Coping strategies and self-esteem in women with breast cancer

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Título: Estrategias de afrontamiento y autoestima en mujeres con cáncer de mama.
Resumen: El afrontamiento del diagnóstico de cáncer de mama y el uso de diferentes estrategias es clave para superar esta situación estresante. Diversas variables psicológicas están relacionadas con la manera de afrontar la enfermedad, destacando entre ellas la autoestima. Se analiza la influencia que la edad, de las pacientes con cáncer de mama, pueda tener en las estrategias de afrontamiento ante la enfermedad, analizando si la autoestima influye en el uso de las estrategias y observar la posible interrelación entre estas variables. Se evalúa la autoestima mediante *Rosenberg Self-Steem Scale* y las estrategias de afrontamiento con la escala *COPE-28*, en sus versiones españolas. La muestra estaba formada por 121 mujeres, con cáncer de mama, y edades entre los 30 y los 77 años ($M = 49.33$, $DT = 8.90$). Los resultados muestran que el afrontamiento activo fue la estrategia más utilizada. Se encontraron relaciones significativas, mediadas por la edad, entre las puntuaciones en autoestima y las estrategias de afrontamiento activas, como son la reevaluación positiva, aceptación o el apoyo emocional. Conocer la manera de afrontar la enfermedad ayudará en el desarrollo de intervenciones psicológicas que mejoren la calidad de vida de estas pacientes durante todo el proceso de enfermedad oncológica.
palabras clave: Psicooncología; estrategias psicológicas; afrontamiento activo; reevaluación positiva.

Abstract: Coping with a breast cancer diagnosis and the use of different strategies is key to overcoming this stressful situation. Various psychological variables are related to how patients cope with the disease, one of which is self-esteem. The current study analyses the how age influences patients with breast cancer in terms of the coping strategies used to deal with the disease, exploring whether self-esteem influences the use of such strategies, along with the possible interrelation between these variables. Self-esteem is studied using the Rosenberg Self-Esteem scale and coping strategies were assessed using the COPE-28 scale, both in their Spanish versions. The sample consisted of 121 women (with breast cancer), aged between 30 and 77 years ($M = 49.33$, $SD = 8.90$). The results indicate that active coping is the strategy with the highest score. We found significant, age-mediated relationships between self-esteem scores and active coping strategies such as positive reframing, acceptance, or use of emotional support. Knowing how to cope with the disease will help in the development of psychological interventions that improve the quality of life in these patients throughout the oncological disease process.
Keywords: Psycho-Oncology; psychological strategies; active coping; positive reframing.

Introduction

The diagnosis of breast cancer is a stressful event that causes psychological distress (Hamama-Raz, 2012; Pereira, Figueiredo & Fincham, 2012; Kangas, 2013). Women undergoing cancer treatment have to face a variety of potentially stressful situations, and it has been shown that mastectomised women have a lower level of self-esteem and a more negative body image than women undergoing conservative surgeries, with significant differences between self-esteem scores according to the type of surgical intervention (Segura, García & Saúl, 2014). Alopecia induced by chemotherapy represents the most distressing side effect of chemotherapeutic agents and is of great concern for most patients, negatively affecting their mood and self-esteem (Dunnill, Al-Tameemi, Collett, Haslam & Georgopoulos, 2018). Other symptoms such as frequent and intense fatigue, and sleep disturbances that increase progressively throughout the chemotherapy treatment (Henneghan, Carter, Stuifbergan, Parmelee & Kesler, 2018) usually affect patients with breast cancer, in addition to frequent and intense emotional disturbances such as anxiety (Yang et al., 2016) and depression (García-Torres & Alós, 2013).

Coping strategies are a determining factor for adapting to these situations (Hopman & Rijken, 2014). According to their consequences, the strategies can be categorised as being either more or less adaptive (Figueroa, Contini, Lacunza, Levín & Suedan, 2005).

Coping strategies such as avoidance (Lan, L. Zhang, Y, Zhang & Yan, 2018), repression (Cardona, Jaramillo & Díaz, 2013), passive coping (Vargas, Herrera, Rodríguez & Sepúlveda, 2011), self-blaming (Teo, Fingeret, Liu & Chang, 2016), acceptance (Browall, Kenne, Persson, Wengström & Gaston-Johansson, 2016) and ruminative thoughts (González, Ibáñez & Barrera, 2017), are all generally considered to be less adaptive. When faced with a cancer diagnosis, it has been found that these strategies predicted a greater number of depressive symptoms and lower self-esteem (Cieslak & Golusinski, 2018). When a person develops coping strategies that are mainly of the avoidant type, such as denial, the absence of positive reframing, or self-blaming —all of which are associated with a low quality of life— they usually present emotional states that make it difficult to directly address the stressful event (Brunault et al., 2016).

In contrast, strategies such as positive reframing (Ortiz et al., 2014), problem solving, and coping based on religion (Park, Waddington & Abraham, 2018), which are generally considered more adaptive, are associated with a higher quality of life (Finck, Barradas, Zenger & Hinz, 2018), a minor alteration of mood (Ringwald et al., 2016), fewer depressive symptoms (Avis, Levine, Naughton, Case & Naftalis, 2013) and a higher level of self-esteem (Ortiz et al., 2014). These

more adaptive coping strategies are related to greater psychological wellbeing (Danhauer et al., 2013).

The most frequently observed adaptive strategies are characterized by being active and focused on the problem (Cao, Qi, Cai & Han, 2018), the most notable of these being positive reframing and personal growth, active coping and planning, followed by the use of religious beliefs (Granero-Molina et al., 2014), acceptance, and social support (Cardenal & Cruzado, 2014). It has been observed that the majority of women present an active coping style, helping them to carry out activities that are enjoyable such as reading, walking, or physical exercise (Falo, Villar, Rodríguez, Mena & Font, 2014).

These adaptive strategies tend to be associated with variables such as self-esteem, optimism (Dumalaon-Canaria, Prichard, Hutchinson & Wilson, 2018) and family support, all of which are variables that intervene and influence the quality of life of cancer patients, particularly those with breast cancer (Eun & Young, 2014). This quality of life can be affected by various risk factors in patients with breast cancer, these factors being mainly individual variables such as younger age, and less use of active coping, acceptance, or coping based on religion (Brunault et al., 2016; Elumelu, Asuzu & Akin-Odanye, 2015). High scores in self-esteem have shown to be mediators in coping and adaptability in mastectomised women (Gómez, Bragado & Hernández, 2014). Thus, a radical mastectomy is associated with an increase in depressive symptomatology (Sun, Ang, Darryl & López, 2018), alterations in body image (Phillips & McAuley, 2015) and low self-esteem (Pintado, 2017).

Finally, age is an aspect to be assessed when analysing the diagnosis of breast cancer, with a younger age being consistently associated with a greater negative impact of the diagnosis. Conversely, at an older age, an association with a more adaptive and positive coping style is usually observed (Boyle, Stanton, Ganz & Bower, 2017). Younger women are more concerned about their family, economic, or work responsibilities (Rosen, Rodriguez-Wallberg & Rosenzweig, 2009), which, among other issues leads to more problematic coping.

The present work aims to: 1. Explore the possible influence of age on coping psychologically with breast cancer, 2. Describe the coping strategies developed by women based on their self-esteem scores, and 3. Analyse the relationship between age, self-esteem, and coping strategy.

The proposed hypotheses of this study were as follows:
- The most commonly used coping strategies will be active coping, acceptance, or positive reframing.
- Age influences the development of psychological coping strategies, such that the older the patient, the higher the likelihood of using more adaptive coping strategies.
- Women with high self-esteem scores will preferentially develop coping strategies of the following types: active coping, use of emotional support, social support, positive reframing, acceptance, and humour.

Method

Participants

The sample consisted of 121 women, aged between 30 and 77 years ($M = 49.33$, $SD = 8.90$).

The average time that had elapsed since the cancer diagnosis was 50.75 months ($SD = 60.91$). Of the total sample, 115 (95%) women had undergone a mastectomy compared with 6 (5%) who had not. The mean time period since the mastectomy was 45.07 months ($SD = 57.67$). Regarding the type of treatment received, 51 women (42.1%) had received chemotherapy, 18 (14.9%) received radiotherapy, 42 (34.7%) had undergone mixed treatment, 5 (4.1%) had received hormonal therapy and 5 (4.1%) had received other treatments.

Instruments

An ad hoc interview was administered in which participants were asked to give their age, establishing three groups (a: 30-45 years, b: 46-52 years and c:> 53 years), along with variables related to the disease (time that had elapsed since the diagnosis (in months), type of intervention (mastectomy / no mastectomy), time that had elapsed since the intervention (in months), type of treatment), and marital status (single, living independently; single, living with someone; in a non-cohabiting partnership; living with partner, divorced, or widow).

To assess the coping strategies presented by the patients, the COPE-28 (Morán, Landero & González, 2010) was used, in its version adapted to Spanish the Brief COPE scale (Carver, 1997). This scale presents a total of 28 items, which are answered on a Likert scale using 4 response alternatives (Not at all, A little, Fairly and Very much). The instrument evaluates the following main coping strategies: active coping (initiating direct actions to eliminate or reduce the stressor), planning (thinking about how to cope with the stressor, and planning strategies), use of emotional support (getting emotional support, understanding), use of social support (receiving help and advice from others), religion (tendency to turn to religion in times of stress), positive reframing (looking for positive aspects of the problem and trying to improve or grow from the situation), acceptance (accept the facts of what is happening, and that they are real), denial (denying the reality of the stressful event), humour (laughing at the situation), self-distraction (attempting to become distracted by other activities to avoid focusing on the stressor), self-blaming (blaming oneself for the situation), behavioural disengagement (reducing efforts to deal with the stressor), venting (tendency to express feelings of emotional distress) and substance use (consuming alcohol or other substances to feel good or to help in dealing with the stressor). The reliability coefficient of the scale, assessed using Cronbach's alpha, was acceptable, with $\alpha = .758$, in accord with the assumptions of George & Mallery (2003, p.231).

In addition, the Rosenberg Self-Esteem Scale (Rosenberg, 1965) was used to measure self-esteem in its Spanish version, which has been validated for the clinical population (Vázquez, Jiménez & Vázquez-Morejón, 2004). This test, of a one-dimensional nature, is composed of a total of 10 items, whose answers are provided on a Likert-type ordinal scale, with 4 alternative answers (1 = Strongly agree, 2 = Agree, 3 = Disagree, 4 = Totally disagree). Half of the items are stated positively (items from 1 to 5) and the other half negatively (items from 6 to 10), obtaining a total score of between 10 and 40.

The results can be grouped into three categories (Rosenberg, 1965): low self-esteem (scores less than 25), average self-esteem (scores between 26 and 29), and high self-esteem (scores between 30 and 40). The scale has an acceptable internal consistency value ($a = .889$).

Procedure

The criteria for inclusion in the sample included being a woman, presenting a diagnosis of breast cancer, not presenting any diagnosed psychological disorders, having completed the chemotherapy treatment, and being in the review phase of the disease. Following a review of the medical records and after checking that they met the inclusion criteria, contact was made with the patients in individual sessions following their corresponding oncological review consultation. The format of the tests was paper-pencil and they were always advised by a trained psychologist. In addition, patients were informed about the main objectives of the study, along with the anonymity and confidentiality of the data provided, the willingness to participate in the study, as well as the right to access, rectify, or withdraw the data in relation to their responses. The evaluations were carried out in the Oncology Unit of the Juan Ramón Jiménez Hospital in Huelva, Spain.

The study was approved by the Bioethics Committee of the University and by the Andalusian Betuaria Foundation for Health Research (FABIS). All the procedures followed comply with the ethical standards of the committee responsible for human experimentation (institutional and national) and the 1975 Declaration of Helsinki, as revised in 2000. The written informed consent of all the participants was obtained.

Data analysis

The analyses conducted were based on descriptive statistics (means, standard deviations, and percentages). For the study of the relationships between quantitative variables and categorical variables with more than two groups, an ANOVA was conducted, with Tukey's tests as post hoc and $\eta^2 p$ comparisons as measures of effect size. Finally, with the intention of evaluating the explanatory and predictive capacity of the self-esteem and age variables for the various coping strategies, a linear regression analysis was carried out.

Results

Among the main characteristics related to the oncological disease, it was found that the mean time elapsed since the women were diagnosed with breast cancer was 50.75 months ($SD = 60.91$), and the mean time since the mastectomy was 45.07 months ($SD = 57.66$).

When observing the strategies used for coping with the cancer diagnosis, the one that showed the highest score among the patients was active coping ($M = 6.17$, $SD = 1509$); conversely, the coping strategy with the lowest score was the use of substances ($M = 2.66$, $SD = 1.179$).

When analysing coping strategies between the three age groups established in the study (a: 30-45 years, b: 46-52 years and c: > 53 years), it was found that age determines the use of active coping strategies such as acceptance ($F_{(2,120)} = 4.708$, $p = .011$) and humour ($F_{(2,120)} = 4.062$, $p = .020$). In the corresponding post hoc analyses, Tukey's test revealed that these differences according to the age groups are significant between b and c, with b > c ($p = .007$) for acceptance, and also, b > c ($p = .019$) for humour. No differences were established in the development of coping strategies according to marital status (Active coping ($F_{(5,120)} = 1.165$, $p = .331$); Planning ($F_{(5,120)} = .574$, $p = .720$); Use of emotional support ($F_{(5,120)} = .580$, $p = .715$); Social support ($F_{(5,120)} = .204$, $p = .960$); Religion ($F_{(5,120)} = 1.660$, $p = .150$); Positive reframing ($F_{(5,120)} = 1.313$, $p = .264$); Acceptance ($F_{(5,120)} = .915$, $p = .474$); Denial ($F_{(5,120)} = 1.166$, $p = .330$); Humour ($F_{(5,120)} = 2.156$, $p = .064$); Self-management ($F_{(5,120)} = .218$, $p = .954$); Self-blaming ($F_{(5,120)} = .661$, $p = .653$); Behavioural disengagement ($F_{(5,120)} = .456$, $p = .808$); Venting ($F_{(5,120)} = 1.334$, $p = .255$) and Substance use ($F_{(5,120)} = .911$, $p = .477$).

Table 1. Coping strategies for dealing with the diagnosis (COPE-28) according to age groups.

| | Age | | | | | | | | |
| | 30 to 45 years (a) | | 46 to 52 years (b) | | ≥53 years (c) | | | | |
	M	SD	M	SD	M	SD	$F_{(2,120)}$	p	η^2
Active coping	6.30	1.525	6.48	1.284	5.72	1.648	2.868	.061	.046
Planning	5.73	1.017	5.75	1.143	5.25	1.080	2.740	.069	.044
Emotional support	5.78	1.701	5.93	1.336	5.87	1.666	.090	.914	.001
Social support	5.51	1.483	5.68	1.156	5.62	1.442	.169	.845	.002
Religion	4.57	1.893	4.30	2.052	4.10	2.060	.524	.594	.008
Positive reframing	5.22	1.973	5.61	1.919	5.37	1.930	.433	.649	.007
Acceptance	5.94	1.352	6.38	1.261	5.45	1.568	4.708	.011	.073
Denial	4.00	1.615	3.52	1.422	4.05	1.535	1.544	.218	.025
Humour	3.73	1.502	4.35	1.495	3.50	1.320	4.062	.020	.025
Self-distraction	4.94	1.373	5.41	1.419	4.92	1.575	1.479	.232	.024
Self-blaming	3.30	1.525	3.43	1.420	3.77	1.576	1.047	.354	.024
Disengagement	3.35	1.602	3.20	1.772	3.27	1.648	.077	.926	.001
Venting	4.40	1.423	4.77	1.444	4.60	1.565	.620	.540	.010
Substance use	2.65	1.206	2.73	1.282	2.60	1.032	.125	.883	.002

As the results in Table 2 show, there is a relationship between the different scores obtained in self-esteem and the use of each of the coping strategies. The self-esteem scores were grouped into low self-esteem (a = < 25 points), average self-esteem (b = 26-29 points) and high self-esteem (c = 30-40 points). Women with high self-esteem scores reported the use of more active coping strategies (F (2,120) = 6.955, p = .001), with differences between c and a (p = .016), and c > b (p = .020). This same relationship is observed in the strategies based on the acceptance of the oncological diagnosis (F (2,120) = 11.433, p <.001) where c > a (p = .024), c > b (p = .017) and positive reframing of the situation (F (2,120) = 6.711, p = .002) where c > a (p = .001) and c > b (p = .002).

When faced with a cancer diagnosis, receiving emotional support and the understanding and comfort of others appears to be significantly related to self-esteem, with these strategies being more likely to appear in those patients with high scores on self-esteem (F (2,120) = 6.252, p = .003). In the post hoc analyses these differences were shown to occur between the following self-esteem groups: c > a (p = .010) and c > b (p = .071). On the other hand, the women with low self-esteem score use, to a lesser extent, strategies based on social support (F (2,120) = 4.099, p = .019), the score on this strategy differing between self-esteem groups as follows: c > b (p = .063).

Table 2. Strategies for coping with the diagnosis (COPE-28) based on self-esteem scores (Rosenberg-EAR Self-Esteem Scale).

| | Self-esteem Low (a) | | Self-esteem Moderate (b) | | Self-esteem High (c) | | | | |
	M	SD	M	SD	M	SD	$F_{(2,120)}$	p	η^2
Active coping	5.00	1.414	5.28	1.489	6.40	1.435	6.955	.001	.105
Planning	5.33	1.322	5.00	0.679	5.68	1.108	2.675	.073	.043
Emotional support	4.55	1.130	5.14	1.292	6.09	1.540	6.252	.003	.096
Social support	4.88	1.536	4.92	1.141	5.78	1.318	4.099	.019	.065
Religion	5.33	1.224	4.35	2.239	4.21	2.011	1.300	.276	.022
Positive reframing	3.55	1.943	4.00	1.358	5.78	1.817	11.433	<.001	.162
Acceptance	4.88	1.536	5.07	1.328	6.16	1.367	6.711	.002	.102
Denial	4.44	1.666	4.35	1.645	3.71	1.485	1.865	.159	.031
Humour	3.55	1.236	3.00	1.176	4.04	1.498	3.406	.036	.055
Self-distraction	4.44	1.236	4.85	1.791	5.20	1.428	1.347	.264	.022
Self-blaming	4.33	1.322	3.78	1.625	3.38	1.489	1.930	.150	.032
Disengagement	4.00	1.732	3.50	1.344	3.17	1.699	1.162	.317	.019
Venting	4.55	1.424	3.64	1.215	4.74	1.473	3.573	.031	.057
Substance use	2.77	1.092	2.78	1.251	2.63	1.178	0.150	.861	.003

When analysing the correlations between the self-esteem scores and the coping strategies used, it is possible to observe (Table 3) that the strategies most strongly correlated with self-esteem are those that are more active and adaptive, particularly positive reframing (r = .502, p < .001), use of

emotional support (r = .423, p <.001), active coping (r = .421, p < .001), social support (r = .371, p < .001), acceptance (r = .342, p < .001) and planning (r = .280, p = .001).

In contrast, passive and less adaptive coping strategies, such as denial (r = -.229, p = .006), behavioural disengage-

ment ($r = -.212$, $p = .010$) and self-blaming ($r = -. 194$, $p = .017$), correlate inversely and significantly with self-esteem. Thus, women with a lower self-esteem score deal with their

cancer by denial of the disease and by blaming themselves for its development.

Table 3. Regression model taking age and self-esteem score as predictor variables (Rosenberg Self-Esteem Scale) for coping strategies (COPE-28).

		r	p	β	ΔR^2	p
Active coping	Age	-.133	.073	-.133		.146
	Self-esteem	.421	<.001	.438*	.190	<.001
Planning	Age	-.144	.057	-.144		.114
	Self-esteem	.280	.001	.298*	.088	.001
Emotional support	Age	.065	.238	.065		.477
	Self-esteem	.423	<.001	.420*	.175	<.001
Social support	Age	.093	.154	.093		.308
	Self-esteem	.371	<.001	.365	.132	<.001
Religion	Age	-.114	.107	-.114		.214
	Self-esteem	-.143	.058	.-.133	.018	.146
Positive reframing	Age	.075	.208	.075		.415
	Self-esteem	.502	<.001	.500*	.247	<.001
Acceptance	Age	-.142	.060	-.142		.120
	Self-esteem	.342	<.001	.360*	.128	<.001
Denial	Age	0.59	.260	.059		.519
	Self-esteem	-.229	.006	.-.237*	.056	.009
Humour	Age	-.128	.081	-.128		.161
	Self-esteem	.134	.071	..149	.022	.104
Self-distraction	Age	.007	.471	.007		.941
	Self-esteem	.172	.030	.173	.030	.060
Self-blaming	Age	.149	.051	.149		.102
	Self-esteem	-.194	.017	-.211**	.044	.020
Disengagement	Age	-.030	.370	-.030		.741
	Self-esteem	-.212	.010	-.211**	.044	.022
Venting	Age	.012	.447	.012		.894
	Self-esteem	.211	.010	.211**	.044	.021
Substance use	Age	-.044	.316	-.044		.632
	Self-esteem	-.149	.051	-.147	.021	.112

*p < .001; **p < .05

Next, the predictive capacity of self-esteem with respect to each of the coping strategies was analysed, having controlled for the effect of age (Table 3). The results show that self-esteem increases the explanatory capacity of the model by 24.7% with respect to the age variable, when positive reframing is used as a coping strategy ($p < .001$) ($\beta = .500$, $p < .001$). And when emotional support is used as a strategy, 17.5% of the model is accounted for by self-esteem ($p < .001$), with a predictive capacity of $\beta = .420$ ($p < .001$). For coping based on social support, self-esteem increases the proportion of variance explained with respect to age by 13.2% ($p < .001$). A similar relationship can be observed when coping is based on the acceptance of cancer, thus increasing the proportion of variance explained by self-esteem by 12.8% ($p < .001$) ($\beta = .360$, $p < .001$) once age has been controlled. Self-esteem also increases the explanatory power of the use of planning strategies by 8.8% ($p = .001$) with respect to age, with a predictive value of ($\beta = .298$, $p < .001$).

The less adaptive and passive coping strategies have a lower explanatory value, particularly denial, a strategy that explains only 5.6% of the variance ($p = .009$) ($\beta = -.237$, $p < .001$).

Discussion

The aim of the study was to analyse the influence of age and self-esteem on the use of coping strategies used by female oncological patients with breast cancer. Active coping appears to be the strategy most used by these women, which is in accord with other observations in the literature (Dumala-on-Canaria, Prichard, Hutchinson & Wilson, 2018; Finck, Barradas, Zenger & Hinz, 2018; Ortiz, et al., 2014; Park, Waddington & Abraham, 2018).

In terms of our first objective, which sought to determine the influence of the age of the patients on the strategies used to address the diagnosis and development of cancer, it was found that this variable has an impact on the development of such strategies. Thus, women between the ages of 46 and 52 were those with the highest scores on acceptance and humour strategies. In spite of data that appears to indicate a relationship between age and coping strategies (You, Wang, Rodríguez, Wang & Lu, 2018, Brunault et al., 2016) in which younger people tend to use more emotionally-focused ways of coping (Compas et al., 1999), our findings reveal that it is the 46-52 year age group that is more strongly linked to the use of active coping strategies (acceptance, humour).

Moreover, it was found that women who have high self-esteem scores are those who show a greater use of coping strategies of the following types: active coping, use of emotional support, social support, positive reframing, acceptance, humour and venting. In particular, it was observed that those patients diagnosed with breast cancer who had high self-esteem tend to face the oncological disease in a more active and positive way, showing a greater tendency to use active coping and positive reframing. These results support the findings of other related studies such as that of Ortiz et al. (2014) who reported a link between the use of adaptive strategies such as positive reframing and self-esteem (Dumalaon-Canaria, Prichard, Hutchinson & Wilson, 2018).

When analysing the relationship between the variables of age, self-esteem, and coping strategies, it was observed how the inclusion of the self-esteem variable, when controlling for the age of the patients, increased the predictive capacity for the type of coping strategy used to face the disease. In a previous study, De Haro-Rodríguez et al. (2014) analysed the relationship between age and coping strategies, concluding that there was a negative relationship between age and strategies linked to problem-solving, social support, and positive reframing. However, they had not considered self-esteem scores to be a moderating factor in these patients, as shown in the results obtained in this work. However, Robert et al. (2010) showed that coping strategies such as religion are related to adjusting to the disease and maintaining adequate self-esteem, findings that are not confirmed in our work.

Therefore, the present findings make a novel contribution by revealing the impact of self-esteem — as an individual variable — on strategies for coping with breast cancer, along with finding that this is interrelated with the age variable.

As limitations of the study, it is important to emphasize that the design employed here does not allow for establishing the directionality or the causality of the relationships between self-esteem and coping strategies. Similarly, it is worth mentioning the transversal nature of this work, which does not allow us to identify how the use of coping strategies and self-esteem scores in these patients evolves throughout the development of the disease or with the advancement of age. Future studies should approach this issue using larger sample sizes and in different conditions and stages of the disease. Moreover, it would be of interest to use designs that explore the role of other variables such as quality of life, use of pharmacological therapy and / or surgery, physical impact, alterations in body image, along with other consequences derived from the disease and its treatment, all of which can affect the way in which patients cope during the course of the disease.

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