

INPLASY PROTOCOL

To cite: Joaquim et al. Impact of physical exercise programs in breast cancer survivors on health-related quality of life, physical fitness, and body composition: evidence from systematic reviews and meta-analyses. Inplasy protocol 2022110053. doi: 10.37766/inplasy2022.11.0053

Received: 11 November 2022

Published: 12 November 2022

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Support: AICSO.

Review Stage at time of this submission: Completed but not published.

Conflicts of interest:
None declared.

INTRODUCTION

Review question / Objective: In breast cancer survivors, what is the effect of physical exercise interventions compared to control on health-related quality of life, physical fitness, and body composition?

Impact of physical exercise programs in breast cancer survivors on health-related quality of life, physical fitness, and body composition: evidence from systematic reviews and meta-analyses

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Review question / Objective: In breast cancer survivors, what is the effect of physical exercise interventions compared to control on health-related quality of life, physical fitness, and body composition?

Condition being studied: Breast cancer.

Eligibility criteria: Inclusion criteria: full-length articles in English with clinical observations of humans, with a clearly defined clinical question, details of inclusion and exclusion criteria, details of searched databases and relevant search strategies, and a summary of results, per group, for at least one of the desired outcomes.

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 12 November 2022 and was last updated on 12 November 2022 (registration number INPLASY2022110053).

Rationale: Overview of systematic reviews and meta-analyses on the effect of physical exercise on the health-related quality of life, cardiorespiratory fitness, muscle strength, and body composition of breast cancer survivors.

Condition being studied: Breast cancer.

METHODS

Search strategy: PubMed (breast cancer), (effectiveness OR efficacy OR effective*), (Exercise OR Physical Activity OR Strength Training OR Strength Exercise OR Resistance Training OR Resistance Exercise OR Weight Training OR Weight Exercise OR Aerobic Training OR Aerobic Exercise OR Endurance Training OR Endurance Exercise OR Combined Training OR Combined Exercise), “Meta-Analysis”, and “Systematic Review”.

Participant or population: Adults (age >18y, male or female) breast cancer survivors who have concluded curative treatment (surgery and/or radiotherapy and/or chemotherapy) at least 1 month before the intervention, could be on hormone therapy (any type) and/or anti-HER2 drugs.

Intervention: Individual physical exercise interventions or in groups, supervised or unsupervised/home-based (including physical exercise that could be initially taught by an exercise professional, or involve periodical/ongoing supervision), and examining different modes of exercise (aerobic exercise, resistance exercise, and combined exercise).

Comparator: No intervention or standard care.

Study designs to be included: Systematic reviews and meta-analyses.

Eligibility criteria: Inclusion criteria: full-length articles in English with clinical observations of humans, with a clearly defined clinical question, details of inclusion and exclusion criteria, details of searched databases and relevant search strategies, and a summary of results, per group, for at least one of the desired outcomes.

Information sources: PubMed.

Main outcome(s): Health related-quality of life (measured by validated questionnaires);

cardiorespiratory fitness (measured by exercise stress test); isometric handgrip maximal strength (assessed by dynamometry); body composition (body weight, body mass index and/or waist circumference).

Quality assessment / Risk of bias analysis: The Assessment of Multiple Systematic Reviews v2 (AMSTAR-2) tool was used.

Strategy of data synthesis: Extraction of data was performed by four independent reviewers and it included: a) baseline characteristics of the population; b) baseline characteristics of the study as design, sample size, procedure evaluation and used comparators; c) assessed outcomes; d) meta-analyses results; and e) conclusions of the study.

Subgroup analysis: Meta-analysis was not performed.

Sensitivity analysis: Meta-analysis was not performed.

Language restriction: Search was limited to English publications.

Country(ies) involved: Portugal.

Keywords: Breast cancer; Physical exercise; Systematic review; Meta-analysis; Quality of life.

Contributions of each author:

Author 1 - Ana Joaquim - Conceptualization, search and trials selection, assessment of the risk of bias, data extraction, and writing of the first draft.

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Author 3 - Pedro Antunes - Search and trials selection, data extraction, and review of the first draft.

Author 4 - Andreia Capela - Review of the first draft.

Author 5 - Sofia Viamonte - Review of the first draft.

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Conceptualization and review of the first
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Conceptualization and review of the first
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