

Body Image and Self-Esteem in Women with Breast Cancer at the José Carrasco Arteaga Specialty Hospital, Ecuador

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Abstract

Introduction: Breast cancer is the most prevalent neoplasm in women worldwide and nationally, so there is a need to investigate the changes that are generated in the life of the cancer patient at the physical, psychological and social levels.

Objective: Determining body image and self-esteem in women with breast cancer treated at the "José Carrasco Arteaga" Specialty Hospital, Cuenca 2022 -2023.

Methodology: A quantitative study, cross-sectional analytical design was carried out with a sample of 141 women with breast cancer treated at the "José Carrasco Arteaga" Specialty Hospital. A direct interview was carried out with the participants of the study applying a questionnaire with sociodemographic and clinical data elaborated by the authors, the Hopwood Body Image scale and the Rosenberg Self –Esteem scale. The analysis was performed with the SPSS v24.0 program using descriptive and inferential statistics, considering statistically significant results at $p < 0.05$ values.

Results: Of the study participants, 70.9% have a high body image disturbance and 17.7% have a low degree of self-esteem. In addition, a statistically significant association is identified between body image disturbance and the sociodemographic variables, age (p-value=0.000), marital status (p-value=0.039), and employment status (value= 0.011). Similarly, there is a significant association between self-esteem and type of treatment with a p-value = 0.048.

Conclusion: In the study a dissatisfaction with body image is evident in most women, however, they presented a high degree of self-esteem.

Keywords: breast cancer, body image, self-esteem, women.

Introduction

Breast cancer is the most common neoplasm in women worldwide, considered a global public health problem (5). Treatments for breast cancer are mostly invasive, highlighting visible changes in physical appearance, which can lead to a deterioration of body image and self-esteem in women with the disease (6).

The World Health Organization (WHO) points out that breast cancer is one of the leading causes of mortality for women in 2020 stating that "Breast cancer originates in the cells of the lining (epithelium) of the ducts (85%) or lobes (15%) of the glandular tissue of the breasts" (

1). The cancerous tumor is first delimited in the duct or lobe called in situ, usually does not cause symptoms and is characterized by a low ability to spread. After a period of time, this cancer in situ manages to grow larger and invade the surrounding breast tissue, transforming into an invasive breast cancer in which it will spread to adjacent lymph nodes or other organs of the body causing metastasis (1).

Breast cancer causes multiple effects on the patient's life, which intensify according to the advanced stages of the disease. It is a problem that has psychological, emotional and social impacts, affecting the dimensions related to emotional functionality, future prospects, insomnia, anxiety and sexual enjoyment. Therefore, patients diagnosed with breast cancer are at a decisive moment, due to the fact that they face changes in their lifestyle (9). When women experience this series of changes in their body, they can cause a less attractive body image and decreased self-esteem (2).

In addition, it is important to emphasize that self-esteem is not only affected by changes in body image but by new adaptations in their social circle, since surgical treatments modify the current or future life expectations of the person such as possible maternity, sexuality and acceptance by their partner before physical changes and loss of generic identity because the breasts are a symbol of sexual differentiation,

desire and breastfeeding (3). In general, the changes caused by this disease affect the well-being of women and therefore influence the deterioration of the quality of life.

Body image is "a subjective representation of the body that groups representations derived from the self-perception and valuation of that body and includes the interaction of anthropometric measurements or real body, the perception of the body and the ideal body or the one where the standards of beauty and health are defined" (4).

Body image reflects a direct personal perception and self-assessment of one's physical appearance, so negative thoughts and feelings related to one's own body indicate a disturbance of body image (10). According to Fazzino et al. (11) mention that "in oncology, body image change is a psychological dimension of the cancer experience, which varies according to the clinical characteristics and phases of the disease and its effects on functioning and quality of life" (10).

Self-esteem is an important factor to consider in people's lives, as it provides a state of emotional well-being. It refers to the concept that one has about oneself evaluating the personal characteristics and the affective valence of these. Rosenberg conceives self-esteem as a feeling towards oneself, which can be positive or negative, which is constructed through an evaluation of one's own characteristics, and includes feelings of satisfaction with oneself (12).

Therefore, the personality of the woman will condition her way of facing the disease and, consequently, her well-being. Women with higher self-confidence, emotional stability, positive thoughts, and high levels of self-esteem will be more likely to have psychological well-being (13). Psychosocial adaptation or adjustment to cancer is a process during which each person seeks to solve specific problems and achieve some control over the events triggered by the disease. Thus, self-esteem influences attitudes of approval regarding the capacity and value that the individual has of himself (14).

Women undergoing cancer treatment have to face various stressful situations due to the adverse effects of different treatments, for example, it has been shown that women undergoing mastectomy have a low level of self-esteem and a more negative body image than women undergoing conservative surgeries (7).

Materials and methods

Study design and sample selection

A quantitative analytical study was conducted which included 141 women with breast cancer at the José Carrasco Arteaga hospital. The participating women were selected through intentional non-probability

sampling attending the hospital's outpatient clinic. Each of the participants was explained what the study consisted of and the corresponding informed consent was obtained, before the application of the data collection instruments.

Evaluation of subjects

A structured interview was applied to all participating women in order to obtain information related to breast cancer, structured in three sections, which are: Questionnaire expofeso d onde consist of sociodemographic and clinical variables prepared by the authors, Hopwood Body Image Scale instrument used in the United Kingdom where high reliability was shown with a Cronbach's alpha 0.93 (15) and in Spain indicating a Cronbach's alpha of 0.96 (8). It consists of ten items that deal with behavioral, affective and cognitive dimensions, with a Likert-type score of 0 to 3 (0 = Nothing; 1 = A little; 2 = Quite; 3 = A lot). Their natural score has a range of 0 to 30, where the higher the score, the greater the alteration of body image (15).

The Rosenberg Self-Esteem Scale: evaluates the degree of satisfaction that the person has with himself, is composed of 10 items focused on feelings of respect and acceptance of himself, half are stated positively and the other half negatively. This scale has been validated in countries such as Spain and Colombia with Cronbach's alpha of 0.86 (16). Their score is measured using the Likert scale, where items are answered on a four-point scale (4= Strongly agree, 3= Agree, 2= Disagree, 1= Strongly disagree). For correction, the scores of the negatively stated items are reversed (3,5,8,9,10), then all the items are added, ranging the total score between 10 and 40 (66). Its interpretation based on the final score is: 30 to 40: High self-esteem, 26 to 29: Average self-esteem and 25 or less: Low self-esteem, to patients who met the inclusion criteria and decided to participate freely and voluntarily.

Statistical analysis

The data collected through the surveys were transcribed into a digital database and analyzed using the SPSS v.24 program and Microsoft Excel v.2019. Descriptive statistics were performed by means of frequencies and percentages, Pearson's Chi-square contrasts were also used to observe association between the variables studied, p-value and confidence interval to measure the relationship between the different variables of the research and compliance with the objectives. Data were tabulated and analyzed and statistically significant when $p < 0.05$.

Results

A total of 141 women participated in the study, according to the sociodemographic characteristics there is evidence of a higher frequency in the age group of 51 to 64 years with 37.6%, followed by the group of

31 to 50 years with 36.9%, and 2.8% belongs to an age of 18 to 30 years; With regard to marital status, 44.7 per cent are married, in terms of education, 38.3 per cent have third-level education; In relation to their employment situation we observe that 37.6% are working, 26.2% belong to the group of retirees, 12.1% are in a period of absence due to their illness; according to the economic remuneration they receive is mostly equal to the basic salary with 31.9% and 24.8% do not receive any economic remuneration, as described above can be seen in Table 1.

Table 1. Distribution according to sociodemographic variables of 141 women with breast cancer treated at the "José Carrasco Arteaga" Specialty Hospital.

Variable	Frequency N= 141	Percentage 100%
Age		
18 to 30 years	4	2,8
31 to 50 years	52	36,9
51 to 64 years	53	37,6
Over 65 years old	32	22,7
Marital status		
Single	32	22,7
Married woman	63	44,7
Divorced Widow	17	12,1
Common-law marriage	18	12,8
	11	7,8
Level of education		
Primary	32	22,7
High school	43	30,5
Third level	54	38,3
Fourth level	12	8,5
Employment status		
Works	53	37,6
Unemployed	17	12,1
Retired	37	26,2
Other	34	24,1

Economic remuneration

Less than basic salary	20	14,1
Equal to basic salary	45	31,9
Greater solderor basic	41	29,1
No	35	24,8

Source: Database

Elaboration: Authors

Table N.2 shows that stage II breast cancer is the most frequent in women participating in the study with 36.9%, followed by 28.4% in stage III, 19.9% in stage I, 13.5% in stage IV and 1.4% in stage 0, this being the lowest.

Table 2. Distribution of 141 women with breast cancer treated at the "José Carrasco Arteaga" Specialty Hospital, according to cancer stage.

Variable	Frequency N=141	Percentage 100%
Stage of cancer		
Stage 0	2	1,4
Estadio I	28	19,9
Estadio II	52	36,9
Estadio III	40	28,4
Estadio IV	19	13,5

Source: Database

Elaboration: Authors

Table N.3 shows the different treatments received by women with breast cancer treated at the "José Carrasco Arteaga" Specialty Hospital, showing that the most frequent treatment is chemotherapy with 84.4%, followed by radiotherapy with 51.8%, hormone therapy with 25.5% and only 11.3% receiving hormone therapy. Regarding the surgical treatment of the breast, we found that 48.2% underwent radical surgery, and 31.9% had conservative surgery.

Table 3. Distribution of 141 women with breast cancer treated at the "José Carrasco Arteaga" Specialty Hospital, according to type of treatment received.

Type of Treatment	Frequency N=141	Percentage 100%
Chemotherapy		
Applies	119	84,4
Not Applicable	22	15,6
Hormone therapy		
Applies	36	25,5
Not Applicable	105	74,5
Biological Therapy		
Applies	16	11,3
Not Applicable	125	88,7
Radiotherapy		
Applies	73	51,8
Not applicable	68	48,2
Conservative Surgery		
Applies	68	48,2
Not applicable	73	51,8
Radical Surgery		
Applies	45	31,9
Not applicable	96	68,1

Source: Database

Elaboration: Authors

Table N.4 shows that 70.9% of women with breast cancer have a high alteration of their body image, unlike 29.1% have a low alteration of their body image, results obtained from the application of the Hopwood Body Image questionnaire in 141 women with breast cancer.

Table 4. Description of the alteration of body image in 141 women with breast cancer treated at the "José Carrasco Arteaga" Specialty Hospital.

Body image	Frequency N=141	Percentage 100%
Low Alteration	41	29,1
High Alteration	100	70,9

Source: Database

Elaboration: Authors

Table N.5 indicates the degree of self-esteem in women with breast cancer according to the Rosenberg Self-Esteem Scale, reflecting that 17.7% have low self-esteem, 26.2% have medium self-esteem and 56% have high self-esteem, that is, there is a higher percentage of women who have not been affected in terms of their self-esteem.

Table 5. Description of the degree of self-esteem in 141 women with breast cancer treated at the "José Carrasco Arteaga" Specialty Hospital.

Degree of Self-Esteem	Frequency N=141	Percentage 100%
High self-esteem	79	56,0
Average Self-Esteem	37	26,2
Low self-esteem	25	17,7

Source: Database

Elaboration: Authors

Regarding the relationship between the level of alteration of body image and sociodemographic variables, a statistically significant association can be identified between the alteration of body image with age (p-value=0.000), marital status (p-value=0.039), and employment status (value= 0.011). Table 6

Table 6. Association of Hopwood Body Image test with sociodemographic variables, in 141 women with breast cancer treated at the "José Carrasco Arteaga" Specialty Hospital.

Age				
18 to 30 years	0 (0.0)	4 (2.8)	4 (2.8)	20.427
31 to 50 years	7 (5.0)	45 (31.9)	52 (36.9)	0.000
51 to 64 years	16 (11.3)	38 (27.0)	54 (38.3)	0.000- 0.000
Over 65 years old	18 (12.8)	13 (9.2)	31 (22.0)	
Marital status				
Single	3 (2.1)	29 (20.6)	32 (22.7)	
Married woman	22 (15.6)	41 (29.1)	63 (44.7)	10.079
Divorced Widow	6 (4.3)	11 (7.8)	17 (12.1)	0.039
Common-law marriage	8 (5.7)	10 (7.1)	18 (12.8)	0.032- 0.039
	2 (1.4)	9 (6.4)	11 (7.8)	
Level of education				
Primary	10 (7.1)	22 (15.6)	32 (22.7)	0.242
High school	13 (9.2)	30 (21.3)	43 (30.5)	0.971
Third level	15 (10.6)	39 (27.7)	54 (38.3)	0.968- 0.975
Fourth level	3 (2.1)	9 (6.4)	12 (8.5)	
Employment status				
Works	11 (7.8)	42 (29.8)	53 (37.6)	11.125
Unemployed	2 (1.4)	15 (10.6)	17 (12.1)	0.011
Retired	18 (12.8)	19 (13.5)	37 (26.2)	0.041- 0.049
Other	10 (7.1)	24 (17.0)	34 (24.1)	
Economic remuneration				
Less than base salary 5 (3.5)				
Equal to base salary	17 (12.1)	15 (10.6)	20 (14.2)	2.827
Greater than base salary	9 (6.4)	28 (19.9)	45 (31.9)	0.419
None	10 (7.1)	32 (22.7)	41 (29.1)	0.411
		25 (17.7)	35 (24.8)	0.430

Source: Database

Elaboration: Authors

In the present Table 7, it is observed that there is no statistically significant association between the alteration of body image and the clinical variables: stage of cancer, type of treatment in women with breast cancer. However, we can see that the women with the greatest

body image dissatisfaction are those in advanced stages and who have undergone treatments such as chemotherapy, radiotherapy and surgery.

Table 7. Description of the Hopwood Body Image Scale associated with clinical variables, in 141

Cancer stage					
Stage 0 Stage I	0 (0.0)	2 (1.4)	2 (1.4)		
Estadio II	13 (9.2)	15 (10.6)	28 (19.9)	5.940	
Estadio III	14 (9.9)	38 (27.0)	52 (36.9)	0.204	
Estadio IV	10 (7.1)	30 (21.3)	40 (28.4)	0.067- 0.076	
	4 (2.8)	15 (10.6)	19 (13.5)		
Type of treatment					
Chemotherapy					
T. Hormonal T.	28 (19.9)	91 (64.5)	119(84.4)		
Biological	13 (9.2)	23 (16.3)	12 36 (25.5)	5.249	
	4 (2.8)	(8.5)	16 (11.3)	0.386	
Radiotherapy	20 (14.2)	53 (37.2)	73 (51.8)	0.226- 0.243	
C.Conservadora	17 (12.1)	51 (36.2)	68 (48.2)		
C. Radical	17 (12.1)	28 (19.9)	45 (31.9)		

This table identifies that there is no statistically significant association between the degree of self-esteem and the sociodemographic variables: age, marital status, level of education, employment status and economic remuneration.

Table 9. Description of the Rosenberg Self-Esteem Scale associated with sociodemographic variables in 141 women with breast cancer treated at the "José Carrasco Arteaga" Specialty

Variables	Degree of Self-Esteem			Chi square	P value
	sociodemographic	Self-esteem	Self-esteem		
		High	Medium	Low	Total
					IC 95 %
Age					
18 to 30 years	2 (1.4)	1 (0.7)	1 (0.7)	4 (2.8)	2.483
31 to 50 years	27 (19.1)	17 (12.1)	8 (5.7)	52 (36.9)	0.870
51 to 64 years	33 (23.4)	12 (8.5)	9 (6.4)	54 (38.9)	0.887- 0.899
Over 65 years old	17 (12.1)	7 (5.0)	7 (5.0)	31 (22.0)	

Marital status					
Single	19 (13.5)	8 (5.7)	5 (3.5)	32 (22.7)	7.814
Married woman	30 (21.3)	21 (14.9)	12 (8.5)	63 (44.7)	17 0.452
Divorcee	11 (7.8)	3 (2.1)	3 (2.1)	(2.1)	0.259- 0.313
Widow	13 (9.2)	1 (0.7)	4 (2.8)	18 (12.8)	
Common-law marriage	6 (4.3)	4 (2.8)	1 (0.7)	11 (7.8)	
Level of education					
Primary	14 (9.9)	9 (6.4)	9 (6.4)	32 (22.7)	7.150
High school	24 (17.0)	12 (8.5)	7 (5.0)	43 (30.5)	0.307
Third level	31 (22.0)	14 (9.9)	9 (6.4)	54 (38.3)	0.013- 0.017
Fourth level	10 (7.1)	2 (1.4)	0 (0.0)	12 (8.5)	
Employment status					
Works	32 (22.7)	8 15 (10.6)	6 (4.3)	53 (37.6)	5.235
Unemployed	(5.7)	5 (3.5)	4 (2.8)	17 (12.1)	0.514
Retired	23 (16.3)	6 (4.3)	8 (5.7)	37 (26.2)	0.128- 0.141
Other	16 (11.3)	11 (7.8)	7 (5.0)	34 (24.1)	
Economic remuneration					
Less than basic salary					
Equal to basic salary	14 (9.9)	2 (1.4)	4 (2.8)	20 (14.2)	7.776
Greater than basic salary	27 (19.1)	10 (7.1)	8 (5.7)	45 (31.9)	0.255
No	24 (17.0)	12 (8.5)	5 (3.5)	41 (29.1)	0.251- 0.268
	14 (9.9)	13 (9.2)	8 (5.7)	35 (24.8)	

Source: Database Preparation: Authors

Table N.10 indicates the relationship between the degree of self-esteem and the type of treatment received by women with breast cancer treated at the " José Carrasco Arteaga" Specialty Hospital, where a statistically significant association can be observed with a $p = 0.048$ value.

Table 10. Description of the Rosenberg Self-Esteem Scale associated with clinical variables in 141 women with breast cancer treated at the "José Carrasco Arteaga" Specialty Hospital, Cuenca 2022-2023.

Variables	Degree of Self-Esteem				Chi square	
	Self-esteem High	Self-esteem Medium	Self-esteem Low	Clinical p-value	CI 95%	
Stadium						
Stage 0 Stage I	2 (1.4)	0 (0.0)	0 (0.0)	2 (1.4)	10.204	
Estadio II	19 (13.5)	6 (4.3)	3 (2.1)	28 (19.9)		
Estadio III	28 (19.9)	17 (12.1)	7 (5.0)	52 (36.9)	0.251	
Estadio IV	23 (16,3)	9 (6.4)	8 (5.7)	40 (28.4)	0.006- 0.009	
	7 (5.0)	5 (3.5)	7 (0.5)	19 (13.5)		
Type of treatment						
Chemotherapy						
T. Hormonal	64 (45.4)	34 (24.1)	21 (14.9)	119(84.4)	18.431	
T. Biological	26 (18.4)	5 (3.5)	5 (3.5)	36 (25.5)		
Radiotherapy	(9.2)	2 (1.4)	1 (0.7)	16 (11.3)	0.048	
C.Conservadora	44 (31.2)	13 (9.2)	16 (11.3)	73 (51.8)	0.042- 0.05	
C. Radical	40 (28.4)	15 (10.6)	13 (9.2)	68 (48.2)		
	29 (20.6)	10 (7.1)	6 (4.3)	45 (31.9)		

Source: Database

Preparation: Authors

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Table 10. Description of the Rosenberg Self-Esteem Scale associated with clinical variables in 141 women with breast cancer treated at the "José Carrasco Arteaga" Specialty Hospital, Cuenca 2022-2023.

Variables	Degree of Self-Esteem			Chi square	
	Self-esteem	Self-esteem	Total self-esteem	Clinical p-value	CI 95%
	High	Medium	Low		
Stadium					
Stage 0 Stage I	2 (1.4)	0 (0.0)	0 (0.0)	2 (1.4)	10.204 0.251 0.006- 0.009
Estadio II	19 (13.5)	6 (4.3)	3 (2.1)	28 (19.9)	
Estadio III	28 (19.9)	17 (12.1)	9 (5.0)	52 (36.9)	
Estadio IV	23 (16,3)	9 (6.4)	10 (5.7)	40 (28.4)	
	7 (5.0)	5 (3.5)	7 (0.5)	19 (13.5)	
Type of treatment					
Chemotherapy					
T. Hormonal	64 (45.4)	34 (24.1)	21 (14.9)	119(84.4)	18.431 0.048 0.042- 0.05
T. Biological	26 (18.4)	13 (9.2)	5 (3.5)	36 (25.5)	
Radiotherapy	(9.2)	2 (1.4)	1 (0.7)	16 (11.3)	
C.Conservadora	44 (31.2)	13 (9.2)	16 (11.3)	73 (51.8)	
C. Radical	40 (28.4)	15 (10.6)	13 (9.2)	68 (48.2)	
	29 (20.6)	10 (7.1)	6 (4.3)	45 (31.9)	

Source: Database

Elaboration: authors

Discussion

Breast cancer is the neoplasm with the highest prevalence in women worldwide and nationally, so there is a need to constantly investigate various factors involved in it, or in turn the consequences that are generated in the life of the cancer patient at a physical, psychological and social level (2). In relation to the problems exposed above, the present research emphasized knowing the body image and self-esteem that women with breast cancer possess, as well as their sociodemographic and clinical characteristics.

In the present research, the participation of 141 women was obtained, who are predominantly in an age range of 51 to 64 years, 44.7% of women are married, 38.3% have tertiary education and 37.6% are working. Similarly, the article entitled "Quality of life in Chilean breast cancer survivors" indicates that the most frequent age was less than 60

years, 67% were married or living with their partner, the participants had mostly higher education and 49.5% worked (16).

As it agrees with the research of Izydorczyk and associates (17) carried out in postmastectomized women with breast cancer where they determine in the participants an age of 48 to 55 years, 62.5% were married and had a higher education 45.3%. However, our results differ from the study called "Body image and its relationship with coping strategies: The views of Iranian breast cancer women following surgery" which shows a frequency in the age of 31 to 40 years and a decreased employment status only 12.2% work and 82.8% are housewives (18).

In relation to the clinical stage at the time of diagnosis, it is shown that 36.9% of women are in stage II, 28.4% in stage III, and 1.4% in the initial stage, this being the lowest, the frequencies are similar to a study entitled "Prevalence and factors associated with depressive symptomatology in women with breast cancer in a public hospital in Lima, Peru" in which they indicate that patients are mainly located in stage II (4) and III (30.9%), so we can infer that there is a higher frequency of women with breast cancer in localized and advanced stages (19). Likewise, in the research of Lewis-Smith, Diedrichs and Harcourt (20) in the United Kingdom indicate that the diagnosis of breast cancer was more frequent in stages II (27.3%) and III (36.4%).

With regard to treatment, it is identified that 84.4% received chemotherapy, 51.8% radiotherapy, 25.5% hormonal therapy and 80.2% underwent breast surgery either conservative (48.2%) or radical (31.9%), as happened in the article conducted in Iran by Amini-Tehrani et al.(21) aimed at 223 breast cancer patients where the most common treatments were chemotherapy (61.4%), radiotherapy (39.9%), conservative surgery (35.4%) and mastectomy (34.5%). Similarly, in the research "Quality of life in breast cancer patients: the moderating role of family stress" where the majority received chemotherapy and 77% of women had undergone breast surgery either conservative surgery or mastectomy (2, 2).

Body image was evaluated using the Hopwood questionnaire, which assesses behavioral, affective and cognitive dimensions, in the present research it is found that 70.9% of women with breast cancer have a low body image, that is, most patients feel dissatisfied with their body. These results may relate to the effects of chemotherapy and radiation therapy, such as hair loss, rashes, and consequences on physical appearance. In addition, body image changes drastically when the breast is partially or totally removed, scars remain and an important part of the body is lost, which in women represents a symbol of femininity (18).

A study conducted in Stockholm - Sweden to women with and without breast cancer after bilateral risk reduction surgery after the application of the Body Image Scale (BIS) questionnaire, found several body image

problems such as feeling less feminine after surgery, difficulties to look naked, feel the body less complete, dissatisfaction with their scar, indicating in most participants a low body image (2, 3). In addition, the study indicates that after one year the negative impact on body image persists (23). On the other hand, in the research "Body Image of Women Submitted to Breast Cancer Treatment" carried out in Brazil with a sample of 103 women with breast cancer who had followed oncological treatment for at least 12 months, the authors identified a body image dissatisfaction of 74.8% (24). In both studies, an altered body image prevails in a large part of the study population, similar to the present research.

In 2020, the research entitled "Mediating role of body image between sexual functioning and marital intimacy in Pakistani women with breast cancer " whose objective was to evaluate the relationship between marital intimacy with body image, the authors determine that women more dissatisfied with their body image tend to show more problems in their intimate life, participants were mostly diagnosed in stages II and III, undergoing chemotherapy and mastectomy treatments (25). Similarly, our results indicate that married women have a greater alteration in body image. In addition, there is evidence of an association between low body image and marital status ($p=0.039$).

The article called "Body image disorder in 100 Tunisian female breast cancer patients" which through the application of the Body Image Scale (BIS) identified a prevalence of body image disorder of 45%, where the most affected women were between 41 and 60 years old, married, had professional activity and a low socioeconomic level (26). However, in this research an alteration of body image of 70.9% is reported, although it is similar to the most affected sociodemographic characteristics of the participants.

The study by Ghaffari et al. (27) conducted in a sample of 275 women with breast cancer who had undergone surgical treatment, chemotherapy, radiotherapy and hormone therapy, recognized the existence of a significant and inverse relationship of age ($p = 0.006$) with body image, and another significant relationship with the type of surgery ($p < 0.001$) where the lumpectomy group had a healthier body image than the postmastectomy. Similarly, the present study found a significant association with age ($p=0.000$), however, it differs in terms of the relationship between type of treatment and alteration of body image ($p=0.386$).

In 2017, a survey of more than 1100 breast cancer survivors identified high levels of body image satisfaction in women who underwent breast-conserving surgery, while women who received unilateral mastectomy and contralateral prophylactic mastectomy had low body image (2, 8).). Unlike our study demonstrating low body image in patients who underwent breast-conserving surgery, however, there is no statistically

significant association between body image alteration and clinical variables: stage and treatment.

Research called "Factors Associated with Depression Symptoms in Women After Breast Cancer" identified that most women showed high self-esteem, and those with medium or low self-esteem showed more symptoms of depression, were younger, had comorbidities, and had undergone radical mastectomy (2, 9).). Similarly, in the present study there is mostly high self-esteem (56%), medium self-esteem (26.2%) and low self-esteem (17.7%).

When analyzing self-esteem in women with breast cancer, no significant association was found with sociodemographic variables since $p > 0.05$ values were obtained. The aforementioned information is consistent with the research entitled "Body image and self-esteem in women with breast cancer participating in a psychosocial intervention program" in which Sebastián et al. determined that there is no association of self-esteem with the sociodemographic variables age ($p = 0.281$), marital status ($p = 0.451$), level of education ($p = 0.571$) and work ($p = 0.255$) in the follow-up period carried out six months after starting their treatment (30).

According to the above, as aspects to be highlighted, we can conclude that there is a significant relationship between the body image variable and the sociodemographic variables, in addition to an association between self-esteem and the type of treatment, corresponding to the clinical variables. Therefore, we emphasize that the contribution of our results contributes to the integration of new knowledge in the psychological field in relation to the present oncological pathology, since it supports professionals in this field in the understanding of the perception of body image and the degree of self-esteem of women with breast cancer.

Conclusions

In the present research, after having generated the analysis of results, the following conclusions are reached:

- Women with breast cancer treated at the José Carrasco Arteaga Specialty Hospital mostly have a low body image, that is, they feel dissatisfied with their body.
- In reference to the application of the Rosenberg Self-Esteem Scale, we found a predominant high self-esteem in the respondents.
- According to the sociodemographic characteristics, it is established that the majority of participants are between 51 and 64 years old, are married, with a third-level education, are working and receive an economic remuneration equal to the basic salary.

- According to the clinical variables, the respondents were predominantly in stage II and III, the most frequent treatments they receive is chemotherapy, followed by radiotherapy and breast-conserving surgery.
- In the present research, a statistically significant association was determined between body image and sociodemographic variables: age, marital status, employment status. On the other hand, a statistically significant association was obtained between self-esteem and the clinical variable: type of treatment.

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