# **INPLASY**

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# The effect of mental fatigue on the performance of soccer players: A systematic review

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#### **ADMINISTRATIVE INFORMATION**

Support - No founding.

Review Stage at time of this submission - The review has not yet started.

Conflicts of interest - None declared.

**INPLASY registration number:** INPLASY202470015

**Amendments -** This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 05 July 2024 and was last updated on 05 July 2024.

### **INTRODUCTION**

Review question / Objective This study aims to explore the impact on football players' performance under mental fatigue, mainly using RCT experiments.

Rationale The quality of athletes' completion during training and competition is easily affected by mental fatigue. In particular, football players need to put in more effort to complete technology, tactics and quick decision-making during the game. In the process, the athletes' physical fitness will also be greatly affected. However, existing research has made a relatively complete evaluation of the impact of mental fatigue on the above performance of football players.

Condition being studied Mental fatigue is a neurological state caused by prolonged cognitive activity, which can lead to a decrease in the speed and quality of decision-making and can also reduce motor ability. As a team sport, football has

received more attention. Football players are susceptible to mental fatigue.

#### **METHODS**

**Search strategy** ("mental fatigue" OR "mental exertion" OR "cognitive fatigue" OR "cognitive exertion" OR "mental exhaustion" OR "mental tiredness") AND ("performance") AND (soccer OR football).

Participant or population Soccer players.

**Intervention** Cognitive tasks induce mental fatigue.

**Comparator** Mental fatigue vs. low / non mental fatigue.

Study designs to be included RCTs.

#### Eligibility criteria

(a) soccer players

- (b) cognitive tasks induce mental fatigue condition
- (c) mentally fatigued group vs. non-mentally fatigued group
- (d) performance.

**Information sources** Pubmed, Scopus, Web of Science, Ebscohost, reference and google scholar for grey literature.

Main outcome(s) In this review the attention will be directed in order to understand each session of the selected articles from a look at the topics: studies focus; sample description; analysis of instruments and procedures; analysis of results; and guidance for future work.

Quality assessment / Risk of bias analysis The studies' quality was assessed using a risk-of bias quality form (16 items) adapted from Law and colleagues (1998).

Strategy of data synthesis The initial screening was based on the analysis of the articles' title and summary. duplicated articles between databases were excluded. Next, some articles were selected for full-text analysis in order to verify if they meet all the inclusion criteria described by the PICOS strategy.

**Subgroup analysis** Not applicable . A meta-analysis will not be performed.

**Sensitivity analysis** Not applicable . A meta-analysis will not be performed.

Language restriction English.

Country(ies) involved China.

Keywords mental fatigue; performance; soccer.

Contributions of each author

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