INPLASY

The Effects of High-Intensity Interval Training on Basketball Players: A Systematic Review and Meta-Analysis

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ADMINISTRATIVE INFORMATION

Support - No support.

Review Stage at time of this submission - Piloting of the study selection process.

Conflicts of interest - None declared.

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Amendments - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 14 April 2024 and was last updated on 14 April 2024.

INTRODUCTION

*R*eview question / Objective To investigate the effects of high-intensity interval training on basketball players.

Condition being studied High-intensity interval training is a good training method for basketball players. But there is a lack of systematic review to investigate the effects systematically.

METHODS

Participant or population Basketball players without injure of all levels.

Intervention High-intensity interval training.

Comparator Without high-intensity interval training in control group.

Study designs to be included RCT.

Eligibility criteria (1) English articles with full text; (2) the participants of studies were basketball players; (3) intervention was high-intensity interval training (HIIT) with the duration of four weeks at least; (4) control group was without HIIT; (5) outcomes related to the effects of HIIT on physical fitness and basketball performance; (6) randomized controlled trial (RCT).

Information sources Web of Science, Scopus, PubMed, and SPORTDiscus.

Main outcome(s) Training method, duration, context. Physical fitness and basketball performance.

Quality assessment / Risk of bias analysis Revised Cochrane Risk of Bias tool for randomized trials (RoB 2.0).

Strategy of data synthesis According to previous research, the studies that provided three or more baseline and follow-up date for same variables were meta-analyzed by Meta-analysis software (version 3). The between-group effect sizes (ES; Hedge's g) were computed (SD). The inverse-variance random-effects model was used in meta-analysis. 95% confidence intervals (CIs) of ES values with trivial (0.6–1.2), large (>1.2–2.0), very large (>2.0–4.0), extremely large (>4.0) are displayed. The control group was equally divided when the studies had two or more experimental groups to ensure effective comparisons.

Subgroup analysis No.

Sensitivity analysis Not sure now. A sensitivity analysis was conducted when Egger's test yielded significant results.

Country(ies) involved China, Malaysis.

Keywords HIIT, physical fitness, basketball, team sports.

Contributions of each author
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