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Effects of SAQ training on skill performance among athletes: A systematic review

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ADMINISTRATIVE INFORMATION

Support - None.

Review Stage at time of this submission - Preliminary searches.

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 26 March 2026 and was last updated on 26 March 2026.

INTRODUCTION

Review question / Objective This review aims to examine whether speed, agility, and quickness (SAQ) training improves skill performance among athletes. This review will focus on athletes who receive structured SAQ training and will summarize the effects of this training on sport-specific skill outcomes.

Rationale Many sports require both fast movement and technical skill. Coaches often use SAQ training to improve movement ability. Some studies suggest that SAQ training may also improve sport skills, such as dribbling, passing, and shooting. However, current results are not fully consistent.Some studies report positive effects.Other studies report small or unclear effects.A systematic review is needed to organize the current evidence.This review will help clarify the effect of SAQ training on skill performance among athletes.

Condition being studied This review will study the use of speed, agility, and quickness training in athletes and its possible effect on skill performance. Skill performance in this review refers to the ability to perform sport-specific techniques effectively. Examples include dribbling, passing, shooting, kicking, and other technical skill tasks used in sport settings.

METHODS

Search strategy The review will search several electronic databases.These databases include PubMed, Web of Science, Scopus, and EBSCOhost.The review will also search Google Scholar.The review will check the reference lists of relevant studies.The main search terms will include combinations of the following words:("speed agility quickness" OR "SAQ training")AND("skill performance" OR "technical skill" OR "sport skill" OR "technical performance")AND(athlete* OR player* OR sport*).

Participant or population This review will include athletes who participate in organized sport training. Participants may come from team sports or individual sports. Participants may be male or female. Participants may be youth or adults if the study clearly identifies them as athletes.

Intervention The intervention will be structured speed, agility, and quickness (SAQ) training programs. These programs may include ladder drills, cone drills, sprint drills, and reaction drills.

Comparator The comparator may be regular sport training, other physical training programs, or no additional training.

Study designs to be included This review will include randomized controlled trials and other controlled experimental studies. This review will not include observational studies, case reports, reviews, or conference abstracts without full data.

Eligibility criteria Studies will be included if they meet the following criteria: participants are athletes; the intervention is a structured SAQ training program; the study includes a comparison group; and the study reports at least one outcome related to skill performance. Studies will be excluded if they do not involve athletes, do not use SAQ training as the main intervention, or do not report sport-specific skill outcomes.

Information sources Information sources will include PubMed, Web of Science, Scopus, EBSCOhost, Google Scholar, and the reference lists of included studies. Full-text articles will be reviewed when available.

Main outcome(s) The main outcomes will be measures of sport skill performance. These outcomes may include dribbling performance, passing accuracy, shooting accuracy, kicking performance, ball control, and other sport-specific technical skill tests reported by the included studies.

Additional outcome(s) This review may also report additional outcomes related to sport performance.These outcomes may include movement speed, agility test results, reaction time, or other physical performance measures reported by the included studies.The review will describe these outcomes when the studies provide relevant information.

Data management Two reviewers will independently screen the records and extract the data when applicable. The review team will organize study information in a structured table. Disagreements will be resolved through discussion.

Quality assessment / Risk of bias analysis The methodological quality of the included studies will be assessed by using the PEDro scale. The review will examine items such as random allocation, baseline comparability, blinding, and completeness of outcome data.

Strategy of data synthesis This review will use narrative synthesis to summarize the findings of the included studies. The review will compare study characteristics, intervention features, and reported skill outcomes across studies. This review will not perform a meta-analysis.

Subgroup analysis None.

Sensitivity analysis None.

Language restriction English language studies will be included.

Country(ies) involved China.

Other relevant information None.

Keywords SAQ training; speed agility quickness; skill performance; athletes.

Dissemination plans The findings of this review will be submitted to a peer-reviewed journal.

Contributions of each author

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