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عنوان

بررسی تأثیر مشاوره گروهی کاهش استرس مبتنی بر ذهن آگاهی بر واکنش های روان شناختی و برخی فاکتورهای التهابی زنان مبتلا به سرطان پستان مراجعه کننده به مطب ها و مراکز درمانی دانشگاه علوم

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## چکیده

مقدمه و اهداف: سرطان پستان میان زنان شایع ترین و تاثیرگذارترین سرطان از نظر عاطفی و روانی است که باعث کاهش کیفیت زندگی، عدم تمایل به ادامه درمان و پیشرفت روند بیماری می شود؛ لذا پژوهشی با هدف تعیین تاثیر ذهن آگاهی بر واکنش‌های روان شناختی از قبیل استرس، اضطراب، افسردگی و تست های آزمایشگاهی شامل کورتیزول و CRP در زنان مبتلا به سرطان پستان انجام شد.

روش‌ها: این تحقیق از نوع کارآزمایی بالینی است که شرکت کنندگان با روش نمونه گیری در دسترس انتخاب و با استفاده از جدول اعداد تصادفی در دو گروه کنترل (۲۲ نفر) و مداخله (۲۲ نفر) قرار گرفتند. گروه مداخله به مدت هشت هفته و هر هفته یک جلسه تحت مشاوره گروهی کاهش استرس مبتنی بر ذهن آگاهی قرار گرفتند. قبل و بلافاصله بعد از مداخله پرسشنامه های افسردگی بک-II، اضطراب بک و مقیاس استرس ادراک شده توسط شرکت کنندگان تکمیل شده و نمونه خون جهت آزمایشات کورتیزول و پروتئین سی از ایشان گرفته شد. داده ها توسط نرم افزار SPSS نسخه ۱۸ مورد تجزیه و تحلیل قرار گرفتند.

یافته‌ها: در زمینه واکنش های روان شناختی، میزان استرس ادراک شده و افسردگی اختلاف امتیازات بین دو گروه مداخله و کنترل، قبل و بعد از مداخله اختلاف معنی داری مشاهده نشد ( $P > 0,05$ ). در حالیکه این اختلاف امتیاز در مورد میزان اضطراب بین دو گروه، قبل و بعد از مداخله، معنادار بود ( $P < 0,01$ ). ضمن اینکه از نظر CRP و کورتیزول نیز اختلاف قابل توجهی بین دو گروه، قبل و بعد از مداخله یافت نشد ( $P = 0,18$ ).

بحث و نتیجه گیری: با توجه به اینکه مداخله ذهن آگاهی مبتنی بر کاهش استرس از بین واکنش های روان شناختی تنها بر اضطراب زنان مبتلا به سرطان پستان موثر بوده است و بر کورتیزول و CRP نیز تاثیری نداشته است. به نظر می رسد با توجه به مشکلات متعدد جسمی و روانی که این بیماران تحمل می کنند شاید لازم باشد در خصوص تغییر در نوع و کیفیت مداخلات روان شناختی همراه با حمایت های همه جانبه با توجه به نیازسنجی در این بیماران برنامه ریزی های لازم صورت گیرد.

منايع

1. Lozano R, Naghavi M, Foreman K, Lim S, Shibuya K, Aboyans V, et al. Global and regional mortality from 235 causes of death for 20 age groups in 1990 and 2010: a systematic analysis for the Global Burden of Disease Study 2010. *The lancet*. 2012;380(9859):2095-128.
2. Bray F, Ferlay J, Soerjomataram I, Siegel RL, Torre LA, A J. *Global Cancer Statistics 2018 2019* [
3. Parkin DM, Fernández LM. Use of statistics to assess the global burden of breast cancer. *The breast journal*. 2006;12(s1):S70-S80.
4. DeSantis CE, Bray F, Ferlay J, Lortet-Tieulent J, Anderson BO, Jemal A. International variation in female breast cancer incidence and mortality rates. *Cancer Epidemiology and Prevention Biomarkers*. 2015;24(10):1495-506.
5. Nahid Nafissi, Maryam Khayamzadeh, Zahra Zeinali, Davood Pazooki, Mostafa Hosseini, Akbari ME. Epidemiology and Histopathology of Breast Cancer in Iran versus Other Middle Eastern Countries. *Middle East Journal of Cancer*. 2018;9(3):8.
6. Greenlee H, Balneaves LG, Carlson LE, Cohen M, Deng G, Hershman D, et al. Clinical practice guidelines on the use of integrative therapies as supportive care in patients treated for breast cancer. *JNCI Monographs*. 2014;2014(50):346-58.
7. Hodgkinson K, Butow P, Hunt G, Wyse R, Hobbs K, Wain G. Life after cancer: couples' and partners' psychological adjustment and supportive care needs. *Supportive care in Cancer*. 2007;15(4):405-15.
8. Lengacher CA, Reich RR, Paterson CL, Ramesar S, Park JY, Alinat C, et al. Examination of broad symptom improvement resulting from mindfulness-based stress reduction in breast cancer survivors: A randomized controlled trial. *Journal of clinical oncology*. 2016;34(24):2827-34.
9. Wefel JS, Kesler SR, Noll KR, Schagen SB. Clinical characteristics, pathophysiology, and management of noncentral nervous system cancer-related cognitive impairment in adults. *CA: a cancer journal for clinicians*. 2015;65(2):123-38.
10. Farrell C. *Mental Disorders*: Abdo Publishing; 2010.
11. Soltani s, Reza , A aghamohamadian sherbaf HR, A Kareshki H. The role of type D personality and emotional intelligence with the mediation of perceived stress and coping strategies in quality of life for heart patients. *J University of Medical Sciences Kermanshah* 2013.
12. Alacacioglu A, Yavuzsen T, Dirioz M, Yilmaz U. Quality of life, anxiety and depression in Turkish breast cancer patients and in their husbands. *Medical Oncology*. 2009;26(4):415.
13. Maass SW, Roorda C, Berendsen AJ, Verhaak PF, de Bock GH. The prevalence of long-term symptoms of depression and anxiety after breast cancer treatment: A systematic review. *Maturitas*. 2015;82(1):100-8.
14. O'Connor M, Christensen S, Jensen AB, Møller S, Zachariae R. How traumatic is breast cancer? Post-traumatic stress symptoms (PTSS) and risk factors for severe PTSS at 3 and 15 months after surgery in a nationwide cohort of Danish women treated for primary breast cancer. *British Journal of Cancer*. 2011;104(3):419-26.
15. Mitchell AJ, Ferguson DW, Gill J, Paul J, Symonds P. Depression and anxiety in long-term cancer survivors compared with spouses and healthy controls: a systematic review and meta-analysis. *The lancet oncology*. 2013;14(8):721-32.
16. Yang H, Brand JS, Fang F, Chiesa F, Johansson AL, Hall P, et al. Time-dependent risk of depression, anxiety, and stress-related disorders in patients with invasive and in situ breast cancer. *International Journal of Cancer*. 2017;140(4):841-52.
17. Sima g, Ghorbani, Shakurimoghadam, Alizade. The study of depression and psychological disorder prevalence in breast cancer patients.
18. Kernan WD, Lepore SJ. Searching for and making meaning after breast cancer: Prevalence, patterns, and negative affect. *Social Science & Medicine*. 2009;68(6):1176-82.
19. Zainal NZ, Booth S, Huppert FA. The efficacy of mindfulness-based stress reduction on mental health of breast cancer patients: A meta-analysis. *Psycho-Oncology*. 2013;22(7):1457-65.
20. Howren MB, Lamkin DM, Suls J. Associations of depression with C-reactive protein, IL-1, and IL-6: a meta-analysis. *Psychosomatic medicine*. 2009;71(2):171-86.

21. McDade TW, Hawkey LC, Cacioppo JT. Psychosocial and behavioral predictors of inflammation in middle-aged and older adults: the Chicago health, aging, and social relations study. *Psychosomatic medicine*. 2006;68(3):376-81.
22. Villaseñor A, Flatt SW, Marinac C, Natarajan L, Pierce JP, Patterson RE. Postdiagnosis C-reactive protein and breast cancer survivorship: findings from the WHEL study. *Cancer Epidemiology and Prevention Biomarkers*. 2013.
23. Siemes C, Visser LE, Coebergh J-WW, Splinter TA, Witteman JC, Uitterlinden AG, et al. C-reactive protein levels, variation in the C-reactive protein gene, and cancer risk: the Rotterdam Study. *Journal of clinical oncology*. 2006;24(33):5216-22.
24. Basu S, Harris H, Larsson A, Vasson M-P, Wolk A. Is there any role for serum cathepsin S and CRP levels on prognostic information in breast cancer? The Swedish mammography cohort. Mary Ann Liebert, Inc. 140 Huguenot Street, 3rd Floor New Rochelle, NY 10801 USA; 2015.
25. Bower JE. Behavioral symptoms in patients with breast cancer and survivors. *Journal of Clinical Oncology*. 2008;26(5):768-77.
26. Finch CE. *The Biology of Human Longevity: Inflammation, Nutrition, and Aging in the Evolution of Lifespans*: Academic Press; 2010.
27. Il'yasova D, Colbert LH, Harris TB, Newman AB, Bauer DC, Satterfield S, et al. Circulating levels of inflammatory markers and cancer risk in the health aging and body composition cohort. *Cancer Epidemiology and Prevention Biomarkers*. 2005;14(10):2413-8.
28. Runowicz CD, Leach CR, Henry NL, Henry KS, Mackey HT, Cowens-Alvarado RL, et al. American cancer society/American society of clinical oncology breast cancer survivorship care guideline. *CA: a cancer journal for clinicians*. 2016;66(1):43-73.
29. Ng CG, Boks MP, Zainal NZ, de Wit NJ. The prevalence and pharmacotherapy of depression in cancer patients. *Journal of affective disorders*. 2011;131(1-3):1-7.
30. Praisman S. Mindfulness-based stress reduction: A literature review and clinician's guide. *Journal of the American Academy of Nurse Practitioners*. 2008;20(4):212-6.
31. Sauer S, Baer RA. Mindfulness and decentering as mechanisms of change in mindfulness-and acceptance-based interventions. *Assessing mindfulness and acceptance processes in clients: Illuminating the theory and practice of change*. 2010:25-50.
32. Kabat-Zinn J, Hanh TN. *Full catastrophe living: Using the wisdom of your body and mind to face stress, pain, and illness*: Delta; 2009.
33. Crane R, Brewer J, Feldman C, Kabat-Zinn J, Santorelli S, Williams J, et al. What defines mindfulness-based programs? The warp and the weft. *Psychological medicine*. 2017;47(6):990-9.
34. Dreyfus G. Is mindfulness present-centred and non-judgmental? A discussion of the cognitive dimensions of mindfulness. *Contemporary Buddhism*. 2011;12(1):41-54.
35. Minor HG, Carlson LE, Mackenzie MJ, Zernicke K, Jones L. Evaluation of a mindfulness-based stress reduction (MBSR) program for caregivers of children with chronic conditions. *Social work in health care*. 2006;43(1):91-109.
36. Kabat-Zinn J. Mindfulness. *Mindfulness*. 2015;6(6):1481-3.
37. Birnie K, Garland SN, Carlson LE. Psychological benefits for cancer patients and their partners participating in mindfulness-based stress reduction (MBSR). *Psycho-oncology*. 2010;19(9):1004-9.
38. Keye MD, Pidgeon AM. Investigation of the relationship between resilience, mindfulness, and academic self-efficacy. *Open Journal of Social Sciences*. 2013;1(06):1.
39. Shennan C, Payne S, Fenlon D. What is the evidence for the use of mindfulness-based interventions in cancer care? A review. *Psycho-Oncology*. 2011;20(7):681-97.
40. Campbell TS, Labelle LE, Bacon SL, Faris P, Carlson LE. Impact of mindfulness-based stress reduction (MBSR) on attention, rumination and resting blood pressure in women with cancer: a waitlist-controlled study. *Journal of behavioral medicine*. 2012;35(3):262-71.
41. Garland SN, Carlson LE, Antle MC, Samuels C, Campbell T. I-CAN SLEEP: Rationale and design of a non-inferiority RCT of Mindfulness-based Stress Reduction and Cognitive Behavioral Therapy for the treatment of Insomnia in CANcer survivors. *Contemporary clinical trials*. 2011;32(5):747-54.



42. H. N, E. H. The Efficacy of Mindfulness-based Cognitive Therapy (MBCT) on Emotion Regulation among Patients with Breast Cancer. *Iranian Quarterly Journal of Breast Disease*. 2017;10(2):11.
43. Jalali D, Abdolazimi M, Alaei Z, Solati K. Effectiveness of mindfulness-based stress reduction program on quality of life in cardiovascular disease patients. *IJC Heart & Vasculature*. 2019;23:5.
44. Kolahkaj B, Zargar F. Effect of Mindfulness-Based Stress Reduction on Anxiety, Depression and Stress in Women With Multiple Sclerosis. *Nurs Midwifery Stud*. 2015;4(4):11.
45. Anderson ND, Lau MA, Segal ZV, Bishop SR. Mindfulness-based stress reduction and attentional control. *Clinical psychology and psychotherapy*. 2007;14(6):449.
46. Cusens B, Duggan GB, Thorne K, Burch V. Evaluation of the breathworks mindfulness-based pain management programme: Effects on well-being and multiple measures of mindfulness. *Clinical psychology & psychotherapy*. 2010;17(1):63-78.
47. Matchim Y, Armer JM, Stewart BR, editors. Mindfulness-based stress reduction among breast cancer survivors: a literature review and discussion. *Oncol Nurs Forum*; 2011.
48. Earls FJ B-GJ, Raudenbush SW, Sampson RJ. Project on Human Development in Chicago Neighborhoods (PHDCN): Addendum (Primary Caregiver), Wave 3, 2000-2002. ICPSR13670-v1. Ann Arbor, MI: Inter-university Consortium for Political and Social Research [distributor]. 2007:03-2.
49. Kaplan HI, Sadock BJ. Synopsis of psychiatry: Behavioral sciences clinical psychiatry: Williams & Wilkins Co; 1988.
50. Habibzadeh A, Habibzadeh Z. Evaluation of Effective Factors and its Prevalence on Postpartum Depression Among Women in the City of Qom, Iran. *INTERNATIONAL JOURNAL OF WOMENS HEALTH AND REPRODUCTION SCIENCES*. 2016;4(1):23-8.
51. Yehuda R, Teicher MH, Trestman RL, Levengood RA, Siever LJ. Cortisol regulation in posttraumatic stress disorder and major depression: A chronobiological analysis. *Biological Psychiatry*. 1996;40(2):79-88.
52. Osawa H, Tabara Y, Kawamoto R, Ohashi J, Ochi M, Onuma H, et al. Plasma resistin, associated with single nucleotide polymorphism- 420, is correlated with insulin resistance, lower HDL cholesterol, and high-sensitivity C-reactive protein in the Japanese general population. *Diabetes Care*. 2007;30(6):1501-6.
53. Fiksdal A, Hanlin L, Kuras Y, Gianferante D, Chen X, Thoma MV, et al. Associations between symptoms of depression and anxiety and cortisol responses to and recovery from acute stress. *Psychoneuroendocrinology*. 2019;102:44-52.
54. Loda M, Mucci LA, Mittelstadt ML, Van Hemelrijck M, Cotter MB. *Pathology and Epidemiology of Cancer*: Springer International Publishing; 2016.
55. . Nejadhamdi N MA. The relationship between mindfulness, coping strategies and perceived stress and quality of life of cancer patients. *Journal of Modern psychological research*.2014;9(35):71-88. [Persian].
56. Fisher R, Pusztai L, Swanton C. Cancer heterogeneity: implications for targeted therapeutics. *British journal of cancer*. 2013;108(3):479.
57. Devi PU. Basics of carcinogenesis. *Health Adm*. 2004;17(1):16-24.
58. Siddiqui IA, Sanna V, Ahmad N, Sechi M, Mukhtar H. Resveratrol nanoformulation for cancer prevention and therapy. *Annals of the New York Academy of Sciences*. 2015;1348(1):20-31.
59. Allred DC. Ductal carcinoma in situ: terminology, classification, and natural history. *Journal of the National Cancer Institute Monographs*. 2010;2010(41):134-8.
60. Burgess C, Potts H, Hamed H, Bish A, Hunter M, Richards M, et al. Why do older women delay presentation with breast cancer symptoms? *Psycho-Oncology*. 2006;15(11):962-8.
61. Rosen PP. *Rosen's Breast Pathology*: Lippincott Williams & Wilkins; 2001.
62. Gnerlich JL, Deshpande AD, Jeffe DB, Seelam S, Kimbuende E, Margenthaler JA. Poorer survival outcomes for male breast cancer compared with female breast cancer may be attributable to in-stage migration. *Annals of surgical oncology*. 2011;18(7):1837-44.
63. Stewart B, Wild CP. *World cancer report 2014*. Health. 2017.

64. Oeffinger KC, Fontham ET, Etzioni R, Herzig A, Michaelson JS, Shih Y-CT, et al. Breast cancer screening for women at average risk: 2015 guideline update from the American Cancer Society. *Jama*. 2015;314(15):1599-614.
65. Kamińska M, Ciszewski T, Łopacka-Szatan K, Miotła P, Starostawska E. Breast cancer risk factors. *Przegląd menopauzalny= Menopause review*. 2015;14(3):196.
66. Schoemaker MJ, Jones ME, Wright LB, Griffin J, McFadden E, Ashworth A, et al. Psychological stress, adverse life events and breast cancer incidence: a cohort investigation in 106,000 women in the United Kingdom. *Breast Cancer Research*. 2016;18(1):72.
67. Goldhirsch A, Wood WC, Coates AS, Gelber RD, Thürlimann B, Senn HJ. Strategies for subtypes—dealing with the diversity of breast cancer: highlights of the St Gallen International Expert Consensus on the Primary Therapy of Early Breast Cancer 2011. *Annals of Oncology*. 2011;22(8):1736-47.
68. Ju H-B, Kang E-C, Jeon D-W, Kim T-H, Moon J-J, Kim S-J, et al. Associations Among Plasma Stress Markers and Symptoms of Anxiety and Depression in Patients with Breast Cancer Following Surgery. *Psychiatry Investigation*. 2017.
69. Burgess C, Cornelius V, Love S, Graham J, Richards M, Ramirez A. Depression and anxiety in women with early breast cancer: five year observational cohort study. *Bmj*. 2005;330(7493):702.
70. Moreira H, Canavarro MC. A longitudinal study about the body image and psychosocial adjustment of breast cancer patients during the course of the disease. *European journal of oncology nursing*. 2010;14(4):263-70.
71. Semple CJ, McCance T. Parents' experience of cancer who have young children: a literature review. *Cancer nursing*. 2010;33(2):110-8.
72. Bužgová R, Jarošová D, Hajnová E. Assessing anxiety and depression with respect to the quality of life in cancer inpatients receiving palliative care. *European Journal of Oncology Nursing*. 2015;19(6):667-72.
73. Mehrabani F, Barati F, Ramezanzade Tabriz E, Bakaeian M, Gholami Chaboki B. unpleasant emotion (stress, anxiety, depression) and relationship with parental bonding and disease and demographic characteristics in patient with breast cancer. *Research Letter-Journal*. 2016;9(3):42-52.
74. Habibzadeh A, Habibzadeh Z. Evaluation of Effective Factors and its Prevalence on Postpartum Depression Among Women in the City of Qom, Iran. 2016.
75. Giese-Davis J, Collie K, Rancourt KM, Neri E, Kraemer HC, Spiegel D. Decrease in depression symptoms is associated with longer survival in patients with metastatic breast cancer: a secondary analysis. *Journal of clinical oncology*. 2010;29(4):413-20.
76. Kang YS, Choi SY, Ryu E. The effectiveness of a stress coping program based on mindfulness meditation on the stress, anxiety, and depression experienced by nursing students in Korea. *Nurse education today*. 2009;29(5):538-43.
77. Taylor C, Lillis P, LeMone P, and ML. *Study Guide for Fundamentals of Nursing. Philadelphia: The Art and Science of Nursing Care*; 2010.
78. Fink G. Stress: Definition and history. *Stress Sci*. 2010:3-9.
79. Fink G. Stress, Definitions, Mechanisms, and Effects Outlined. 2016. p. 3-11.
80. Mangelsdorf J, Eid M. What makes a thriver? Unifying the concepts of posttraumatic and postecstatic growth. *Frontiers in psychology*. 2015;6:813.
81. Sanjari M, Shirazi F, Heidari S. NURSING SUPPORT FOR PARENTS OF HOSPITALIZED CHILDREN. *Comprehensive Pediatric Nursing*. 2009;32:120–30.
82. Schubert C, Hong S, Natarajan L, Mills PJ, Dimsdale JE. The association between fatigue and inflammatory marker levels in cancer patients: a quantitative review. *Brain, behavior, and immunity*. 2007;21(4):413-27.
83. Noble JM, Manly JJ, Schupf N, Tang MX, Mayeux R, Luchsinger JA. Association of C-reactive protein with cognitive impairment. *Archives of neurology*. 2010;67(1):87-92.
84. Hodge DR, Hurt EM, Farrar WL. The role of IL-6 and STAT3 in inflammation and cancer. *European journal of cancer*. 2005;41(16):2502-12.

85. Chida Y, Steptoe A. Cortisol awakening response and psychosocial factors: a systematic review and meta-analysis. *Biological psychology*. 2009;80(3):265-78.
86. Emdadi S, Mossafa MJ. *The Power of No Thought: A Direct Approach to Self-Discovery: Rumi Rapture Series*; 2013.
87. Tolle E. *The Power of Now: A Guide to Spiritual Enlightenment*: Namaste Pub.; 2004.
88. Young LA. Mindfulness meditation: a primer for rheumatologists. *Rheumatic Disease Clinics*. 2011;37(1):63-75.
89. Spijkerman M, Pots WTM, Bohlmeijer ET. Effectiveness of online mindfulness-based interventions in improving mental health: A review and meta-analysis of randomised controlled trials. *Clinical psychology review*. 2016;45:102-14.
90. Matchim Y, Armer JM, Stewart BR. Effects of mindfulness-based stress reduction (MBSR) on health among breast cancer survivors. *Western Journal of Nursing Research*. 2011;33(8):996-1016.
91. Santorelli S. *Mindfulness-based stress reduction (MBSR): standards of practice*: Center for Mindfulness in Medicine, Health Care & Society, University of ...; 2014.
92. Dossey BM, Certificate C-DINC, Keegan L, Association C-DINC. *Holistic nursing*: Jones & Bartlett Publishers; 2012.
93. Commission J. *Spirituality, religion, beliefs, and cultural diversity. JCAHO's Standards/Elements of Performance Manual for Hospitals E-dition*. 2013.
94. Balboni TA, Paulk ME, Balboni MJ, Phelps AC, Loggers ET, Wright AA, et al. Provision of spiritual care to patients with advanced cancer: associations with medical care and quality of life near death. *Journal of Clinical Oncology*. 2009;28(3):445-52.
95. Hervás G, Cebolla A, Soler J. mindfulness based psychological intervention and benefits. *Clinica y salud*. 2016;27(3):115-24.
96. Johns SA, Brown LF, Beck-Coon K, Talib TL, Monahan PO, Giesler RB, et al. Randomized controlled pilot trial of mindfulness-based stress reduction compared to psychoeducational support for persistently fatigued breast and colorectal cancer survivors. *Supportive care in cancer*. 2016;24(10):4085-96.
97. Black DS, O'Reilly GA, Olmstead R, Breen EC, Irwin MR. Mindfulness meditation and improvement in sleep quality and daytime impairment among older adults with sleep disturbances: a randomized clinical trial. *JAMA internal medicine*. 2015;175(4):494-501.
98. A. Armani Kian, B. Vahdani , A. Noorbala, A. Nejatiasafa, M. Arbabi, S. Zenoozian, et al. The Impact of Mindfulness-Based Stress Reduction on Emotional Wellbeing and Glycemic Control of Patients with Type 2 Diabetes Mellitus. *Journal of Diabetes Research*. 2018:6.
99. Darskhan M, Vaziri S. *The effectiveness of mindfulness based stress reduction on the sense of psychological integrity and coping style in patient with asthma 2017*.
100. Samadi H, Hosseinil FS, Blidaci R. *the effectiveness of of 6 week mindfulness trining on shooters salivary cortisol concentration and sport performance 2016*.
101. Witek Janusek L, Tell D, HL M. Mindfulness based stress reduction provides psychological benefit and restores immune function of women newly diagnosed with breast cancer: A randomized trial with active control. *Brain Behav Immun*. 2019.
102. Richard R. Reich, Cecile A. Lengache, Thomas W. Klein, Newton C, Steve Shivers, Sophia Ramesar, et al. A Randomized Controlled Trial of the Effects of Mindfulness-Based Stress Reduction (MBSR[BC]) on Levels of Inflammatory Biomarkers Among Recovering Breast Cancer Survivors. *Biological Research for Nursing*. 2017;19(4):9.
103. Pascoe MC, Thompson DR, Jenkins ZM, Ski CF. Mindfulness mediates the physiological markers of stress: Systematic review and meta-analysis. *Journal of psychiatric research*. 2017;95:156-78.
104. Zhang J, Xu R, Wang B, Wang J. Effects of mindfulness-based therapy for patients with breast cancer: A systematic review and meta-analysis. *Complementary therapies in medicine*. 2016;26:1-10.
105. Raghavendra RM, Vadiraja H, Nagarathna R, Nagendra H, Rekha M, Vanitha N, et al. Effects of a yoga program on cortisol rhythm and mood states in early breast cancer patients undergoing adjuvant radiotherapy: a randomized controlled trial. *Integrative cancer therapies*. 2009;8(1):37-46.

106. Carlson LE, Speca M, Faris P, Patel KD. One year pre–post intervention follow-up of psychological, immune, endocrine and blood pressure outcomes of mindfulness-based stress reduction (MBSR) in breast and prostate cancer outpatients. *Brain, behavior, and immunity*. 2007;21(8):1038-49.
107. Matousek RH, Pruessner JC, Dobkin PL. Changes in the cortisol awakening response (CAR) following participation in mindfulness-based stress reduction in women who completed treatment for breast cancer. *Complementary therapies in clinical practice*. 2011;17(2):65-70.
108. Carlson LE, Beattie TL, Giese-Davis J, Faris P, Tamagawa R, Fick LJ, et al. Mindfulness-based cancer recovery and supportive-expressive therapy maintain telomere length relative to controls in distressed breast cancer survivors. *Cancer*. 2015;121(3):476-84.
109. ali m. Ethereal participate in Ashura mourning ceremonies of Muharram on mood (depression) Chamran University. Psychological achievements. 2013;20(1):213-26.
110. Beck AT, Steer RA, Carbin MG. Psychometric properties of the Beck Depression Inventory: Twenty-five years of evaluation. *Clinical psychology review*. 1988;8(1):77-100.
111. Stefan-Dabson K, Mohammadkhani P, Massah-Choulabi O. Psychometrics characteristic of Beck Depression Inventory-II in patients with magor depressive disorder. *Journal of rehabilitation*. 2007;8:82-0.
112. . !!! INVALID CITATION !!! {Kaviani, 2008 #94;.
113. Beck AT, Epstein N, Brown G, Steer RA. An inventory for measuring clinical anxiety: psychometric properties. *Journal of consulting and clinical psychology*. 1988;56(6):893.
114. Kaviani H, Mousavi A. Psychometric properties of the Persian version of Beck Anxiety Inventory (BAI). *Tehran University Medical Journal TUMS Publications*. 2008;66(2):136-40.
115. Cohen S, Kamarck T, Mermelstein R. A global measure of perceived stress. *Journal of health and social behavior*. 1983:385-96.
116. Hasan Zadeh LifShagard M, Tarkhan M, Zadeh T, Ehsan M. Effectiveness of stress inoculation training on perceived stress in pregnant women with infertility. *Journal of Holistic Nursing And Midwifery*. 2013;23(2):27-34.
117. Shaban M, Monjamed Z, Mehran A, Hasanpour Dehkordi A. The relation between the cancer characteristics and quality of life in the patients under chemotherapy. *Hayat*. 2004;10(3):79-84.
118. Ivan Nyklíček, Kuijpers KF. Effects of Mindfulness-Based Stress Reduction Intervention on Psychological Well-being and Quality of Life: Is Increased Mindfulness Indeed the Mechanism? *ann behav med*. 2008;35:10.
119. JY. Z, YQ. Z, ZW. F, YN. F, GC. Z, L. W. Randomized controlled trial of mindfulness-based stress reduction (MBSR) on posttraumatic growth of Chinese breast cancer survivors. *Psychol Health Med*. 2017;22(1):15.
120. Pourghane P, Sharif Azar E, Zaer Sabet F, Khorshidi M. Survey the efeect of religious beliefs in stress reduction in student of langroud factually of medical sciences. *Journal of holistic nursing and midwaifery*. 2010;20(63):-.
121. Kim HM, Choi YH. Factors affecting depression in elderly vulnerable people living alone. *Journal of Korean Academy of Community Health Nursing*. 2011;22(4):355-64.
122. Lee GK, Chan F, Berven NL. Factors affecting depression among people with chronic musculoskeletal pain: A structural equation model. *Rehabilitation Psychology*. 2007;52(1):33.
123. B. K, M. S, SE. R, C. F. Mindfulness-based stress reduction for healthy individuals: A meta-analysis. *J Psychosom Res*. 2015;78(6):9.
124. SA. J, LF. B, K. B-C, TL. T, PO. M, RB. G, et al. Randomized controlled pilot trial of mindfulness-based stress reduction compared to psychoeducational support for persistently fatigued breast and colorectal cancer survivors. *Support Care Cancer*. 2016;24(10):11.
125. Karimi A, Abdolmajid Bahreinian S, Ghobari Bonab B. An Investigation of the Impact of Meditation on Anxiety and Depression of Female Students. *Clinical Psychology Studies*. 2012;3(9):103-18.

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126. Meyer JD, Hayney MS, Coe CL, Ninos CL, Barrett BP. Differential Reduction of IP-10 and C-Reactive Protein via Aerobic Exercise or Mindfulness-Based Stress-Reduction Training in a Large Randomized Controlled Trial. *Journal of Sport and Exercise Psychology*. 2019;41(2):96-106.

## Abstract

**Background and objectives:** Breast cancer is the most common and affective cancer among women, affecting the quality of life, unwillingness to continue treatment and progression of the disease process. The purpose of this study was to investigate the effect of mindfulness on psychological reactions such as stress, anxiety, depression and laboratory tests including cortisol and C-reactive protein (CRP) in women with breast cancer.

**Methods:** This clinical trial study is available through sampling. 44 Participants were randomly divided into two groups (control and intervention) using random number table. The intervention group underwent mindfulness-based stress reduction therapy for eight weeks (one session each week). They completed pre- and post- test of Beck Depression Inventory-2, Beck Anxiety Inventory and Perceived Stress Scale were completed by participants and blood samples were taken for cortisol and C-protein assays. The data were analyzed by SPSS 18 software.

**Results:** There was no significant difference in psychological reactions, perceived stress and depression scores between the intervention and control groups before and after the intervention ( $P=0/15$ ). However, this difference was significant for anxiety level between the two groups before and after the intervention ( $P < 0.001$ ). there was no significant difference between the mean CRP and cortisol before and after the intervention ( $P = 0.18$ ).

Cunclusion: Conclusion: Considering that MBSR intervention was only effective on anxiety of women with breast cancer, it did not affect cortisol and CRP. It seems that due to the numerous physical and psychological problems that these patients endure, it may be necessary to plan for changes in the type and quality of psychological interventions along with comprehensive support with regard to need assessment in these patients.

Keywords: Psychological Reactions, Stress, Depression, Anxiety, Breast Cancer, Mindfulness-Based Stress Reduction, Inflammatory Factors, Cortisol, CRP



دانشگاه علوم پزشکی کرمان  
تحصیلات تکمیلی دانشگاه

بسمه تعالی  
صور تجلسه دفاع از پایان نامه

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پیوست.....

جلسه دفاعیه پایان نامه خانم معطره میرمحمودی بهراسمان دانشجوی کارشناسی ارشد پرستاری مراقبت های ویژه ورودی ۹۵ تحت عنوان " بررسی تأثیر مشاوره گروهی کاهش استرس مبتنی بر ذهن آگاهی بر واکنش های روان شناختی و برخی فاکتورهای التهابی زنان مبتلا به سرطان پستان مراجعه کننده به مطب ها ومراکز درمانی دانشگاه علوم پزشکی کرمان در سال ۱۳۹۷ " به راهنمایی دکتر مه لقا دهقان و دکتر پروین منگلیان در ساعت ۱۲ روز دوشنبه مورخ ۱۳۹۸/۱۱/۲۸ با حضور اعضای محترم هیات داوران متشکل از:

سمت	نام و نام خانوادگی	امضاء
الف : اساتید راهنما	دکتر مه لقا دهقان دکتر پروین منگلیان	
ب : استاد مشاور	دکتر عاطفه احمدی	
ج : عضو هیات داوران (داخلی)	دکتر ندا اسدی	
د : عضو هیات داوران (خارجی)	دکتر صدیقه ایرامنش	
ه : نماینده تحصیلات تکمیلی	دکتر جمیله فرخ زادپایان	

تشکیل گردید و ضمن ارزیابی به شرح پیوست با درجه عالی و نمره ۱۸/۸۷ مورد تأیید قرار گرفت.

دکتر فیروزه میرزایی دایر  
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