INPLASY PROTOCOL

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None declared.

Effect of Core Training on Skill-Related Physical Fitness Performance Among Soccer Players: A Systematic Review

Luo, SY[1].

Review question / Objective: **This study aims to present a critical review of the existing literature on the effect of core training on skill-related physical fitness performance among soccer players, and to provide recommendations and suggest future research directions for both coaches and researchers.**
Information sources: **Prominent academic databases were considered to search the related literature, including Ebscohost, Scopus, PubMed, Web of Science, as well as Google Scholar, until the August 2021. For each independent database, a strategic search query was conducted by the title and abstract. The primary keywords considered for gathering related studies were: ("Core Strength Training" OR "Core-Muscle Training" OR "Core training" OR "Core-Stability Exercise" OR "Core Exercise") AND ("Physical Fitness" OR "Physical Performance" OR "Skill-Related Physical Fitness" OR "Agility" OR "Balance" OR "Coordination" OR "Power" OR "Speed" OR "Reaction Time") AND ("Soccer Players" OR "Soccer Athletes" OR "Football Players" OR "Football Athletes").**

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 09 September 2022 and was last updated on 09 September 2022 (registration number INPLASY202290045).

INTRODUCTION

Review question / Objective: **This study aims to present a critical review of the existing literature on the effect of core training on skill-related physical fitness performance among soccer players, and to provide recommendations and suggest future research directions for both coaches and researchers.**

Condition being studied: **core training is a new strength training method, which has been proven to benefit athletes' performance. But, it is still unknown whether core training could improve skill-**

related physical fitness among soccer athletes.

METHODS

Participant or population: Healthy soccer players.

Intervention: Core training.

Comparator: Any strength training method.

Study designs to be included: Based on PICOS, this study summarised all characterstics of population, intervention, comparison, outcome and study design.

Eligibility criteria: Based on PICOS, the study population must be healthy athletes without any sports injury, irrespective of gender or age. 2. The intervention of core training should be involved and isolated.iii.The comparison in studies should be either single-group or multiple-group trials. 3. The study results must include at least one skill-related physical fitness performancev.Articles must be experimental studies including Single-group Trials or Randomized Controlled Trials.

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Main outcome(s): Results: Core training could improve part skill-related physical fitness including power, speed, balance, and agility among soccer players.

Quality assessment / Risk of bias analysis: The PEDro scale has good validity and reliability and has been proved to be a reliable metric for the methodology quality in constructing a systematic review (Lima et al., 2013). This scale contains 11 items with scores ranging from 0 to 10. Two independent raters use "yes" (1 point) or "no" (0 points) to evaluate these 11 items, respectively. If there are differences in the scoring process, the third rater will solve them. However, since it is related to external effectiveness, the score of eligibility criteria will not be included in calculating the total score. The higher the score, the better the quality of the methods.

Strategy of data synthesis: Based on the results of the included literature, this study classifies the literature into four categories: (1) effect on power; (2) Effect on speed; (3) Effect on balance; (4) effect on Agility.

Subgroup analysis: No.

Sensitivity analysis: No.

Country(ies) involved: Malaysia.

Keywords: core training; skill-related physical fitness; soccer players.

Contributions of each author:
Author 1 - Shengyao Luo.