

INPLASY PROTOCOL

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Support: None.

Review Stage at time of this submission: Formal screening of search results against eligibility criteria.

Conflicts of interest:
The authors declare that they have no conflicts of interest relevant to the content of this review.

INTRODUCTION

Review question / Objective: This systematic review with meta-analysis was conducted to assess the effects of SSG-

Effects of the small-sided soccer games on blood pressure in untrained hypertensive adults: A systematic review and meta-analysis of randomized-controlled trials

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Review question / Objective: This systematic review with meta-analysis was conducted to assess the effects of SSG-based programs on systolic and diastolic blood pressure of untrained hypertensive adults.
Condition being studied: SSG-based training programs on untrained hypertensive adults.
Information sources: Electronic databases (Web of Science, Scopus, SPORTDiscus and PubMed) were searched for relevant publications.

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 21 September 2020 and was last updated on 21 September 2020 (registration number INPLASY202090078).

based programs on systolic and diastolic blood pressure of untrained hypertensive adults.

Rationale: Arterial hypertension is one of the main determinants for increasing the risk of death, cardiovascular mortality, and cardiovascular morbidity. For those reasons, engage the population in healthy lifestyles is important in which perform regular physical exercise constitutes one of the main components of non-pharmacological treatments. Due to the multiple possibilities of performing the exercise, practicing soccer in small formats (i.e., small-sided games – SSG) can be one of the alternatives to motivate hypertensive participants while keeping them physically active in moderate-to-vigorous activities. Thus, it is important to determine the possible beneficial effects of playing soccer SSG on the blood pressure of untrained hypertensive adults.

Condition being studied: SSG-based training programs on untrained hypertensive adults.

METHODS

Search strategy: Keywords and synonyms were entered in various combinations: (“Soccer” OR “Football”) AND (“soccer training” OR “football training” OR “soccer game*” OR “conditioned game*” OR “small-sided soccer game*” OR “small-sided and conditioned game*” OR “SSG”) AND (“hypertension” OR “hypertensive” OR “blood pressure”).

Participant or population: Untrained hypertensive adults.

Intervention: Small-sided games-based programs.

Comparator: Control group (passive).

Study designs to be included: Randomized Controlled Trials.

Eligibility criteria: The a priori inclusion criteria for this review were as follows: (i) randomized controlled trials including a control group and an intervention group exclusively using soccer SSG; (ii) intervention and control groups (only passive) including untrained hypertensive

adult population; (iii) articles written in English; (iv) only full-text and original articles. A posteriori inclusion criteria was: (i) a measure blood pressure (e.g., systolic blood pressure, diastolic blood pressure).

Information sources: Electronic databases (Web of Science, Scopus, SPORTDiscus and PubMed) were searched for relevant publications.

Main outcome(s): The diastolic blood pressure (mmHg) and systolic blood pressure (mmHg) were chosen as the outcomes.

Quality assessment / Risk of bias analysis: The Physiotherapy Evidence Database (PEDro) scale was used to assess the methodological quality of the randomized controlled trials included in this systematic review and meta-analysis. The scale scores the internal study validity in a range of 0 (high risk of bias) to 10 (low risk of bias). Eleven items are measured on the scale.

Strategy of data synthesis: Aiming to establish consistency in data analyzing and reporting, only measures that were analyzed two or more times for different articles were included. The diastolic blood pressure (mmHg) and systolic blood pressure (mmHg) were chosen as the outcomes. Additionally, the following information was extracted from the included studies: (i) number of participants (n), age (years), and sex; (ii) the SSGs format and pitch size (if available); (iii) period of intervention (number of weeks) and number of sessions per week (n/w); and (iv) regimen of intervention (work duration, work intensity, modality, relief duration, relief intensity, repetitions and series, between-set recovery).

Subgroup analysis: None.

Sensibility analysis: The extended Egger’s test (Egger, Smith, Schneider, & Minder, 1997) was used to assess the risk of bias across the studies. In the case of bias, a sensitivity analysis was conducted.

Language: English.

Country(ies) involved: Portugal; Chile.

Keywords: Football training; hypertension; drill-based games; blood pressure.

Contributions of each author:

Author 1 - Filipe Manuel Clemente - Head of the project; data search; methodological assessment; quantitative and qualitative synthesis; article writing and revision.

Author 2 - Rodrigo Ramirez-Campillo - Statistical analysis; article writing and revision.

Author 3 - Hugo Sarmiento - Data search; methodological assessment; article writing and revision.