

Which effects do have small sided games on tactical, technical and physical development on young football players

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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 30 January 2025 and was last updated on 30 January 2025.

INTRODUCTION

Review question / Objective This systematic review was conducted to assess the effects of small-sided games (SSGs) on tactical, technical and physical demands in young football athletes. These games are in vogue, they are used no matter the ability level or players age, therefore, it is important to know how much they influence the development of these demands and what type of exercises can reach each one.

Rationale The SSGs allow to combine the tactical, technical and physical demands of football “eliminating” the partition of them on single tasks for each one. Pinheiro et al (2018). To Clemente and Mendes (2015) these games allow to manipulate the different task constrains making them more or less intense depending on the objectives outlined. With regard to learning, the “variability of practice” leads to “long-term” benefits Gabbett et al., (2009, as cited in Clemente and Mendes 2015), due to the fact that reduced

and conditioned games are “situations that emulate with high degree of similarity between games in their formal character” Reilly (2005, as cited in Clemente and Mendes 2015), allowing technical development combined with “dynamic reality and self-organized game, developing skills regarding the tactical behavior of the game”, Almeida et al., (2013, as cited in Clemente and Mendes 2015) and this interaction of elements allows the learning of “the essential factors of the game” in teaching moments, Clemente and Mendes (2015).

Condition being studied Effects of small-sided games on Tactical behavior, Specific Skills development and Physical demands. Were considered the studies that included different numerical relations, different pitch size constrains preintervention and post-intervention.

METHODS

Search strategy The documents were searched until November 7 of 2024. The query used was:

((("football player"[title/abstract]) OR ("football athlete"[title/abstract])) OR ("soccer player"[title/abstract]) OR ("soccer athlete"[title/abstract]) AND (("physical"[title/abstract]) OR ("technical"[title/abstract]) OR ("tactical"[title/abstract]) AND ("small sided game"[title/abstract]) OR ("small sized game"[title/abstract])).

Participant or population Young male or female football athletes.

Intervention It incorporated a small sided games program with different pitch configurations, different numerical relations and different constrains.

Comparator Tactical, technical, physical development and small sided games.

Study designs to be included Randomized controlled trials.

Eligibility criteria Inclusion criteria: (i) youth athletes (under 18 years old). (ii) Football athletes; (iii) Small Sided Games; (iv) Tactical, technical and physical demands results; (v) Original studies, Randomized controlled trials; (vi) Full-text studies written in English and Portuguese. Exclusion criteria: (i) Athletes over 18 yards old; (ii) Athletes from other sports; (iii) Regular full-sized game (11 vs. 11); (iv) Other outcomes not including tactical, technical or physical analyses; (v) Systematic review or Umbrella review; (vi) Written in other languages than English or Portuguese.

Information sources The documents were searched through electronic databases: PubMed; SPORTDiscus; Web Of Science; EBSCO; SciELO.

Main outcome(s) (1) larger fields present greater demands from the players and closer to competition. (2) Total Distance (TD) covered his higher in larger pitches as well as Pace, Accelerations (Acc) and Decelerations (Dec). (3) Heart Rate (HR) increases with larger fields. (4) More passes per minute when the number of players is higher (e.g. 4×4,6×6,8×8). (5) Numerical superiority in attack can help a better decision making. (6) 1×1 bouts activate anaerobic mechanism.

Additional outcome(s) The correlation between numerical players and pitch size influence the activation of different demands.

Quality assessment / Risk of bias analysis The Physiotherapy Evidence Database (PEDRo) scale was used to assess the methodological quality of

the studies included in this systematic review. The scale scores the internal study validity in a range of 0 (low methodological quality) to 10 (high methodological quality). Eleven items are measured in the scale.

Strategy of data synthesis The following information was extracted from the included articles: type of study design, number of participants (n), Preintervention and post-intervention means, standard deviations (SD) and effect sizes (ES) for each outcome, age group (under 18 years old), identification of the effects, dimension of analysis: internal and external load (physical demands), technical actions, tactical behavior, outcomes explored and mean findings.

Subgroup analysis None.

Sensitivity analysis Haven been considered only high quality studies (low risk of bias), n(11).

Language restriction English and Portuguese.

Country(ies) involved Portugal.

References

Clemente, F., & Mendes, R. (2015). Treinar jogando. Jogos reduzidos e condicionados no futebol. Pinheiro, V., Belchior, D., Malico Sousa, P., & Santos, F. (2018). Manual para Treinadores de Futebol de Excelência.

Keywords Demands, Drill based Games, Skills, Performance, Adaptations.

Contributions of each author

Author 1 - Filipe Neves - FMC lead the project, wrote and revised the original manuscript and RRC analyzed and interpreted the data, wrote the statistical report and revised the original manuscript.

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