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Effect of SAQ training on physical fitness performance on soccer players: a systematic review and meta analysis

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None.

ADMINISTRATIVE INFORMATION

Support - None.

Review Stage at time of this submission - Data analysis.

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 15 March 2025 and was last updated on 15 March 2025.

INTRODUCTION

Review question / Objective The purpose of this systematic review is to analysis effect of Speed,Agility and Quickness Training on physical fitness performance among the soccer players and identify the gaps for this field.

Condition being studied Soccer is a physically demanding sport that requires players to perform high-intensity actions such as sprinting, jumping, rapid direction changes, and sudden accelerations. As game intensity increases, so do the demands on players' physical fitness, which is crucial for optimal performance. Key components of soccer fitness include speed, agility, endurance, strength, and power, all of which directly influence a player's ability to sustain high performance throughout a match.Speed, Agility, and Quickness (SAQ) training has gained attention as a specialized method aimed at enhancing physical fitness by improving neuromuscular coordination, movement efficiency, and explosive power. It is believed to contribute to better acceleration, faster reaction times, and overall improved athletic performance. However, the extent of its effectiveness in optimizing soccer players' physical fitness remains uncertain. Therefore, further research is needed to determine its impact on various aspects of physical conditioning in soccer.

METHODS

Participant or population Soccer players.

Intervention Any types of Speed,Agility and Quickness Training.

Comparator As for experiment group,the Speed, Agility.and Quickness training should be applied.As for control group,routine training or other training could be applied.

Study designs to be included RCT..

Eligibility criteria Eligibility criteria As for population:soccer players,as for intervention.the

study must involve Speed, Agility, and Quickness training as for outcome:study should report as least one result related to physical performance;as for study design:the study must be RCT.

Information sources Prominent academic databases were considered to search the related literature,including Ebscohost, Scopus, PubMed, Web of Science.Meanwhile, the search was also thoroughly carried out on Google Scholar and references,until the Feb 2025. For each independent database,a strategic search query was conducted by the title and abstract.

Main outcome(s) The Speed, Agility, and Quickness training could improve physical fitness performance in terms of strength,speed and agility.

Quality assessment / Risk of bias analysis The Quality Assessment / Risk of Bias Analysis was conducted using the ROB2 tool, evaluating 9 studies across five domains: D1 (randomization process), D2 (deviations from intended interventions), D3 (missing outcome data), D4 (measurement of the outcome), and D5 (selection of the reported result). The analysis revealed that 7 studies exhibited low risk of bias in D2, 8 studies in D3, and 8 studies in D4, indicating robust methodological practices in these areas. However, 4 studies raised some concerns in D1 (randomization process), particularly regarding the adequacy of randomization methods. Additionally, all 9 studies consistently showed a high risk of bias in D5 (other biases). As a result, the overall risk of bias for all 9 studies was assessed as high.

Strategy of data synthesis None.

Subgroup analysis None.

Sensitivity analysis None.

Country(ies) involved China.

Keywords Speed, Agility, and Quickness training;Physical fitness performance;Soccer players.

Contributions of each author

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