



Research paper

The Mediating Role of Resilience and Self-Efficacy in Relationship between Cognitive Emotion Regulation Strategies and Psychological Distress in Women with Breast Cancer

Tamannaefar, Mohammad Reza ¹; Suleimanian, Zahra ²

1. Corresponding Author: Associate Professor, Department of Psychology, Faculty of Humanities, University of Kashan, Kashan, Iran. tamannai@kashanu.ac.ir
2. M.A in Psychology, Department of Psychology, Faculty of Humanities, University of Kashan, Kashan, Iran. zahra.sln91@gmail.com

Abstract

The purpose of the present study was to investigate mediating role of resilience and self-efficacy in relationship between cognitive emotion regulation strategies and psychological distress in women with breast cancer. The research method was descriptive-correlation. The statistical population was all women with breast cancer in oncology department of Imam Khomeini and Imam Hossein Hospitals in Tehran, Iran in year 2023. The sampling method was convenience and the sample size was 250 people. The main findings indicated that cognitive emotion regulation had directly significant relation with psychological distress. Cognitive emotion regulation indirectly had a significant relationship through the mediating role of resilience and self-efficacy with psychological distress. It seems that cognitive emotion regulation directly and indirectly by mediating the role of resilience and self-efficacy predicted psychological distress. This study indicated the necessity of increasing cognitive emotion regulation, resilience and self-efficacy for psychological distress.

Keywords: Breast cancer, cognitive emotion regulation, psychological distress, resilience, self-efficacy.

Introduction

Breast cancer is one of the most common diseases among women in most countries of the world and every year a large number of women are diagnosed with breast cancer. So that it can be said that as a result of cancer diagnosis and mainly multimodal and stressful treatment, psychological distress is a common symptom in women with breast cancer (Hass, et al., 2023). Research has also shown that psychological distress is associated with symptom worsening during active treatment and reduced quality of life in women with early-stage breast cancer (Alanazi, et al., 2023). The impact of cancer in terms of reducing psychological well-being and quality of life is well documented in the literature for different types of cancer and for different stages of the disease course, and in particular, women and younger people seem to be more vulnerable than their male counterparts (Naik, et al., 2020). One of the factors that can affect psychological distress is cognitive emotion regulation strategies, so researches have shown that the use of maladaptive cognitive regulation strategies in facing stressful life events increases psychological distress is associated. Therefore, according to the stated cases, the current research seeks to test the general hypothesis that resilience and self-efficacy play mediating roles in the relationship between cognitive emotion regulation strategies and psychological distress.

Method

The research method was descriptive-correlation. The statistical population was all women with breast cancer in oncology department of Imam Khomeini and Imam Hossein Hospitals in Tehran, Iran in year 2023. A sample of 250 women were selected, by convenience method. The age range was 35-55 years old; with mean age 49.45 years and standard deviation 11.29. Diagnosis of breast cancer, being in the treatment stage of radiotherapy, having minimal literacy, full consent to participate in the research and the right to withdraw from the research, and not having physical and psychological disorders, were the criteria for entering the research. Failure to fully complete the questionnaires, not having the necessary cooperation to participate in the research was the criteria for exiting the research. Statistical analysis of data was performed using SPSS version 28 and AMOS software.

Tools

Depression Anxiety Stress Scale (DASS): This 21-item questionnaire utilizes a 4-point Likert scale. This scale measures three dimensions namely depression, anxiety and stress, 7 items each. The test-retest reliability of the scale was with coefficient method were 0.79, .0.81 and 0.81 (Lovibond, 1995). In the present study, Cronbach's alpha coefficient of depression was 0.71, stress was 0.80, anxiety was 0.76 and all questions were 0.93.

Cognitive Emotion Regulation Questionnaire (CERQ): This 36 items scale with 5- degree Likert type response, had two subscales of maladaptive strategies and adaptive strategies. In the original version, Cronbach's alpha coefficient was reported as 0.92 (Garnefski and Kraaij, 2007). In the present study, Cronbach's alpha coefficient for total maladaptive strategies was 0.90, total adaptive strategies 0.88.

Connor-Davidson Resilience Scale (CD-RISC): This 25 items scale with 5- degree Likert type response, had five subscales of personal competence, tolerance of negative effects, positive acceptance of change, control and spirituality (Conner and Davidson, 2003). These researches reported Cronbach's alpha subscales ranged from 0.72 to 0.75 and Cronbach's alpha total was 0.82. In the present study, Cronbach's alpha coefficient was 0.90.

General of Self-Efficacy Scale (GSES): This 17 items scale with 4- degree Likert type response, had three subscales of initiate behavior, willingness to expand effort in completing the behavior and persistence in the face of adversity. In the research of Sherer, et al. (1982) Cronbach's alpha total was 0.86. In the present study, Cronbach's alpha coefficient was 0.92.

Results

As Table 1 shows, the standard and direct coefficient of maladaptive emotion regulation ($\beta = 0.52$, sig = 0.001), adaptive emotion regulation ($\beta = -0.66$, sig = 0.001), resilience ($\beta = -0.30$, sig = -0.001) and self-efficacy ($\beta = -0.22$, sig = 0.002) have a direct and significant effect on psychological distress. Also, results of the bootstrap method for examining mediating or indirect paths are presented and results showed resilience and self-efficacy plays a mediating role in the relationship between cognitive regulation of emotion and psychological distress.

Table1. The standard direct coefficients, and indirect paths (bootstrap results)

Predictor variable	Criterion variable	Beta	SE	CR	p
Maladaptive emotion regulation	psychological distress	0.52	0.14	6.40	0.001
Adaptive emotion regulation	psychological distress	-0.66	0.09	-5.18	0.001
Resilience	psychological distress	-0.30	0.27	-3.92	0.001
Self-efficacy	psychological distress	-0.22	0.07	-2.74	0.002

Indirect paths (bounds bootstrap)				
Indirect paths	bounds bootstrap		Sig.	
	Lower	Upper		
Maladaptive emotion regulation - resilience - psychological distress	-.10	-.27	.002	
Adaptive emotion regulation - resilience - psychological distress	.16	.41	.001	
Maladaptive emotion regulation- self-efficacy- psychological distress	-.21	-.50	.001	
Adaptive emotion regulation - self-efficacy- psychological distress	.26	.31	.001	

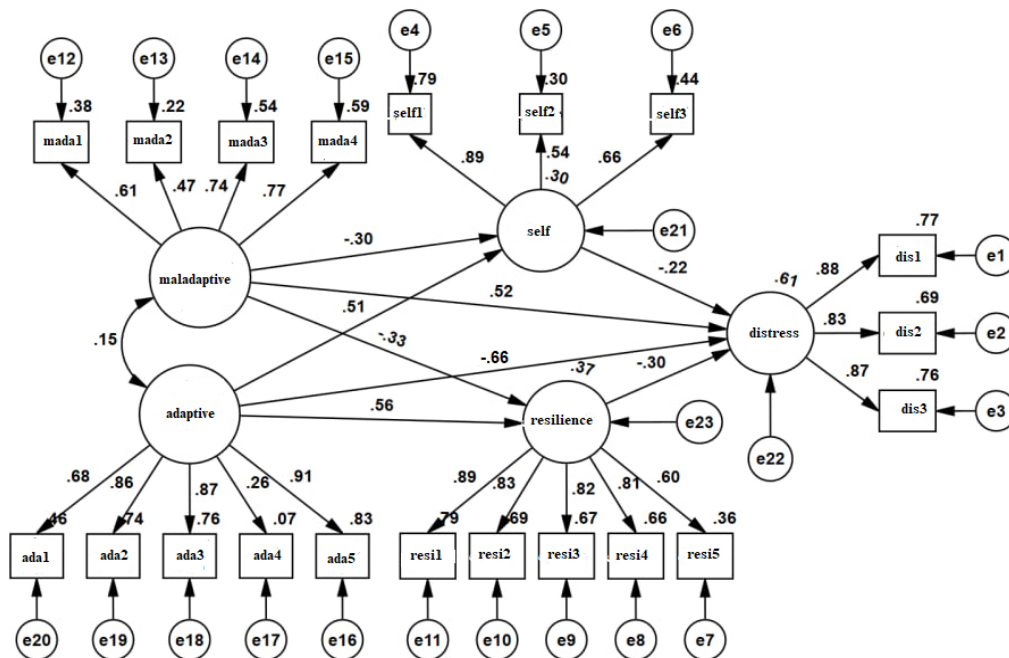


Figure 1: The Obtained model

Discussion and Conclusion

In explaining the obtained results, it can be said that the maladaptive cognitive regulation of with a decrease in resilience causes women with breast cancer to show less ability against the problems caused by cancer, and this causes them to experience more psychological distress. Also, women with breast cancer endure because they use positive emotions and intelligently to

achieve superior coping results. When these women can withstand the negative emotions resulting from breast cancer, this resilience helps them to cope better with negative emotions and experience less psychological distress. In addition, when a patient with breast cancer slows his recovery process and does not hope for his recovery, this low self-efficacy causes him to have low self-management to fight the cancer disease and easily experience negative emotions, and these emotions cause a higher level of psychological distress in them. Also, when a woman with cancer has a high level of self-efficacy helps cope better with the challenges of the disease and experience less psychological distress. The limitations were the selection of participants from a geographical area and the use of available sampling. Based on this, psychologists who work in the field of psychological distress and psychological problems of women with breast cancer in counseling centers, considering educational workshops such as interventions based on emotion regulation, resilience and self-efficacy on women who are distressed.

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Conflict of Interests

Authors found no conflict of interests.



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