

Systematic review of the effects of exercise and nutrition interventions on body composition in women with metastatic breast cancer

Innerarity, Celia; Kelly, Jaimon T; Van der Meij, Barbara S

Licence:
CC BY-NC-ND

[Link to output in Bond University research repository.](#)

Recommended citation(APA):

Innerarity, C., Kelly, J. T., & Van der Meij, B. S. (2018). *Systematic review of the effects of exercise and nutrition interventions on body composition in women with metastatic breast cancer*. Poster session presented at The 44th Annual Scientific Meeting of the Australasian Society of Parenteral and Enteral Nutrition, Sydney, Australia.

General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

For more information, or if you believe that this document breaches copyright, please contact the Bond University research repository coordinator.

SYSTEMATIC REVIEW OF THE EFFECTS OF EXERCISE AND NUTRITION INTERVENTIONS ON BODY COMPOSITION IN WOMEN WITH METASTATIC BREAST CANCER

Celia Innerarity¹, Jaimon Kelly¹, Barbara van der Meij^{1,2*}

1. Faculty of Health Sciences and Medicine, Bond University, Australia 4226

2. Dietetics and Foodservices, Mater Health, South Brisbane

*Corresponding Author: bvanderm@bond.edu.au

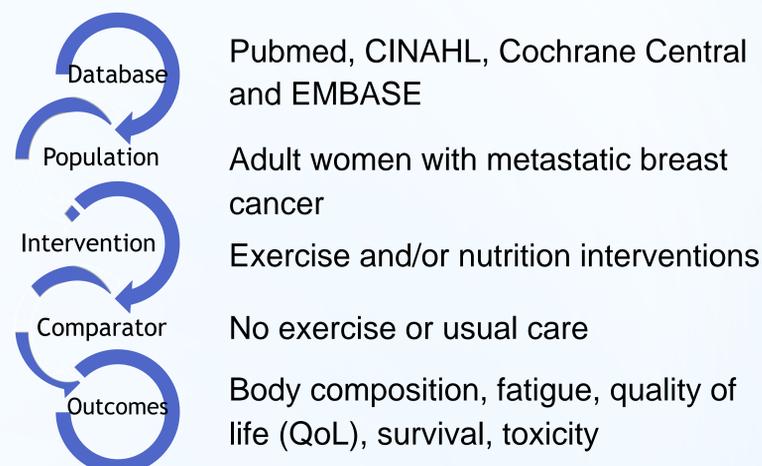
Background

Metastatic breast cancer (MBC) affects approximately 20-30 percent of women with breast cancer#. Current treatment options improve survival, however disease- or treatment related symptoms and muscle wasting are increasingly common and significantly decrease patients' quality of life. Because of the significant advances in treatment, survivorship has increased in the population with metastatic disease. As treatments are mainly palliative in nature, gaining quality of life becomes a most significant target.

Aim

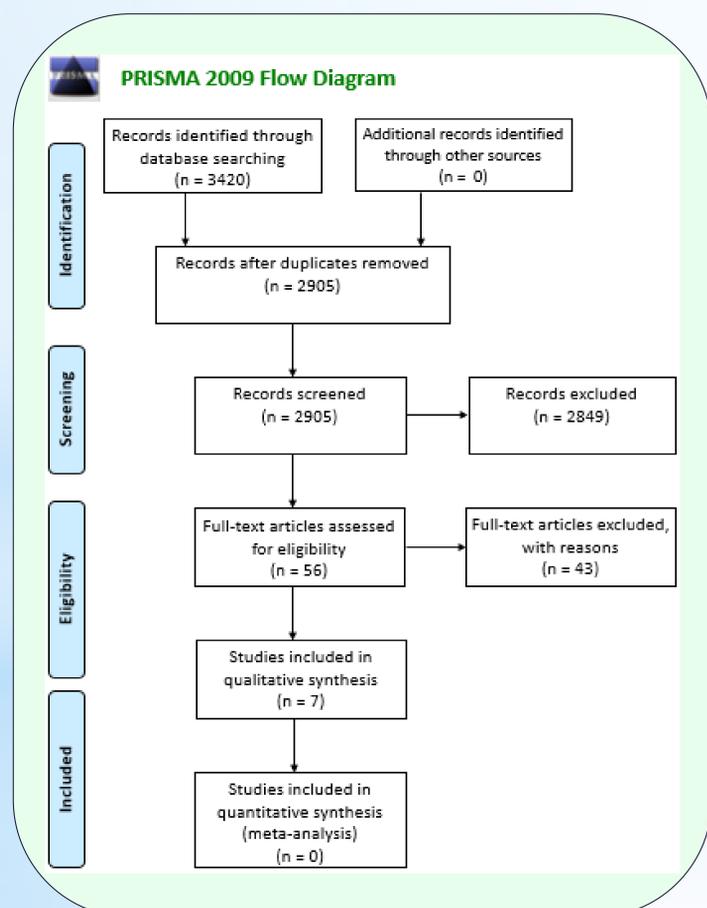
This systematic review aimed to evaluate the evidence for lifestyle interventions on body composition in women with MBC to inform future research.

Methods



Results

In total, only 7 studies were eligible for review, of which 3 were randomised controlled trials. No studies were identified that investigated the effects of lifestyle interventions on body composition in this population. Seven studies reported that exercise interventions, over a minimum duration of 4 weeks, found lower patient-reported fatigue, improved QoL and longer survival. All included studies were judged of low quality (low statistical power, small sample sizes, diverse study designs, and reliance on patient-reported data).



There was high heterogeneity regarding study designs and outcomes

No study reported any adverse events due to exercise

2 studies found decreased fatigue resulting from Yoga practice

Yoga was the most popular form of physical exercise intervention.

Only one study had an exercise and nutrition intervention

Body Composition

0 studies

Dietary management of MBC

0 studies

Fatigue

5 studies

Overall, the studies indicated physical exercise had a positive impact on fatigue

Quality of Life

3 Studies

General observations of improvement in QoL in patients who participated in a physical exercise intervention

Survival

1 study

Holistic treatment approach indicative of more favourable survival outcomes for MBC patients

Conclusions

To date, there is insufficient evidence to draw reliable conclusions regarding the impact of lifestyle interventions in MBC. Clinical practice is largely based on studies that have been performed in patients receiving curative treatment for breast cancer. Further work is needed regarding conducting high-quality RCTs with robust study designs that encompass larger sample sizes with high statistical power. Future research demands innovative, high-quality, large sample, randomised controlled trials to inform evidence-based guidelines on diet, mode, frequency and intensity of exercise for optimal body composition and QoL.