variables with two categories, one-way ANOVAs for variables with more than two categories and Pearson correlations for continuous variables. All cited *p*-values were two-sided with a significance level of 0.05.

Results

A total of 113 patients were approached, from which 103 met the inclusion criteria. Ten declined to participate in the study (response rate 92%). Fifteen patients could not be interviewed on the day that they received the diagnosis. To maintain homogeneity of the group, we decided to exclude these patients from the analyses. Thus, the final sample for the statistical analysis in the present study consisted of 78 breast cancer patients. Their characteristics are described in Table 1.

The majority (88.5%) of patients showed clinical symptoms of anxiety with a mean level above the threshold

Table 1. Differences by sociodemographic and medical characteristics, on the two main outcomes ($n = 78$)

Characteristic	n	% (Mean \pm SD) ^a	Anxiety		Depression	
			M (SD)	r ^b	M (SD)	r
Age	—	54.6 \pm 10.9		−0.164		−0.054
No. of children	—	2.8 \pm 1.7		0.041		0.118
Schooling years	—	8.0 \pm 4.7		0.011		−0.163
No. of comorbid conditions	—	1.4 \pm 0.53		0.021		0.051
Marital status						
Married	49	62.8	17.76 (3.88)		17.92 (15.19)	
Single	15	19.2	16.53 (3.56)		14.73 (12.03)	
Widow	14	18.0	16.57 (3.44)		13.86 (12.93)	
<i>p</i> -value			.40		.55	
Educational attainment						
Primary school	43	55.1	17.42 (3.67)		18.00 (15.32)	
Secondary school	12	15.4	17.83 (4.99)		16.92 (15.51)	
High school	23	29.5	16.83 (3.24)		13.74 (11.19)	
<i>p</i> -value			0.73		0.51	
Employment status						
Homemaker	51	65.4	17.04 (3.75)		15.94 (13.58)	
Working outside home	27	34.6	17.81 (3.75)		17.78 (15.50)	
<i>p</i> -value			0.39		0.59	
Cancer stage						
Stage I	15	19.2	17.80 (3.88)		19.67 (17.03)	
Stage II	24	30.8	16.88 (3.94)		13.17 (11.17)	
Stage III	39	50.0	17.38 (3.64)		17.49 (14.64)	
<i>p</i> -value			0.75		0.33	
Comorbidity						
Yes	45	57.7	17.89 (3.63)		17.89 (15.91)	
No	33	42.3	16.52 (3.80)		14.79 (11.46)	
<i>p</i> -value			0.11		0.34	
Significant life event						
Yes	28	35.9	17.25 (4.07)		20.50 (17.85)	
No	50	64.1	17.34 (3.59)		14.38 (11.30)	
<i>p</i> -value			0.92		0.11	

^aData for continuous variables are presented as the mean and standard deviation, and for categorical variables as percentage.

^bIntercorrelations between continuous variables and the two main outcomes. None of them were significant.

($M=17.31$, $SD=3.74$). Approximately 43.6% of the participants presented clinical symptoms of depression, with a mean level of 16.58 ($SD=14.20$), slightly above the threshold for clinical symptoms of depression. The results in Table 1 show that none of the sociodemographic or medical characteristics was significantly associated with any of the two main outcomes.

Discussion

A high proportion of Mexican breast cancer patients presented clinical symptoms of anxiety and, to a lesser extent but still frequent, depression at the time of diagnosis. The psychological burden was not significantly related to their sociodemographic and medical characteristics. The average score of anxiety in our study was similar to the results of a study with patients also interviewed on the day of being diagnosed [10]. Previous studies among newly diagnosed breast cancer patients from developed countries reported lower anxiety and depression rates, than the rates in our study [2,3]. Nevertheless, a study that addressed the various phases in the treatment trajectory reported the highest psychological complaints at the diagnosis phase [3].

The high prevalence of clinical symptoms in our study may be related to the previous period of uncertainty experienced by the patients, or the shock caused by the diagnosis disclosure, especially for anxiety. As patients were interviewed on the day that the diagnosis was disclosed, they could have been more vulnerable after hearing it. Some contextual factors could also have contributed to a higher emotional disturbance. Among the Mexican public hospitals, the oncologist has approximately 10 min with each patient to deliver the diagnosis and the information related to it. Additionally, patients' knowledge on breast cancer and its treatment is often limited.

The study has some limitations. First, the sample size used in this study was rather small. It may be that the small sample size did not allow us to identify significant differences between the sociodemographic characteristics of the sample and the two main outcomes. Second, the participants were from a medium–low socioeconomic status. Thus, the generalizability of the results to other sectors of the Mexican population diagnosed with breast cancer should be cautious.

Previous studies with Latina breast cancer survivors showed high rates of depressive symptoms after 1 up to 6 years of being diagnosed [11]. Hence, further studies should be conducted with Mexican breast cancer patients using longitudinal designs to observe whether the high levels of anxiety and depression found in this

study are maintained or decrease over the trajectory of the disease.

The findings of this study allow us to conclude that there is a need to extend the duration of the consultations in which the diagnosis is disclosed and to give the patients the possibility to talk with a social worker or psychologist after the consultation. We suggest to integrate psychosocial care services on a regular basis into the Mexican public hospitals, to assist patients facing a breast cancer diagnosis.

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Conflict of interest

The authors have no funding or conflicts of interest to disclose.

Key points

- According to the International Agency for Research on Cancer, over 52% of new breast cancer cases have occurred in developing countries recently. To investigate the psychological issues faced by breast cancer patients from developing countries is a priority, as such, data are needed for the planning of psychosocial care policies in these countries.
- The main aim of this study was to assess the prevalence of anxiety and depression in newly diagnosed Mexican breast cancer patients.
- Most patients had a low socio-economic background, and approximately 50% of the patients were diagnosed with an advanced stage of the disease. A high proportion of the patients presented clinical symptoms of anxiety (88.5%) and depression (43.6%).
- Further studies should be conducted with Mexican breast cancer patients using longitudinal designs and larger sample sizes to observe whether the high levels of psychological complaints found in the present study decrease over the trajectory of the disease.
- Nevertheless, these results warrant the need to improve psychosocial care policies in the Mexican public hospitals to better assist Mexican breast cancer patients.

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