

INPLASY PROTOCOL

To cite: Sarmiento et al. Match Analysis in Team Ball Sports – An Umbrella Review of Systematic Reviews and Meta-analysis. Inplasy protocol 202080067. doi: 10.37766/inplasy2020.8.0067

Match Analysis in Team Ball Sports – An Umbrella Review of Systematic Reviews and Meta-analysis

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Received: 16 August 2020

Published: 16 August 2020

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Support: None

Review Stage at time of this submission: Data analysis.

Conflicts of interest:
No conflict of interest.

Review question / Objective: The aim of the present paper is threefold: (1) to systematically review available systematic reviews and meta-analysis on match analysis in team ball sports; (2) to address the quality, strengths and limitations of the published evidence; and (3) to identify current gaps in the literature and make key suggestions for future research.
Condition being studied: Match analysis in formal and small-sided games.

Main outcome(s): Performance dimensions: tactical, technical/biomechanical, physical/physiological.

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 16 August 2020 and was last updated on 16 August 2020 (registration number INPLASY202080067).

INTRODUCTION

Review question / Objective: The aim of the present paper is threefold: (1) to systematically review available systematic reviews and meta-analysis on match analysis in team ball sports; (2) to address the quality, strengths and

limitations of the published evidence; and (3) to identify current gaps in the literature and make key suggestions for future research.

Rationale: Since empirical studies and systematic reviews published in match

analysis have proliferated exponentially in the last few years, it is now important to carry out an umbrella review that allows: (1) informing researchers about the evolution of knowledge on match analysis across the different team ball sports; (2) the characterization of new techniques for gathering new information.

Condition being studied: Match analysis in formal and small-sided games.

METHODS

Search strategy: Potential studies were identified by using a systematic search process. In a first phase, the Web of Science (all databases), PubMed, Cochrane library (Cochrane Database of Systematic Reviews), Scopus and SPORTDiscus databases were searched for relevant publications prior to 7 August 2020.

Participant or population: Team ball players.

Intervention: Team ball players in different conditions.

Comparator: None.

Study designs to be included: Systematic reviews and systematic reviews with meta-analysis.

Eligibility criteria: The publications included in the first search round met the following criteria, according the pre-defined inclusion and exclusion criteria: (1) contained relevant data concerning match analysis in human (male and female) team ball sports; (2) were systematic reviews or/and meta-analysis; and (3) were written in the English language.

Information sources: Potential studies were identified by using a systematic search process. In a first phase, the Web of Science (all databases), PubMed, Cochrane library (Cochrane Database of Systematic Reviews), Scopus and SPORTDiscus databases were searched for relevant publications prior to 7 August 2020, with the following search terms included in

Boolean search strategies: (“match analysis” OR “performance analysis” OR “notational analysis” OR “game analysis” OR “tactical analysis” OR “patterns of play”) AND (“team sport*” OR football OR soccer OR futsal OR handball OR volleyball OR basketball OR hockey OR rugby OR cricket OR “water polo” OR lacrosse OR softball OR korfbal) AND (review OR meta-analysis). Second, the reference lists of the studies recovered were hand searched to identify potentially eligible studies not captured by the electronic searches. Third, an external expert has been contacted in order to verify the final list of references included in this umbrella review in order to understand if there was any study that was not detected through our research.

Main outcome(s): Performance dimensions: tactical, technical/biomechanical, physical/physiological.

Additional outcome(s): Levels of analysis.

Quality assessment / Risk of bias analysis: Appraisal of included articles for methodological quality was evaluated using the Assessing the Methodological Quality of Systematic Reviews (AMSTAR-2) tool, which consists of 16 items used to assess the quality of systematic reviews and meta-analysis. A rating system to rate and classify all reviews into critically low quality, low quality, moderate quality and high quality. The quality of each eligible article was analysed by two researchers independently. If the assessment was unclear, consensus was either reached by discussion or with the help of a third reviewer.

Strategy of data synthesis: Data synthesis is organized in level of analysis (micro level, molecular level, meso level and macro level) and considering the contextual factors.

Subgroup analysis: No analysis.

Sensibility analysis: No analysis.

Language: English.

Country(ies) involved: Portugal; United Kingdom.

Keywords: Time-motion analysis; tactical analysis; notational analysis; performance analysis.

Contributions of each author:

Author 1 - Hugo Sarmiento - Head of the project; Data search; Methodological analysis; Article written and revision.

Author 2 - Filipe Manuel Clemente - Data search; Qualitative synthesis; article written and revision.

Author 3 - José Afonso - Data search; Qualitative synthesis; article written and revision.

Author 4 - Duarte Araújo - Article written and revision.

Author 5 - Paulo Nobre - Methodological analysis and article written and revision.

Author 6 - Miguel Fachada - Methodological analysis and article written and revision.

Author 7 - Keith Davids - Article written and revision.