TRAIT EMOTIONAL INTELLIGENCE IN WOMEN WITH BREAST CANCER: INVESTIGATING PATHWAYS TOWARDS DEPRESSIVE SYMPTOMATOLOGY THROUGH BLAME

Nadia Barberis, Janine Gullo, & Marco Cannavò
Department or Health Science, Magna Graecia University, Catanzaro (Italy)

Abstract

Introduction: Breast cancer (BC) is a life-threatening disease that severely affects many spheres of women's lives. Trait Emotional Intelligence (TEI) has been shown to influence one's adaptation to a challenging clinical condition. In addition, previous studies have demonstrated how attributing responsibility for negative events or emotions to external or internal sources may determine varying levels of adaptation to one's disease. Hence, it seems crucial to explore these aspects concurrently in the context of BC. This study sought to examine whether the association between depressive symptoms and TEI was mediated by (self and other) blame. *Methods*: Questionnaires were administered to 290 individuals suffering from BC to assess the variables of interest and a path analysis was performed to put the hypotheses into test. Analysis of the covariance matrices was conducted using R and solutions were generated based on maximum-likelihood estimation. Path analysis was conducted to test a model with TEI as the predictor variable, Self-blame and Other-blame as mediators, and Depression as an outcome. Estimation of the saturated model was carried out, and therefore no fit indices were reported. *Results*: Results highlighted that TEI was negatively related to Self-blame (β = -.35; p<.001), Other-blame (β = -.32; p<.001), and Depression (β = -.55; p<.001). Moreover, depression was positively related to both Self-blame (β = .11; p<.05) and Other-blame (β = .14; p<.05). In addition, both Self-blame (β = -.04; p<.05) and Other-blame (β = -.05; p<.05) showed a mediating role in the relationship between TEI and depression. Conclusion: Results showed that proper clarity of emotion enables individuals to adaptively regulate their emotions in response to specific life events or situations. More specifically, a greater ability to think and process emotions is associated with a lower tendency of an individual to blame themselves for negative events or circumstances and to not attribute responsibility for their condition to external sources or other people. This, in turn, may allow for better interpersonal relationships and a lower risk of interpersonal distress. Clinicians may want to implement interventions aimed at fostering TEI in their BC patients to improve their psychosocial adjustment.

Keywords: Breast cancer, trait emotional intelligence, blame, depression.

1. Introduction

Breast cancer (BC) ranks among the most prevalent cancers in women, with around 2.3 million new cases reported (Sung et al., 2021). Recent epidemiological data reveals that BC constitutes approximately 24.5% of all cancer diagnoses, and projections indicate a global increase to 4.4 million cases by 2070 (Soerjomataram & Bray, 2021). Individuals diagnosed with breast cancer (BC) commonly confront physical changes, functional limitations, undesirable side effects, diminished quality of life, and strained interpersonal relationships (Caruso et al., 2017; Hodgkinson et al., 2006). As a result, it is unsurprising that they may concurrently grapple with persistent feelings of sadness and hopelessness, indicative of depressive symptomatology. A recent meta-analysis conducted by Pilevarzadeh et al. (2019) and encompassing 72 diverse studies emphasized the occurrence of depressive symptoms among this clinical group, uncovering a worldwide prevalence rate of 32.2%. Abundant research emphasizes that effectively handling emotions aids individuals in adapting to challenging conditions like cancer (Baziliansky et al., 2021). Within emotion-related concepts, the notion of trait emotional intelligence (trait EI) has proven valuable, providing a comprehensive framework for understanding how individuals generally respond to emotionally charged situations (Sarrionandia & Mikolajczak, 2019). Specifically, trait EI is conceived as a collection of emotion-related tendencies that capture how individuals perceive themselves in terms of processing emotions, both within themselves and others (Petrides et al., 2018).

Through the analysis of 106 diverse cross-sectional studies, Sarrionandia and Mikolajczak (2019) synthesized the existing evidence regarding possible associations between trait EI and behavioral as well as biological elements. The results suggested that trait EI significantly influences the prediction of both subjective perceptions and objective health indicators, highlighting its importance in the context of an individual's overall well-being. One of the basic premises of trait EI is that influences one's ability to interpret affect-laden pieces of information (Petrides et al., 2018) and may therefore shape individuals' tendency to attribute responsibility, fault, or accountability for adverse events or situations to internal or external sources. Cognitive strategies like self-blame and other blame have been consistently observed in oncological populations (Else-Quest et al., 2009). It is possible to infer that greater clarity of emotions given by well-developed trait EI may enable individuals to counteract feelings of distrust and helplessness and thus offset depressive states. In line with these premises, the present study aimed to examine whether the association between depressive symptoms and TEI was mediated by (self and other) blame. More specifically, it was hypothesized that trait ei was negatively linked to self-blame, other-blame, and depression. It was also hypothesized that self-blame and other-blame was positively linked to depressive states.

2. Method

2.1. Participants

The sample consisted of 290 women with breast cancer aged between 25 and 83 years old (M=52,59; SD=8,34).

2.2. Measures

2.2.1. Trait emotional intelligence. The Trait Emotional Intelligence Questionnaire- Short Form (Petrides, 2009) is a 30-item self-report form to assess Trait EI. Respondents are asked to rate, on a 7-point scale, their level of agreement with each item (e.g.: "I usually find it difficult to regulate my emotions"). Higher scores indicate higher trait EI. In the present study, internal consistency was good (Table 1).

2.2.2. (Self and other) blame.

2.2.3. Depression. The Depression Anxiety Stress Scales-21 in its Italian validation (DASS21; Bottesi et al., 2015) is a 21-item self-report questionnaire used to assess components of distress (depression, anxiety, and distress). For the current study, the Depression subscale was used (e.g.: I couldn't seem to experience any positive feeling at all). Respondents are asked to rate, on a 4-point scale, their degree of agreement with each item. Higer scores represent higher levels of pain intensity and interference. In the present study, internal consistency was good (Table 1).

2.3. Procedures

For this study, women were recruited from social networks of those affected by BC. The inclusion criteria were a breast cancer diagnosis of at least 1 year, no history of recurrence, and no previous instances of any other type of cancer. They completed an online survey, implying consent upon submission. All participants affirmed voluntary, anonymous participation, spending 35 to 45 minutes on the mandatory questionnaire to prevent data gaps. To broaden the sample, oncologists collaborated by sharing the survey link with their patients. No monetary compensation was provided to participants or collaborating doctors. The study adhered to ethical guidelines outlined by the Italian Association of Psychology (AIP) and the 1964 Declaration of Helsinki. Materials and procedures received prior approval from the institution's Ethical Committee for Scientific Research.

2.4. Data analysis

Correlations and descriptive analyses were carried out for all the observed variables. A path analysis was used to examine the relationship between trait EI, blame, and depressive symptoms. Analysis of the covariance matrices was conducted using R and solutions were generated based on maximum-likelihood estimation. Path analysis was conducted to test a model with TEI as the predictor variable, Self-blame and Other-blame as mediators, and Depression as an outcome. Estimation of the saturated model was carried out, and therefore no fit indices were reported.

3. Results

3.1. Descriptive results and correlations

The Means, Standard Deviations, Skewness, and Kurtosis of scores of each variable are shown in Table 1. Furthermore, Table 1 illustrates the correlations among the observed variables (Table 2).

*Table 1. Descriptive analyses and correlations. Note. * p < .01.*

|	α	M	SD	Skew	Kurt	1	2	3
1.Trait EI	.88	4.98	.77	-.31	-.38			
2. Self-blame	.74	1.77	.77	1.27	1.78	-.35*		
3. Other-blame	.77	1.67	.76	1.52	2.38	-.32*	.53*	
4. Depression	.91	.98	.79	.74	-.36	-.60*	.37*	37*

3.2. Mediation model

Results (Table 2) highlighted that TEI was negatively related to Self-blame (β = -.35; p<.001), Other-blame (β = -.32; p<.001), and Depression (β = -.55; p<.001). Moreover, depression was positively related to both Self-blame (β = .11; p<.05) and Other-blame (β = .14; p<.05). In addition, both Self-blame (β = -.04; p<.05) and Other-blame (β = -.05; p<.05) showed a mediating role in the relationship between TEI and depression (Figure 1).

Table 2. Path estimates, SEs and 95% CIs.

	β	SE	Lower bound (BC) 95% CI	Upper bound (BC) 95% CI
Trait EI → Self-blame	-.35	.06	-.47	-.23
Trait EI → Other-blame	-.32	.06	-.05	-.21
Trait EI → Depression	-.51	.05	-.62	-.43
Self-blame → Depression	.11	.06	.00	.22
Other-blame → Depression	.14	.07	.28	.15
Trait EI → Self-blame → Depression	-.04	.02	-.08	-.00
Trait EI → Other-blame → Depression	-.05	.02	-.10	-.01

Note: SE = standards errors; BC 95% CI = Bias Corrected-Confidence Interval

Figure 1. Structural model between the observed variables. Coefficients shown are standardized path coefficients.
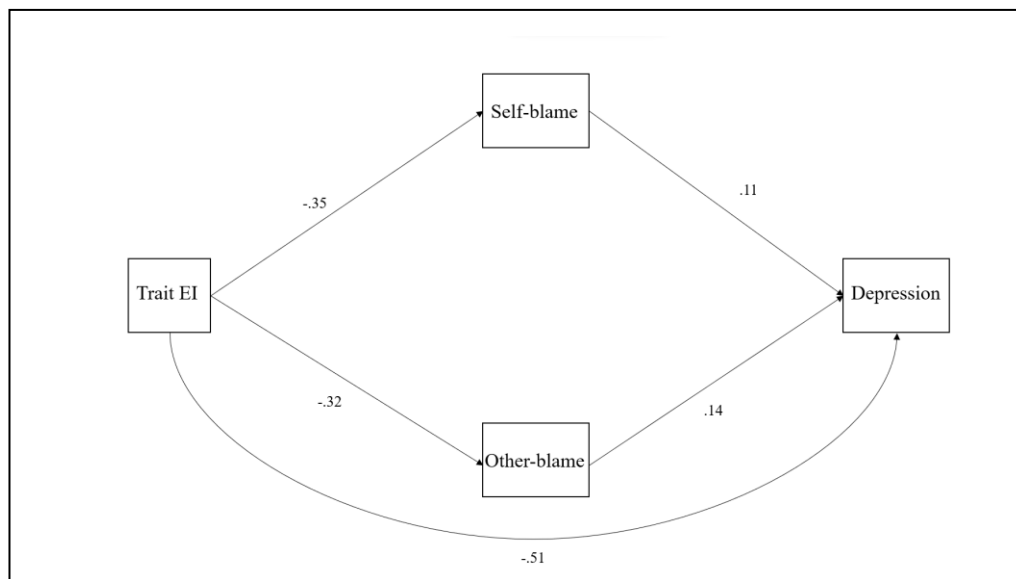
4. Discussion

Fully in line with expectations, current results showed that the underdeveloped trait EI was linked to more depressive symptomatology, both directly and indirectly, with self-blame and other blame as mediators. Trait EI, in fact, may help individuals with breast cancer to better deal with their feelings and emotions, like embarrassment or anger, and consequently to better manage any concerns related to their disease, making tendency of assigning responsibility, fault, or culpability to oneself for negative events less likely to occur, resulting in less depressive states. In addition, having lower facets of trait EI may increase the prevalence of negative affectivity, which may in turn lower one's e motional clarity, thus fostering maladaptive cognitive processes attributing the cause of a situation to personal fault or external factors (Else-Quest et al., 2009). Moreover, the results highlight a negative association between depressive symptomatology and trait EI. Indeed, underdeveloped trait EI is likely to contribute to heightened psychological and relational problems (Petrides et al., 2016), consequently leading to increased feelings of depression and loneliness (Mavroveli et al., 2007). Overall, this results are consonant with the results of Smith et al. (2012) that emphasized that low trait EI predicts increased worry during the early stages of the cancer diagnostic process and with Chen et al. (2021) whose article emphasized that, among women with BC, low trait EI was associated with reduced quality of life and increased fear of cancer recurrence or progression. It is important to note that this study adopts a cross-sectional approach, emphasizing the need for future longitudinal studies to unravel the relationship between the observed variables. Moreover, the use of self-reports to assess depressive symptoms may increase a measurement bias. Despite this limitation, the findings carry significant clinical implications. Firstly, individuals with breast cancer may experience distress symptoms, prompting clinicians to thoroughly screen for internalizing issues to enhance their interventions. Secondly, the results imply that enhancing Trait EI could effectively reduce depressive states. Therefore, intervention programs for those with breast cancer should incorporate modules aimed at improving Trait EI to enhance clinical effectiveness. To conclude, this study contributes to a better comprehension of this challenging condition.

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