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Emotional coordination in coping with cancer: alexithymia, attachment and coping styles as predictors of emotional well-being in women undergoing radiotherapy

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ABSTRACT. The purpose of this study was to deepen our understanding of how to support the emotional well-being of patients subjected to cancer treatment. It was based on the idea that cancer and its treatment make vital demand on the patient and that successful adjustment to their new situation requires good emotional coordination with those closest to them. In a cross-sectional study, 54 women with cancer (breast and lymphoma) about to begin radiotherapy reported on questionnaires on symptom severity, coping strategies, alexithymia, attachment, affect, and emotional well-being. Predictive value of the rest of the variables on affect and well-being was analyzed by multiple linear regression. Perceived severity of symptoms was relevant for predicting affect and emotional well-being. Strong *Fear of rejection and abandonment* was the best predictor of negative affect, while the alexithymia component *Difficulty identifying feelings* was the best predictor of positive affect. A problem-solving coping style was also relevant for positive and negative affect. The interpersonal nature of the variables studied is discussed, along with the need to include them to prevent risk of worse adjustment to the consequences of the illness.

KEYWORDS: Alexithymia, Attachment, Coping with cancer, Psychological well-being.

Coordinación emocional en el afrontamiento del cáncer: alexitimia, apego y estrategias de afrontamiento como predictores de bienestar emocional en mujeres sometidas a radioterapia

RESUMEN. El objetivo del estudio es aportar conocimientos sobre cómo favorecer el bienestar emocional de pacientes en tratamiento por cáncer. Se parte de que el cáncer exige enfrentarse a tareas vitales para cuya resolución exitosa se requiere una buena coordinación emocional con las personas cercanas. En un estudio transversal, 54 mujeres con cáncer (mama y linfoma) a punto de comenzar radioterapia informaron a través de cuestionarios sobre: gravedad de los síntomas, modos de afrontamiento de la enfermedad, alexitimia, vínculo de apego, afectos positivos y negativos y bienestar emocional. Se analizó mediante regresión lineal múltiple el valor predictivo sobre los afectos y el bienestar del resto de variables. La gravedad percibida de los síntomas resulta relevante para predecir los afectos y el bienestar emocional. Un alto *Temor al rechazo y al abandono* es el mejor predictor de los afectos negativos, mientras el componente de la alexitimia *Dificultad para identificar emociones* lo es de los positivos. El estilo de afrontamiento orientado a la solución también resulta relevante para los afectos positivos y negativos. Se discute sobre el carácter interpersonal de las variables estudiadas y sobre la necesidad de incluirlas en la prevención del riesgo de peor ajuste a las consecuencias de la enfermedad.

PALABRAS CLAVE: Alexitimia, Vínculo de apego, Afrontamiento del cáncer, Bienestar emocional.

The threat to life posed by a disease such as cancer is a traumatic experience which modifies lifetime projects and daily tasks, and demands important adjustments, both in the first stages of

diagnosis and treatment, and in the later stage of recovering emotional stability after the crisis. The resources available to cancer patients for coping with this situation have repercussions on their well-being and on their facility for making those adjustments. The feeling of being threatened and the need to adjust not only affect the patient, but significant others who give them necessary support during the process. Therefore, good emotional coordination with

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the closest people may help resolve these challenges successfully. The ability to identify and describe feelings is particularly relevant, since both patients and those nearest them need to adequately express and understand the emotional needs or preferences generated as a consequence of the illness. Alexithymia (Sifneos, 1973; Taylor, Bagby, & Parker, 1997) includes a set of cognitive-affective manifestations, such as disconnection of thoughts and emotions, difficulties in differentiating and describing bodily and affective feelings and a tendency to specific thought. However, the relationship between cancer and alexithymia has been addressed more to find out its etiological role as a mediator in immune system functioning (Kojima, 2012; Manna et al., 2007), while its influence on quality of life has been explored less. Some studies on breast cancer note a negative effect of alexithymia on well-being (De Vries, Forni, Voellinger, & Stiefel, 2012) through other variables, such as high anxiety and depression (Luminet, Rokbani, Ogez, & Jadouille, 2007), little social support (Boinon et al., 2012), illness-related stress (Jensen-Johansen et al., 2013) or pain (Porcelli, Tulipani, Maiello, Cilenti, & Todarello, 2007).

The relationship of coping styles to well-being during the course of the illness as a source of stress has been widely studied, and how individuals confront the disease has been revealed as important to the health outcome and managing consequences (Livneh & Antonak, 2005; Dempster, Howell, & McCorry, 2015). Acceptance and positive reevaluation as styles of approaching the problem have been related to more well-being, and disengagement and avoidance to less. However, the style of seeking social support has provided less consistent results (Kraemer, Stanton, Meyerowitz, Rowland, & Ganz, 2011; Kvillemo & Bränström, 2014), or has been included as another type of approach strategy (Holland & Holahan, 2003). In our study, we were interested in finding out the relationship of well-being to three possible strategies for coping with the illness: orientation to problem-solving, withdrawal and problem avoidance, and seeking the support of significant others. The third could be understood from attachment theory as activating attachment behavior when

faced with cancer, which triggers affliction and emotional stress. Many studies have explored this relationship, and the secure attachment style has been related to better adjustment in managing the illness (Cicero, Lo Coco, Gullo, & Lo Verso, 2009; Lo et al., 2010; Mikulincer & Shaver, 2007). Very recently, relationships have been found between secure attachment and emotional well-being, particularly with the dimension of fear of rejection and abandonment (Alonso, Fontanil, & Ezama, 2016; Ávila, Brandão, Teixeira, Coimbra, & Matos, 2015; Fagundes, Jaremka, Malarkey, & Kiecolt-Glaser, 2014).

Understanding cancer and its treatment as a challenge in which the person affected and his/her immediate circumstances are the key actors, this study was designed to explore the influence of variables that reveal the characteristics of these relationships on emotional well-being. Our hypothesis argues that good emotional adjustment with intimate surroundings, measured as the ability to identify and express emotions, little fear of rejection and abandonment, and activating coping strategies directed at seeking support, significantly influences the well-being of women affected by cancer.

METHODS

• PARTICIPANTS

Fifty-four female patients at the Hospital Universitario Central de Asturias (HUCA), Spain, who had been diagnosed with different stages of breast cancer or lymphoma, and who were starting radiotherapy, participated in the study. They all had sufficient education to be able to use the evaluation instruments applied. The women's mean age was 47.58 years ($SD = 11.8$; range 17-72). 71.7% were living with their partner (whether married or not), 17% were single, 5.7% widows, and 5.7% separated/divorced. 56.91% had had some type of university education, 23.07% had finished high school, and 20% had primary education. Concerning their medical condition, 48 participants (88.8%) had breast cancer and six (11.1%) lymphoma. 75.8% had undergone

breast-conserving surgery and 22.4% had had a mastectomy, while 1.7% had not had surgery. 40% had previously had chemotherapy.

• INSTRUMENTS

Emotional well-being was assessed using the Spanish version (Sánchez-Cánovas, 1994) of the Positive and Negative Affect Schedule (PANAS) (Watson, Clark, & Tellegen, 1998). This 20-item questionnaire is distributed into two subscales, *Positive affect* and *Negative affect*. Each of them consists of 10 adjectives expressing mood on a five-point scale. The participants answer to what extent they have felt that way in the last month. Internal consistency of the scale for the Spanish population has a Cronbach's alpha of 0.87 to 0.91 (Sandín et al., 1999). In this study, internal consistency was $\alpha = 0.89$ for *Positive affect* and $\alpha = 0.90$ for *Negative affect*.

The Spanish adaptation by Badía, Gutiérrez, Wiklund, & Alonso (1996) of the Psychological General Well-Being Index (PGWB) (Dupuy, 1984) consists of 22 items with a 6-point Likert-type response scale which assess affective and emotional states since the illness was diagnosed. It acquires data on six dimensions related to well-being. This study used only the scale measuring *Positive well-being*. It was used in addition to the PANAS in order to have an appreciation of well-being for the period starting from diagnosis, avoiding application of the other one twice in a row for periods of time which partially overlap. Internal consistency in this group of items is $\alpha = 0.95$. Validation studies estimated the confidence level at $\alpha = 0.94$ (Badía et al., 1996).

The European Organization for Research and Treatment of Cancer Quality of Life Questionnaire (EORTC QLQ-C30), Spanish adaptation (Toledo, Barreto, Pascual, & Ferrero, 1993), evaluates the patient's own experience with the disease. It contains 53 items which combine dichotomous and 4 and 7-point Likert-type answers. This study used the *Symptoms* subscale, which evaluates the extent to which the patients perceive the presence of symptoms related to the disease and its treatment. Its internal consistency in this sample

was $\alpha = 0.87$. Previous studies (Toledo et al., 1993) have found alphas of 0.62 to 0.80 for this instrument.

The Spanish version by Soriano and Zorroza (1999) of the Coping Strategy Indicator (CSI) (Amirkhan, 1990) consists of 33 items on current reactions to cancer on a three-point scale. It identifies three dimensions corresponding to major coping strategies. The *Problem solving* dimension evaluates the use of instrumental and direct problem-solving strategies. *Avoidance* measures avoidance strategies as such and emotional withdrawal (distraction or fantasy). *Seeking social support* evaluates the demand for comfort, consolation or advice or simply seeking human contact as a necessity. Validation studies have found high internal consistency (Amirkhan, 1990). Our sample yielded alpha values of 0.79 for *Problem solving*, 0.86 for *Seeking social support*, and 0.34 for *Avoidance*.

Alexithymia was measured with the Spanish version (Martínez-Sánchez, 1996) of the Toronto Alexithymia Scale (TAS-20) (Taylor, Ryan, & Bagby, 1985), which consists of 20 items rated on a five-point Likert scale. It finds three factors: *Difficulty identifying feelings*, *Difficulty describing feelings*, and *Externally oriented thinking*. A total score can also be found by adding up the scores on the three scales. The instrument has shown good internal consistency in Spanish populations (Moral & Retamales, 2000). In this sample, the complete scale yielded an $\alpha = 0.86$, and the three subscales 0.79, 0.81 and 0.61, respectively.

The Scale of Preferences and Expectations in Close Interpersonal Relationships (*Escala de Preferencias y Expectativas en las Relaciones Interpersonales Cercanas*, EPERIC) (Fontanil, Ezama, & Alonso, 2013) is a questionnaire on adult attachment consisting of 22 items with five-point Likert scale answers. It has three subscales corresponding to the three components of attachment: *Fear of rejection and abandonment*, *Desire for closeness*, and *Preference for independence*. In the validation study, the instrument showed an internal consistency of $\alpha = 0.80$ for the complete scale and 0.82, 0.73 and 0.71 for the subscales respectively. In our sample it was 0.73 for the

complete scale, and 0.78, 0.69 and 0.62 for the three subscales.

•PROCEDURE

The participants were women who came to the hospital to receive radiotherapy for breast cancer or lymphoma and who were invited to participate in a psychological support program. The project was evaluated and approved by the hospital's ethics committee. After the required evaluation by the medical team, the psychotherapist interviewed the participants and informed them of the psychotherapeutic work and also of the study and its purposes, at the same time they were asked for their written informed consent. The acceptance rate for participation was 71.8%. The rest refused to provide data for the study, or had missed the first appointments so contact could not be renewed. The participants filled in the questionnaires at the hospital during their psychotherapy sessions.

• DATA ANALYSIS

First the Kolmogorov-Smirnov goodness-of-fit test was done, finding normality of distribution for all the variables except the CSI *Avoidance* subscale. In spite of the non-normal distribution of this scale, it was decided to use the Pearson's correlation to test the relationships among the variables. Because of the low internal consistency of this same scale in the Cronbach analysis, which showed that the participants for some reason were not interpreting the items on this scale uniformly, we had already considered its results with reservations. In continuation, a multiple linear regression analysis following the stepwise method was performed. The PANAS *Positive and Negative affect* scales and the score on the PGWB *Positive well-being* scale were taken as dependent variables. Possible predictors considered were attachment, illness coping styles, alexithymia and perceived symptom severity. The stepwise method was chosen because it implies a continuous checking of the contribution of each independent variable to the regression model after adding a new one, so that all the variables whose contribution to the model is better explained by other variables

are eliminated. In each case the supposition of independence of residuals was verified with the Durbin-Watson statistic. The Total alexithymia score was removed from the TAS-20 set to comply with the requirement for non-collinearity. The residual normal distribution was checked using Kolmogorov-Smirnov. The variables with a statistically significant relationship to the dependent variables at least at 5% were used to calculate the regression equations. The SPSS statistical software package was used (version 20.0 for Windows).

RESULTS

As expected, the emotional well-being indicators correlated significantly with perceived severity of the physical symptoms (all $r \geq |0.43|$, $p < 0.001$) (Table 1). They also showed a highly significant correlation with the attachment dimension *Fear of rejection and abandonment* (the higher the score, the worse the emotional and affective experience: 'positive affect' $r = -0.41$, $p = 0.002$; 'negative affect' $r = 0.49$, $p < 0.001$; 'positive well-being' $r = -0.48$, $p < 0.001$). Both the total alexithymia score and the subscale *Difficulty identifying feelings* had significant correlations with all the measures of emotional well-being, so a higher score on this scale means less well-being and positive affect and a high score on negative affect (all r between $|0.31|$ and $|0.51|$, $p < 0.05$ and < 0.001). The *Difficulty describing feelings* and *Externally oriented thinking* subscales also showed significant inverse correlations with positive affect ($r = -0.35$, $p = 0.01$; and $r = -0.28$, $p = 0.039$ respectively). Both the *Problem-solving* and *Avoidance* coping style scales correlated significantly with some of the well-being scales, although the correlations were generally lower than those for alexithymia or attachment. It is worth mentioning that the perception of severity of physical symptoms did not correlate with any scale used in the study except the three dependent variables and with the CSI *Avoidance* subscale, which as mentioned above, should be taken with caution due to its non-normal distribution and low internal consistency.

Table 1
Pearson's correlations coefficients for the variables studied (N=54)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
(1) PANAS Positive affect													
(2) PANAS Negative affect	-.713**												
(3) PGWB Positive well-being	.841**	-.739**											
(4) QLQ-C30 Symptoms	-.431**	.448**	-.533**										
(5) EPERIC Fear of rejection and abandonment	-.407*	.488**	-.457**	.142									
(6) EPERIC Desire for closeness	.037	-.105	-.064	.024	.051								
(7) EPERIC Preference for Independence	-.088	.158	-.099	.016	.153	.090							
(8) TAS-20 Total scores	-.456**	.309*	-.340*	.071	.218	-.073	.036						
(9) TAS-20 Difficulty identifying feelings	-.507**	.402*	-.423**	.195	.396*	-.101	.013	.846**					
(10) TAS-20 Difficulty describing feelings	-.349*	.233	-.188	-.164	.086	-.079	.185	.838**	.558**				
(11) TAS-20 Externally oriented thinking	-.282*	.132	-.230	.117	.044	-.009	-.109	.837**	.531**	.592**			
(12) CSI Problem-solving	.324*	-.339*	.215	.021	-.300*	.276*	-.004	-.318*	-.146	-.432**	-.263		
(13) CSI Seeking social support	-.027	-.034	-.156	.181	-.062	.106	-.247	-.254	-.063	-.393*	-.218	.389*	
(14) CSI Avoidance	-.282*	.248	-.303*	.319*	.209	.119	-.087	.382**	.450**	.152	.319*	.106	.058

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

Table 2

Multiple linear regression model for predicting positive affect

	B(SE)	Beta	t	Sig.
TAS-20 Difficulty identifying feelings	-.457(.12)	-.425	-3.86	.000
EORTC QLQ-C30 Symptoms	-.422(.15)	-.305	-2.78	.008
CSI Problem solving	.562(.21)	.286	2.68	.010
Constant	3.374(.59)		5.77	.000

Table 3

Multiple linear regression model for predicting negative affect

	B(SE)	Beta	t	Sig.
EORTC QLQ-C30 Symptoms	.582(.16)	.402	3.74	.000
EPERIC Fear of rejection or aban.	.438(.14)	.359	3.19	.002
CSI Problem solving	-.545(.25)	-.240	-2.15	.036
Constant	1.416(.72)		1.97	.055

Table 4

Multiple linear regression model for predicting PGWB

	B(SE)	Beta	t	Sig.
EORTC QLQ-C30 Symptoms	-.715(.18)	-.433	-4.02	.000
EPERIC Fear of rejection or aban.	-.382(.16)	-.279	-2.45	.018
TAS-20 Difficulty identifying feelings	-.300(.15)	-.234	-2.01	.050
Constant	6.719(.43)		15.69	.000

The multiple regression analysis for predicting positive affect (Table 2), yielded a model with three variables which explain 43.4% of the variance ($R^2 = 0.434$; Durbin-Watson = 2.467). In the prediction of negative affect (Table 3), the analysis arrived at a three-variable model which explains 43.7% of the variance ($R^2 = 0.437$; Durbin-Watson = 1.416). Prediction of well-being resulted in an equation which also has three variables explaining 45.3% of

the variance (Table 4), ($R^2 = 0.453$; Durbin-Watson = 2.238). The rest of the predictors did not account for significant variance in affect or PGWB emotional well-being.

The regression analysis showed perceived severity of symptoms to be an important predictor of both affect and mood. A high score on *Fear of rejection and abandonment* was a good predictor of negative emotions, but not positive, while the rest of the components of attachment did not correlate with any of the dependent variables. For alexithymia, a low score on *Difficulty identifying feelings* was the main predictor of positive affect and emotional well-being, while the other two components remained outside the equations. The types of coping showed more moderate relationships with the dependent variables. Coping directed at solutions predicted both negative and positive affect, although it is in third place in the regression equations.

DISCUSSION

This study found some variables characterizing relationships with significant others to be important for emotional well-being, which we consider of special relevance to oncological patients. The diagnosis and treatment of cancer is a coping situation particularly sensitive to good emotional regulation and adjustment in the most intimate setting, so it is an advantage to have the type of interaction which enables intense intimacy and fluidity in exchange of information on emotional needs or need for support. The study was designed to examine the predictive value of these variables for self-reported emotional well-being.

In agreement with our hypothesis, the results revealed a negative role of alexithymia in emotional well-being, especially the ability to identify emotional signals. The lower this ability, the less emotional well-being there is. Furthermore, of all the variables studied, this component showed the strongest predictive power for positive affect. Contrary to expectations, the ability to effectively describe and express feelings has very little influence. According to our results, it is the ability to

recognize, identify and differentiate the feelings themselves which is important to well-being more than the ability or need to express them. From a relational point of view, it could be argued that clear identification of the emotions achieves the appropriate attention from others, regardless of whether they are clearly expressed. One possible explanation is that description and emotional expression may be counterproductive if they refer to undifferentiated emotions or confused expressions. In this respect, the literature does not enable clearer conclusions. Contradictory results have been found on the repercussions of emotional expressiveness in psychological adjustment in women with cancer (Stanton et al, 2000; Stanton & Low, 2012; Zacharie & O'Toole, 2015), so the effect of emotional expression on well-being may be very dependent on context, especially the quality of the relationship it takes place in.

In coping styles, direct instrumental strategies demonstrated predictive power for both positive and negative affect. It seems to be well established in the literature that avoidance strategies are good predictors of psychological distress (Dempster et al., 2015), and that direct action coping strategies focused on problem solving lead to emotional benefits and better adaptation to medical situations (Stanton et al, 2000; Stanton & Low, 2012). It has been found that in breast cancer, which represents the majority of cases in our sample, stress avoidance strategies are prejudicial depending on other variables, such as the stage of the illness or whether it is being treated (Asuzu & Elumelu, 2013; Costanzo, Lutgendorf, Rothrock, & Anderson, 2006; Kraemer et al., 2011; Kvillemo & Bränström, 2014; Moskowitz, Hult, Bussolari, & Acree, 2009). Furthermore, as already mentioned, the results of the avoidance scale should be interpreted with caution due to their low internal consistency in our sample. The moderate correlations and their absence from the regression equations could be due to failure of the instrument. We assume that the special situation which the participants in the study were in makes questions related to avoidance be interpreted in a non-uniform way. They may be answering different things when asked about their preference for "being alone" or "amusing

themselves". We have not found any references in the literature to low internal consistency on this scale, so we cannot propose any other explanation.

Unexpectedly, seeking social support did not show any influence on emotional well-being. In the literature, strategies directed at seeking contact, consolation or company have been shown to have less important influence in quality of life or mood than other types of coping, and even contradictory results (Costanzo et al., 2006; Lutgendorf et al., 2002). It is worthwhile continuing to study this matter in qualitative studies, for example, to distinguish between the search for social support and the decision by those affected to restrict the circle of persons whom they tell about health problems, which would in turn be strongly conditioned by different cultural customs. People decide who to tell about their problem at the moment of diagnosis, and it may be then when the search for social support acquires an importance that could become most visible in the questionnaires. If this is so, the relationship between seeking support and affect would be different depending on where the patient is at in the process. Our participants were undergoing radiotherapy after having had surgery and/or chemotherapy. At that time, readjustments due to the impact of the diagnosis may have remained behind, and they may have been at an impasse waiting for the treatment to take effect. In any case, it should be kept in mind that not actively seeking social support as a coping strategy should not be understood as social withdrawal, since it is possible they consider the support they already have sufficient. Furthermore, not actively seeking comfort, consolation or advice does not mean having it helps them feel better.

Behavior related to attachment also demonstrated significant influence on psychological well-being. The EPERIC subscale on *Fear of rejection* showed strong correlations with the three dependent variables, and also predicted negative affect. The secure attachment style (usually measured in terms of low scores on the avoidance and anxiety dimensions of attachment, which would correspond to low scores on *Fear of rejection and abandonment*), has been related to a better emotional state

during illness (Ávila et al., 2015; Fagundes et al., 2014; Lo et al., 2010). Strong fear of rejection assumes hyper-activation of the mechanisms detecting such a threat, and this pattern is probably generalized into a more sensitive perception of other types of threat as well, such as the illness. Secure attachment is regarded as a protective factor mitigating the effect of stress in cancer and preventing trauma (Cicero et al., 2009; Schmidt, Blank, Bellizzi, & Park, 2012). Thus evaluating the fear of rejection can detect persons at greater risk of emotional distress when they are going through cancer treatment. The clear absence of correlations on the subscales *Desire for closeness* and *Preference for Independence* has an important clinical implication, since it enables less relevant variables to be neglected when helping individuals who are in this situation (Alonso et al., 2016).

Concerning the general results, it should be born in mind that the variables studied are not independent of each other, as might be deduced from the table of correlations. In fact, attachment is frequently considered a mediator of coping styles (Nicholls, Hulbert-Williams, & Bramwell 2014; Schmidt, Nachtigall, Wuethrich-Martone, & Strauss, 2002). A strong fear of rejection involves expecting critical attachment figures to reject or not understand complaints or requests for help. This would mean a higher probability of developing avoidance coping strategies and emotional suppression, and probably also, although as a slower construction through the type of care that their attachment figures have provided throughout life, less ability to differentiate their emotions and express them effectively. In our sample, important correlations were also observed among alexithymia indicators and less probability of instrumental coping or of seeking social support. Future research in this field should evaluate the mutual influence of these variables to find the parts most susceptible to therapeutic change and where it is easier for intervention to have more effective repercussions than others.

The main limitation of our work is that as a cross-study, it provides no information on the characteristics of the sample prior to diagnosis. This makes it hard to know to what point the

information provided, especially concerning attachment preferences, is conditioned by the traumatic experience of the illness itself, which may have put to the test or brought to light dysfunctional relationships that might otherwise have gone unnoticed. Both attachment and alexithymia are considered relatively stable traits (Ludwig et al., 2014; Luminet et al, 2007), but they may vary depending on life events.

Another weakness is related to the data on coping strategies, which was limited to the illness, so we have no data on coping with other life events. The number of instruments given the participants made it preferable to omit some information and not overburden them, risking their refusal to participate.

Furthermore, due to the relatively small size of our sample, we did not differentiate subsamples, by diagnosis, severity of the medical situation or surgery undergone prior to radiotherapy. This would have enabled us to refine our conclusions on the different types of attention required depending on other variables which are doubtlessly intervening in the adjustment process.

In conclusion, our study supports what has generally been noted concerning coping styles, which is that in the face of illness, problem-solving strategies are beneficial to psychological well-being. Therefore, for clinical intervention, inclusion of promotion of active instrumental coping strategies as one of the therapeutic goals is recommendable. Similarly, intervention promoting interpretation of emotional perceptions themselves more than the ability to express them would be advisable. Verbal expression of emotions is relatively important and should not be lost from sight, but the benefit of describing emotions is probably subject to the ability to differentiate them.

The absence of significant results concerning close relationships in seeking social support agrees with the low correlations of difficulty in verbal expression of emotions. At the same time, the *Desire for closeness* and *Preference for independence* attachment scales do not correlate with any of the dependent variables either. In other words, within the general concepts of attachment, coping and alexithymia we are dealing with, none of the

components most sensitive to close relationships were predictive of emotional well-being, except for *Fear of rejection and abandonment*. Cancer is a life threatening event that puts to the test the functionality of close relationships, their adaptive value for responding to fears and need for care, and continuation of daily tasks affected by the treatments. However, this functionality seems to be represented by the fear of rejection and abandonment, more than other forms of contact with others. It also seems that secure attachment involves more well-being during cancer (Nichols et al., 2014), but what parts of attachment in particular are involved still remain to be differentiated. We believe that fear of rejection and abandonment must be an essential part of psycho-oncological treatments.

- **Conflict of interest**

The authors declare no conflict of interest.

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