

INPLASY PROTOCOL

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Support: Not applicable.

**Review Stage at time of this
submission:** Data extraction.

Conflicts of interest:
None declared.

Effect of mindfulness stress reduction on the treatment of breast cancer patients: a systematic review and meta-analysis

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Review question / Objective: Use the latest randomized controlled trials to study the Effect of mindfulness stress reduction on the treatment of breast cancer patients.

Condition being studied: Breast cancer is the most commonly diagnosed cancer among women. It is also the leading cause of cancer deaths, accounting for 23% of all cancer cases and 14% of cancer deaths. At present, it is the most common cancer among women in developed and developing countries. Great changes have taken place in the treatment of breast cancer. Early detection is more effective and the diagnosis is improved, thus improving the survival rate. However, many women who survive in breast cancer inevitably encounter a series of problems related to disease and treatment. These problems have persisted throughout their lives, including major psychosocial problems, psychosocial decline and health-related quality of life (HRQoL). Immediate and long-term sequelae usually lead to anxiety, depression, fear of recurrence, sleep disorders or physical problems of pain and fatigue. It is well known that psychosocial intervention can improve the emotional health and quality of life of cancer patients. Mindfulness based stress reduction (MBSR) is an 8-week program consisting of educational materials, practical courses and four meditation techniques (meditation, body scanning, hada soft yoga and walking meditation). MBSR has been used in healthcare practice to provide interventions.

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 15 March 2022 and was last updated on 15 March 2022 (registration number INPLASY202230071).

INTRODUCTION

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Effect of mindfulness stress reduction on the treatment of breast cancer patients.

Condition being studied: Breast cancer is the most commonly diagnosed cancer among women. It is also the leading cause of cancer deaths, accounting for 23% of all cancer cases and 14% of cancer deaths. At present, it is the most common cancer among women in developed and developing countries. Great changes have taken place in the treatment of breast cancer. Early detection is more effective and the diagnosis is improved, thus improving the survival rate. However, many women who survive in breast cancer inevitably encounter a series of problems related to disease and treatment. These problems have persisted throughout their lives, including major psychosocial problems, psychosocial decline and health-related quality of life (HRQoL). Immediate and long-term sequelae usually lead to anxiety, depression, fear of recurrence, sleep disorders or physical problems of pain and fatigue. It is well known that psychosocial intervention can improve the emotional health and quality of life of cancer patients. Mindfulness based stress reduction (MBSR) is an 8-week program consisting of educational materials, practical courses and four meditation techniques (meditation, body scanning, hada soft yoga and walking meditation). MBSR has been used in healthcare practice to provide interventions.

METHODS

Participant or population: Female survivors of primary breast cancer.

Intervention: Mindfulness-based stress reduction (MBSR).

Comparator: Usual care or any other active treatments.

Study designs to be included: Randomized controlled trials.

Eligibility criteria: Female survivors of primary breast cancer.

Information sources: Ten databases will be systematically searched: Cochrane Library, PubMed, Web of Science, Embase,

MEDLINE, The Offshore Vessel Inspection Database, JAMA, ClinicalKey, Scopus, Up to date.

Main outcome(s): The quality of life. Odds ratios (OR) or risk ratios (RR) for dichotomous outcomes, mean differences (MD) for continuous outcomes, with their confidence intervals (CI), according to the results reported in each systematic review.

Additional outcome(s): Psychological health, body function and so on. Odds ratios (OR) or risk ratios (RR) for dichotomous outcomes, mean differences (MD) for continuous outcomes, with their confidence intervals (CI), according to the results reported in each systematic review.

Data management: All results of database searching will save into reference management software EndNote X9, duplicates will be removed via the duplicate search function and manually reviewing. After that, two reviewers will independently screen for eligible citations via title, abstract and keywords, any disagreements will be resolved through discussion or by a third reviewer. Two reviewers will independently extract relevant information using a predesigned form, which includes year of publication, numbers of patients enrolled, participant characteristics, the features of the interventions in the treatment and control groups, the types of outcome assessments, the methodological quality of the primary studies, the data analysis approaches, the sources of funding, and the primary conclusion(s).

Quality assessment / Risk of bias analysis: We will use the StataSE 15 tool to assess the methodological quality of the included reviews.

Strategy of data synthesis: We will not use aggregate or individual participant data, but we will provide a narrative synthesis of the findings from the included reviews structured around the type and content of interventions and outcomes reported. A narrative synthesis of the results of the StataSE 15 and GRADE assessments will

be conducted, and the data presented in a table to provide an indication of the overall quality and risk of bias of the included overviews.

Subgroup analysis: Not applicable.

Sensitivity analysis: Sensitivity analysis was performed by changing inclusion criteria or excluding low-quality studies. We will use the StataSE 15 tool to assess the Sensitivity analysis.

Country(ies) involved: China.

Keywords: Mindfulness-based stress reduction; Breast cancer.

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