Review

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Decoding the complexities of transitions in football: a comprehensive narrative review

Introduction

Football is a complex and dynamic invasion game that generates a constant flow of new data and information. These data can be analyzed in terms of the technical, tactical, and strategic aspects of the game (M. D. Hughes & Bartlett, 2002). Coaches and players must be adaptable in order to fulfill their game plan or make changes in response to their opponents' actions. Some authors argue that football is a game of chance with an element of unpredictability (Sarmento et al., 2014), while others view it as a dynamic interaction between two teams (Sampaio & Leite, 2012). Teams and players organize their activities according to strategic plans, principles of play, and action guidelines. Successful teams adapt their tactics to the changing demands of their opponents (Lago-Peñas, Gómez-Ruano, & Yang, 2017) in order to enhance their performance and improve their chances of winning. According to various authors, there is a lack of research that examines transitions as a whole and more studies are needed to understand the relationship between tactical factors and successful transitions (Gonzalez-Rodenas, Lopez-Bondia, Calabuig, Pérez-Turpin, & Aranda, 2016; Turner & Sayers, 2017). Transitions have garnered increasing interest in game analysis as they occur at various moments during the game.

The outcome of a game is the most effective way for a team to determine whether they are meeting their expectations. Performance indicators are variables that attempt to define and provide context for performance aspects (M. D. Hughes & Bartlett, 2002) and can be linked to offensive and defensive processes (Fernandez-Navarro et al., 2016). These indicators can be classified as match descriptors, as well as indices of biomechanical, technical, and tactical performance. Performance indicators have been used to evaluate performance without being influenced by external normative data or the data of the opposing team (M. D. Hughes & Bartlett, 2002). In their study, Hewitt, Greenham, and Norton (2016) presented a comprehensive framework based on metrics within five key moments of play: (1) Established Attack, (2) Transition from Attack to Defense, (3) Established Defense, (4) Transition from Defense to Attack, and (5) Set Pieces. This framework aims to provide a basis for measuring and describing game styles. The proposed metrics offer practical applications for coaches and practitioners, enabling them to assess and compare game styles effectively. Moreover, the framework facilitates performance analysts in categorizing and monitoring game styles across time, leagues, and age groups, contributing to a deeper understanding of dynamic interactions in invasion-based field sports. The study lays the foundation for a systematic approach to game style analysis, aligning with the broader use of performance indicators to enhance team strengths and address weaknesses (J. Barreira et al., 2022; Lago-Peñas & Dellal, 2010). When examining the opposing team, the goal of the analysis is to comprehend the performance indicators that exert the most significant influence on the opposing team's approach. This aids in anticipating the indicators they may employ in the future (Moura, Eduardo, Martins, & Cunha, 2014; Wright, Nelson, & Bradley, 2013).

Despite the extensive analysis of offensive play, over the years there was a limited number of studies dedicated to defensive play. Nevertheless, the recent increase of studies exploring defensive play suggests the need for an overview in this domain (Forcher, Altmann, Forcher, Jekauc, & Kempe, 2022). This confirms that even if offensive and defensive transitions have gained equal importance in modern football and in the literature, their definitions remain contentious and there is a lack of comprehensive and definitive studies that consider transitions as a specific game principle.

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Different studies have shown that a relevant number of goals are scored during transitions (Maneiro et al., 2008). This is further highlighted by the fact that many set pieces, which also lead to goals, occur as a result of a transition. Therefore, the goals scored through transitions, both directly and indirectly, hold a great deal of significance in the outcome of a game.

Studies have shown that a significant proportion of goals scored in football games are achieved during transitions. For example, a study that analyzed 32 games from the European Championship in Portugal in 2004 found that 20.3% of goals were scored through counterattacks and 35.6% through set pieces (Yiannakos & Armatas, 2006). Similarly, an analysis of the goals during the World Cup 2006 found that 20.3% were achieved through counterattacks and 32.6% through set pieces (Armatas & Yiannakos, 2010). Another study that characterized 16 knockout rounds of the soccer World Cup 2010 found that 18.8% of goals were scored through counterattacks and 20.0% through set pieces (Gonzalez-Rodenas, Lopez-Bondia, Moreno, & Malavés, 2015b). These findings demonstrate the importance of the transition moment in football and the significance of the goals scored during these moments.

Similarly, a study based on 167 goals of the English FA Premier League season found that "transitions in play accounted for 63% of all goals scored" (Wright, Atkins, Polman, Jones, & Jones, 2011) and "they contribute over 56% of all attempts on goal" (Wright et al., 2011). Additionally, the study found that 35.6% of goals came from Set Pieces (Wright, Atkins, Polman, Jones, &., 2011). This highlights the importance of transitions in football, not only in terms of the number of goals scored but also in terms of attempts on goal. Other studies have also yielded interesting findings, such as the one conducted in the English Premier League where a sample of 380 games revealed that the top teams in the league exhibited a dominant style of play characterized by transitions (Gollan, Ferrar, & Norton, 2018). Also, research carried out in the Norwegian professional league found that counterattacks were more effective than elaborate attacks in producing goals, scoring opportunities, and box possessions (Tenga, Ronglan, & Bahr, 2010).

All the data and evidence presented in the studies indicate the significance of the transition moment during football games and the effectiveness of transition play. To improve the performance of teams and their chances of success, it is crucial to further analyze and detail both offensive and defensive transitions, with the aim of making them more trainable, effective, and successful.

This narrative review aims to summarize the existing knowledge on offensive and defensive transitions in football and how these transitions impact different performance indicators and playing styles. This narrative aims to address the gap in the literature by highlighting the absence of comprehensive and definitive studies that explicitly recognize transitions as a distinct game principle. The review also aims to connect the different moments of the game to the transition process and to explain how transitions influence offensive and defensive processes. The ultimate goal is to identify areas for future research that can shed light on the significance of transitions in the game of football, which is characterized by a constant flow of transitions.

Methods

The procedure carried out in this narrative review followed the following steps: (i) data identification of significant literature, (ii) selection, (iii) extraction, (iv) compilation thematic ideas. The protocol was not registered prior to the initiation of the project to avoid temporary delays in this critical situation.

Data sources

The search was performed by three authors to identify articles published before 15 November 2023, in two electronic databases (PubMed and Web of Science). The authors of this review were not blinded to journal names or manuscript authors. The search was conducted throughout the full text. The search strategy combined terms covering the topics related with transitions in sports and football phases, moments, and processes: ("offensive/defensive transitions in football" or "moments in football" or "counterattacks" or "transitions in sports"). Search strategy focused mainly on football even if nondirect literature from football was used.

Data selection

After completion of the search by the researchers the articles were downloaded and stored with Mendeley software. Subsequently, one the authors screened (P.E.) the remaining records to verify the inclusion/exclusion criteria using a hierarchical approach in two phases. The papers were excluded when they were not original and met the following exclusion criteria: (1) no football- or transitions-related documents; and (2) not from reliable sources or best practices used.

Discussion

Game principles and performance indicators

Performance analysis allows for the understanding and prediction of past and future behavior patterns for teams and/or individuals, as noted by Carling et al. (2014) and Lago-Peñas et al. (2017). This can be achieved through various methods such as factorial analysis (Fernandez-Navarro et al., 2016), notational analysis (Fernandez-Navarro et al., 2016), correspondence analysis (Di Salvo et al., 2007), or sequential analysis (Lapresa, Arana, Anguera, Garzón, & Belén Garzón, 2013; Paulis, Perea, & Hernández, 2008). These analyses are often viewed as being of a personal or team nature because they focus on performance indicators that team leaders consider most relevant for their game and team (Di Salvo et al., 2007). There have been numerous suggestions for tactical performance indicators (Fernandez-Navarro et al., 2016; Mackenzie & Cushion, 2012), as well as tactical metrics (Winter & Pfeiffer, 2016) and tactical patterns (Fernandez-Navarro et al., 2016). However, their use must be cautious as they can be influenced by other situational variables (Sampaio & Leite,

2012) and, as a result, impact the performance of the team and their game mode (Fernandez-Navarro, Fradua, Zubillaga, & McRobert, 2018).

In addition to these insights, recent contributions emphasize the growing interest in sports analytics, particularly in football (Plakias et al., 2023). The research by Plakias et al. provided a structured framework for analysts and coaches, categorizing distinct playing styles in European soccer leagues based on a comprehensive analysis of 88 performance indicators. The focus on build-up and transitions in the game proves pivotal, offering valuable insights for training processes in all four key moments of the game. Similarly, a recent study concentrating on defensive playing styles in professional football identified 17 key performance indicators related to defensive styles (Ruan et al., 2023). The findings emphasize the importance of consciously adjusting defensive styles for improved performance, suggesting potential applications in scouting and match preparation.

Moreover, some authors have highlighted the importance of various technical–tactical–strategic performance indicators in football (M. D. Hughes & Bartlett, 2002). These indicators can include a wide range of measures, such as ball possession (Lago-Peñas & Dellal, 2010), the success of ball possessions in terms of scoring goals (Lago-Ballesteros, Lago-Peñas, & Rey, 2012), the characteristics of offensive play (Pratas, Volossovitch, & Ferreira, 2012), game interruptions (Siegle & Lames, 2012), and corner kick characteristics (Sainz de Baranda & Lopez-Riquelme, 2012). Additionally, football performance analysis also focuses on defensive performance indicators, such as the type and location of ball recovery (Almeida, Ferreira, & Volossovitch, 2014), and the time required to regain possession of the ball (defensive reaction time) (Vogelbein, Nopp, & Hökelmann, 2014), among others. It is evident that these performance indicators are closely linked to different tactical principles of play. Tactical principles are defined as a set of game forms that allow players to find solutions to problems posed by the opposing team (Garganta & Pinto, 1994). When properly applied, these principles enable teams to control the game in both offensive and defensive phases. Therefore, performance analyses that identify the performance indicators where teams present the most weaknesses are crucial for teams to gain a competitive advantage (M. D. Hughes & Bartlett, 2002). According to Bettega, Scaglia, Nascimento, Ibáñez, and Galatti (2021) and Clemente, Martins, Mendes, and Figueiredo (2014), various tactical principles have been developed and characterized, including general principles, operational principles, and fundamental principles. These principles are summarized and systematized in **Table 1**.

Transitions and counterattacks

Transitions and counterattacks have been identified as crucial moments in achieving tactical performance in football. Various studies, including case studies of specific teams, analyses of specific leagues, and transversal studies, have found that counterattacks are a vital element in achieving success on the field. For example, Gonzalez-Rodenas and colleagues (2015a) found that counterattacks are more effective in creating scoring opportunities than other types of attacks, particularly when the opposing team is defensively imbalanced. Additionally, these studies also found that counterattacks are closely related to the offensive transition phase. It is important to note that counterattacks and transitions are distinct concepts, but they are closely related. A counterattack is defined as a "fast direct attack with few players", triggered when the ball is won followed by a "quick pass played over many opponents" that in the instant of passing, "one or two players should rush forward to support the player who receives the ball in plenty of space" (Lago-Ballesteros et al., 2012).

Counterattacks and transitions have been found to be crucial moments in achieving tactical performance in football. Counterattacks are defined as an attack that begins when the ball is won in open play, and progresses by exploiting or creating the opposing team's defensive imbalance from the beginning to the

Abstract

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Abstract

Background. Transitions in football are pivotal moments in the game, carrying significant tactical and strategic implications. Despite the lack of a consensus on the exact definition and duration of transitions, their importance is evident in the analysis of football matches. Clear connections exist between performance indicators, team play styles, and specific game moments. The evolution of game analysis, facilitated by technology employing spatial, optical, and motion sensors, has heightened the recognition of transition actions.

Methods. This narrative review synthesizes perspectives on transitions from various authors and investigates how these perspectives have evolved over time. By utilizing real-time analysis through advanced technology, the review aims to offer a comprehensive understanding of transitions in football.

Results. Counterattacks are identified as a key outcome emerging from transitions, affirming existing literature suggesting that each transition prompts a response from the opposing team. The review underscores the need to objectively define the dichotomy of transitions in terms of the moment of play and style of play, mitigating overlap and confusion.

Conclusion. Transitions are complex phenomena occurring independently of ball possession. Understanding their classification, determinants, and outcomes is crucial for optimizing team performance. By shedding light on the multifaceted nature of transitions, this review contributes to a more nuanced comprehension of this critical aspect of football strategy.

Keywords

Performance indicators · Style-of-play · Offensive/defensive processes · Counterattack · Game moments

Table 1 Summary and systematization of the different game principles into general, operational and fundamental according to the game process the players are in

Game principles				
General principles	**Operational principles**		**Fundamental principles**	
	Defensive	**Offensive**	**Defensive**	**Offensive**
– not to allow numerical inferiority – to avoid numerical equality – to seek to create numerical superiority	– to avoid opponent finalization – to recover the ball – to prevent the opponent's progression – to protect the goal – to reduce the opponent's play space	– to maintain ball possession – to create offensive actions – to advance on the opponent's field – to create finalization situations – to try to score	– delay – defensive coverage – balance – concentration – defensive unit	– penetration – offensive coverage – depth mobility – width and length – the offensive unit

Bettega et al., 2021; Clemente et al., 2014

Table 2 Game moments and styles of play described in football

Game moments	Style of play	
Attack established Defense established – *Transition attack/defense* – *Transition defensive/attack* (Oliveira, 2004) Set pieces (Gollan et al., 2018; Hewitt et al., 2016)	Possession Set pieces attack – *Counterattacking play* – *Transitional play* (Lago-Peñas et al., 2017)	Direct play – *Counterattack* Maintenance Build up Sustained threat Fast tempo Crossing High pressure (Fernandez-Navarro et al., 2018)

end of the play, using a penetrative pass, dribble, or a combination of both (Fernandez-Navarro et al., 2018; Tenga et al., 2010). The main objective of counterattacks is to exploit the weaknesses and imbalances of the opposing defense in order to achieve penetration (Gonzalez-Rodenas et al., 2016; Lago-Peñas et al., 2017; Tenga et al., 2010). Counterattacks should be performed as soon as possible after regaining possession and progress relatively quickly (Tenga et al., 2010). Some authors have also suggested that the speed at which the ball is moved up the field during a counterattack determines its value (Fernandez-Navarro et al., 2018). Counterattack is described as typically involving moving the ball quickly in transitional moments trying to outnumber defenders (Hewitt et al., 2016).

Transition periods present both exciting opportunities and vulnerabilities (Turner & Sayers, 2017) that teams should aim to exploit in order to achieve their goals. Theoretically, it is established that in a transition, the team that takes possession should try to reach the target as quickly as possible in order to capitalize on space that may have resulted from the possession shift (Garganta, Maia, & Basto, 1997). However, there is no clear consensus in the literature on when a transition begins and ends. Some authors have suggested that the defensive moment of the game starts before the ball is lost, and the offensive moment begins before the recovery (Maneiro et al., 2019).

Several studies have found that fast offensive transitions give the possibility of a higher conversion rate of shots per goal than slower attacks (M. Hughes & Franks, 2005; Yiannakos & Armatas, 2006), which increases the chances of scoring a goal by transitions than by establishing an attack. Additionally, the "counterattacks were characterized not only by the offensive game tactics, but also by the opposing defensive tactics" (Gonzalez-Rodenas, Lopez-Bondia, Calabuig, James, & Aranda, 2015a) and during the transition periods, the positioning and behavior of both teams create a tactical environment in which the final result is interdependent and multifactorial (Gonzalez-Rodenas et al., 2016).

From the above, it is clear that counterattacks result from transitions, and that these represent a crucial moment in the development of the game. Therefore, in this narrative, counterattacks will be considered as transitions. However, it is important to note that the term "transition" has been used inadvertently to explain two distinct concepts, which can generate confusion. Some authors consider the game to have four moments (Oliveira, 2004) or five moments (Gollan et al., 2018; Hewitt et al., 2016), where the term "Transitions" seems to define two of these moments (**Table 2**). Regardless of the author, when referencing and describing play styles, the terminology "transition/counterattack play" has always emerged (Gómez, Mitrotasios, Armatas, & Lago-Peñas, 2018). Further research is necessary to understand the tactical factors related to offensive success in counterattack possessions in order to improve the training process of this transitional moment.

Offensive and defensive transitions

In today's football, teams have evolved to exhibit complex positional, tactical, and strategic overlaps (**Fig. 1**). Recent research suggests that all the concepts outlined in **Fig. 1**, namely strategies, tactics, principles of play, styles of play, and key moments of the game, stem from the coach's philosophy regarding the team's overarching game model (Plakias, 2020). Additionally, the same author indicates that consideration should be given to players' abilities, the club's culture, structure, and objectives, as well as the national culture of clubs and coaches. Nevertheless, to fully understand the game, it is important to distinguish between the concepts of offensive and defensive transitions. These concepts are crucial to

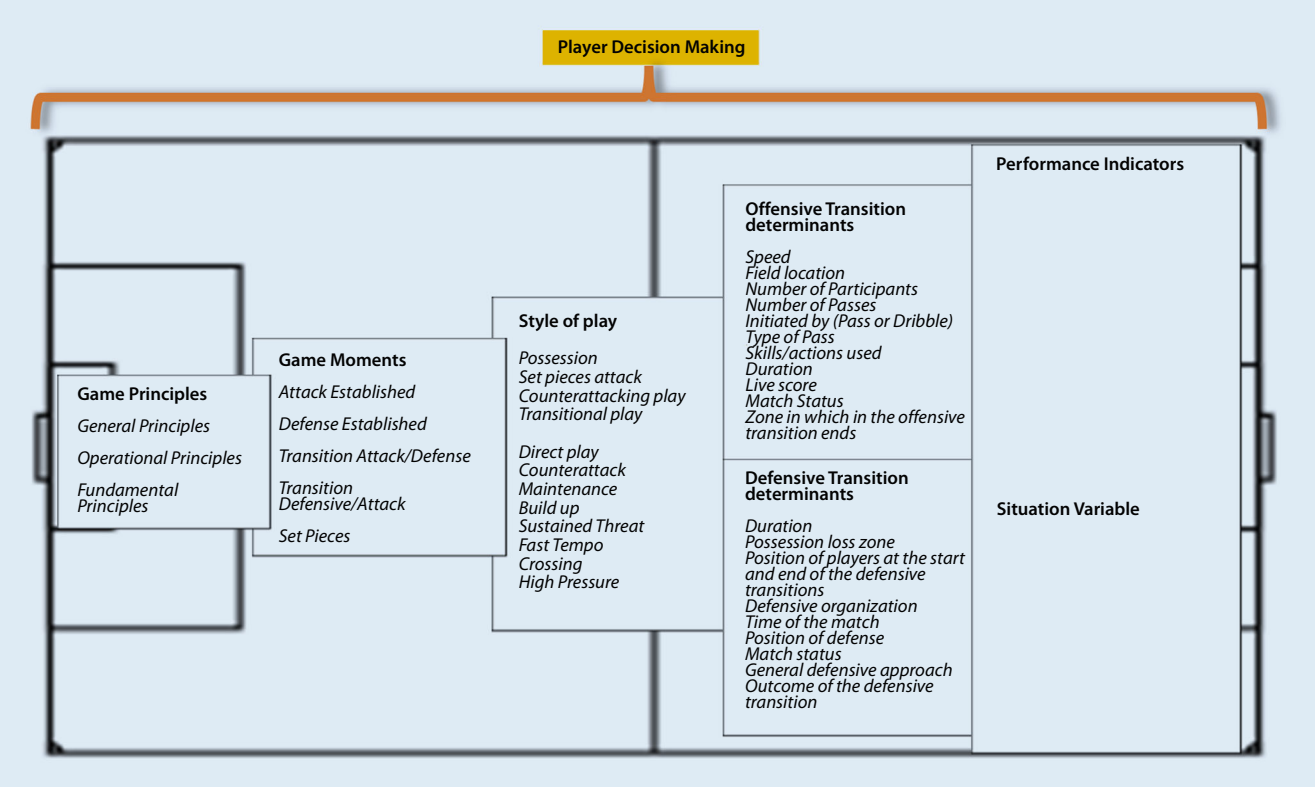

Fig. 1 ▲ Existing correlations in football. A player's decision will impact their own performance as well as the team's performance. For that reason, players should be aware of the environment in which they are involved to make decisions that are in the best interest of the team

understanding the dynamics of the game and how teams approach both attacking and defending during transitions.

According to Yiannakos and Armatas (2006), offensive transitions are initiated when a team gains possession of the ball and end when the team achieves a predetermined outcome, marking the transition from the defensive to the offensive phase. This moment of change in ball possession is considered a crucial aspect of high-level competitive football (Vincent & Durny, 2017). In contrast, defensive transitions are defined as beginning when a team loses possession of the ball and attempts to reposition itself in order to regain control of the ball (Wade, 1996). However, there is still a lack of consensus on when exactly these transitions begin and end, and the process between them. Recent studies have suggested that the "defensive moment of the game starts before the ball is lost, and the offensive moment begins before the recovery" (Maneiro, Rubén et al., 2008; Maneiro et al., 2019), which further complicates the definition, analysis and characterization of offensive and defensive transitions. Despite the lack of consensus on the definitions of offensive and defensive transitions, there is a general agreement among authors on the concept that whenever there is an offensive transition, there is an opposing response from the opposing team in the form of a defensive transition (Casal, Andujar, Losada, Ardá, & Maneiro, 2016; Vogelbein et al., 2014; Winter & Pfeiffer, 2016). Furthermore, it is acknowledged that offensive and defensive transitions according to their characteristics can still be classified as they start, the outcome and characterized by determinants observed during the transitions. Also, offensive and defensive transitions are integral to a team's offensive and defensive processes, even if they can occur independently of possession of the ball. This classification allows for more detailed understanding of the dynamics of the game and how teams approach both attacking and defending during transitions.

According to how they start, offensive transitions can be classified and identified as "state transition" if the team that gains possession of the ball manages to start a play immediately, and as "interphase transition" if the game is forced to stop due to loss of ball possession or if any reglementary violation is committed (D. Barreira & Garganta, 2007; Machado, Barreira, & Garganta, 2012). The same authors (2012) define the "state-transition" and the "interphase transition" as "the recovery/loss of ball possession happens, or not, directly, that is, the dynamic phase of the game is maintained" and these are valid for both offensive and defensive transition. A defensive transition can be classified as direct and indirect (D. Barreira, 2014). For example, a transition is considered direct "if they started and ended directly" (C. Casal, Andujar, Losada, & Ardá, 2010), which means that the "game flow was preserved, with no interruption, and the ball was recovered" (D. Barreira, 2014). The ball is recovered by an interception by tackle or by intervention of the goalkeeper in the defensive phase (D. Barreira, 2014). A transition is considered indirect if the "game flow was

broken up due to an opponent's violation of the laws of the game or because the ball leaves the pitch" (D. Barreira, 2014). The ball is recovery by opponent's violation of the laws of the game, by a corner kick, a goal kick, or a dropped ball (D. Barreira, 2014).

Regarding the outcome, the offensive transitions can be claimed as positive or non-positive. Thus, a positive offensive transition comprises all those that result in a scoring situation by shot, a penalty kick, or a free kick and non-positive if it ends up as an out pass or intercepted pass (Turner & Sayers, 2017). Thus, all situations that allow the team to keep possession of the ball in a privilege situation or bring a clear possibility of a goal are considered positive. Thus, offensive transitions that result in a corner kick or a throw-in at the attacking third of the field should be considered as positive. Likewise, those that result in offensive offside should be consider as non-positive. Contrary to what the vast majority of authors have defined and shown over time, Turner & Sayers (2017) clearly indicate "that no significant relationship was found between transition outcome and the average transition speed". These results are extremely interesting as "this suggests that positive and non-positive attacking outcomes occur irrespective of how fast the team transitioned" (Turner & Sayers, 2017). This fact seems to open a valuable perspective for future studies, which should include motion sensors, in the sense of understanding which performance indicators best influence the outcomes of the offensive transitions, but above all, it paves the way for transitions not to be linked to performance speed but rather tactical and decision-making factors that can be reached by optical sensors. In defensive transition, the outcomes have been classified as successful if there is a "direct recovery of the ball without the intervention of the goalkeeper" and failure if a "shot or goal by another team, or interruption of play of any type" ends the transition (C. Casal et al., 2010). Similarly, some authors classified as successful or unsuccessful based on whether the team that loses possession manages to regain it or not (D. Barreira, 2014; Casal et al., 2016).

Relatively to the determinants or variables of the offensive transition and how they affect the successful transition remains undefined (Turner & Sayers, 2017). Many authors in their studies consider only a specific characteristic or determinant of the offensive or defensive transition, so there is a lack of studies that analyze the transitions as a whole.

These determinants are difficult to characterize in isolation as they influence each other. The situational variables must also be considered, although these refer to external and uncontrollable aspects by the teams. The situational variables most often considered are the match status, match location and quality of opposition (C. Casal et al., 2010), to which must be added the playing venue and the current score line (Fernandez-Navarro et al., 2018; Wade, 1998; Machado et al., 2012; Barreira & Garganta, 2007). According to Fernandez-Navarro et al. (2018), these situation variables, both "location of the match" and "quality of the opposition", "influence the different styles of play with the exception of the transition game", which in addition to being particularly interesting suggests that further study is needed to clarify the concept of transition and understand the tactical factors related to offensive and defensive success.

In summary, the concepts of transition, counterattack, and their relationship have been widely discussed in the literature. Studies have shown that the number of goals obtained through transition and counterattacks are significant, that they are highly effective in creating scoring opportunities, and that they are closely linked to the outcome of the game. The characteristics and determinants of offensive and defensive transitions have been defined, although there is still a lack of consensus among authors on when they begin and end and the process between. Additionally, there is a need for more research to understand the tactical factors and decision-making that are related to offensive and defensive success in transitions, in order to improve the training process. On that it is also important to distinguish between the different types of transitions, such as state transitions, interphase transitions, direct, and indirect, and the outcomes, such as positive and non-positive, to make them more trainable, effective, and successful. Finally, studies have emphasized the importance of considering situational variables, such as match status, location, and quality of opposition, in the analysis of transitions. There is a clear need for further studies to focus on the defensive transitions and the specific determinants that influence their success.

Are "moments of play" and "defensive and offensive processes" independent?

It is important to note that these moments of play and processes are not independent from each other, as they are closely related and interact with one another. The offensive and defensive processes are constantly changing throughout the game, and a team's style of play will influence the way in which these processes are executed. For example, a team that prioritizes possession-based play will likely have a different approach to offensive and defensive transitions compared to a team that focuses on transitional play. Another example of this relates the team's strategic behavior to the process and moment of the game in which the team finds itself. A team may have possession of the ball but still be in a defensive process, such as when they are trying to defend a lead late in the game. Conversely, a team may not have possession of the ball but still be in an offensive process, such as when they are pressing high up the field to try and win the ball back in a dangerous area. Therefore, it is important to consider not only ball possession, but also the tactical and strategic objectives of each team, as well as the specific moments and phases of the game, when defining and analyzing offensive and defensive processes.

Considering **Table 2**, it seems obvious that the style of play influences and even determine the moments of the game as well as the game processes, namely the relationship between speed, space (location) and the nature of the actions (Gómez et al., 2018). Hewitt et al. (2016) present a definition of style of play which mentions the importance of the players' movements and the interaction between

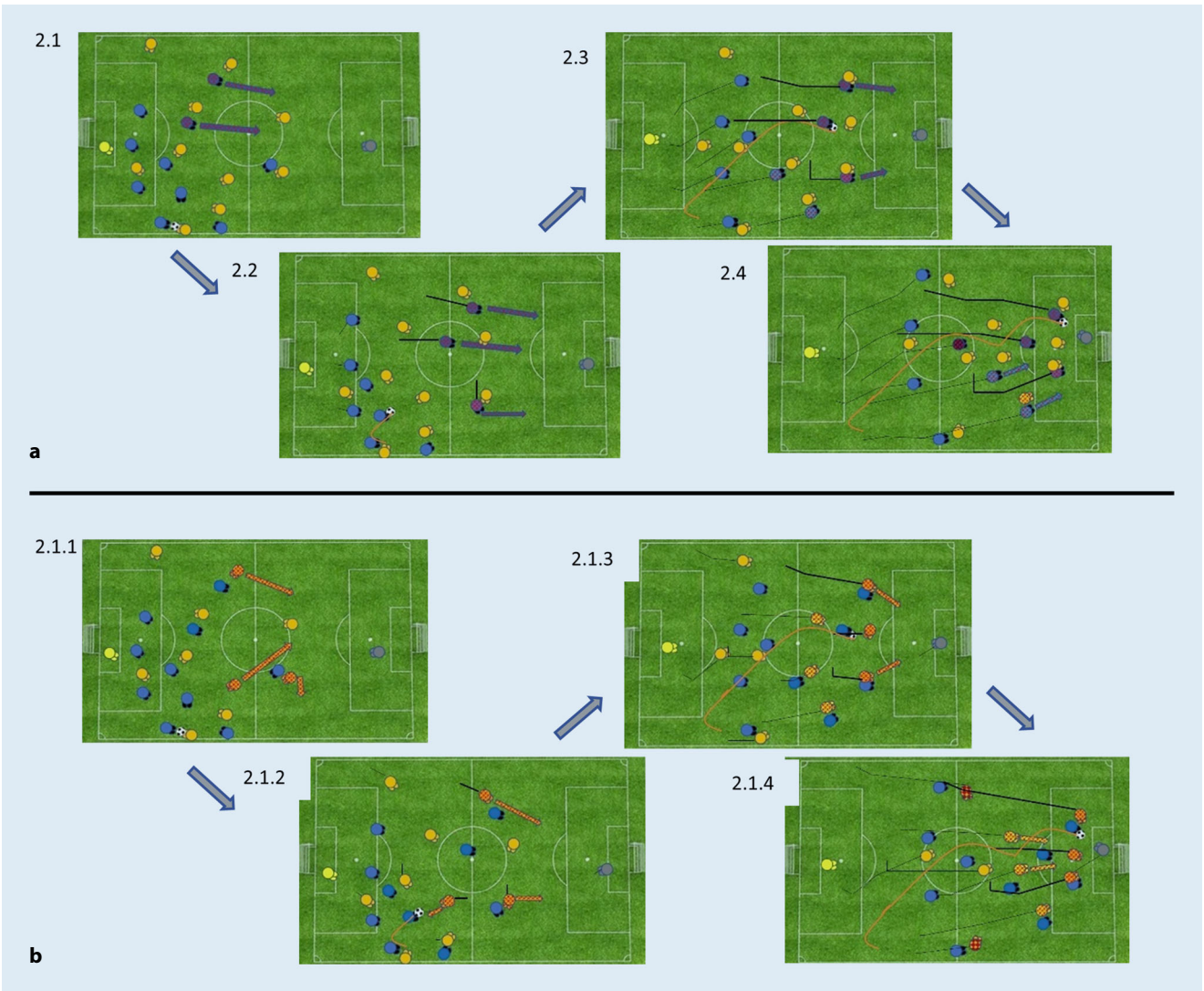

Fig. 2 ▲ Players in different game moments inside one game process. The figure illustrates a hypothetical realistic situation created to better describe the offensive/defensive transition and how a team will be in a defensive/offensive process and some players of the same team will be in a different game moment from the rest of the team. The *thinner black lines* represent the previous movements of the players. The *thick black lines* represent the most significant moves and they come from the fact of the players where well body orientated and have identified the space to invade previously. The *thick orange line* represents the ball movements. Offensive Team Point of View—Established Defense to Offensive Transition: **a** *2.1—Blue Team* in Defensive Process where it is possible to identify two players in an Offensive Transition mode as they have identified the space to invade in case of change possession and they have their body orientation ready to initiate the offensive transition. *2.2*—Blue Team with possession. The two previous players identified in *2.1* have advantage on the offensive transition for having the correct body orientation and having previously identified the space to invade. A third player is also part of the transition process. *2.3*—The ball is possessed by a player identified in *2.1*, who invaded the space identified in *2.1*. The offensive transition becomes very promising with a 3v3 game situation in the last third of the game. It is possible to identify two players coming to support ("Transition supporter's players") the transition in case the team delay the play. *2.4*—Promising finish where it is possible to identify the support transition players and a new player that is currently in a Defensive Transition mode in case the team loses possession. **b** Defensive Team Point of View—Established Attack to Defensive Transition: *2.1.1—Yellow team* in offensive process where it is possible to identify three players in a Defensive Transition mode as they identified the space to cover in case of a change possession. The players had their body orientation ready to initiate a defensive transition at any time. *2.1.2*—Yellow team lost the possession. The three players previously identified in *2.1.1* have the advantage on the defensive transition for having correct body orientation and having previously identified the space to cover. The players make decisions according with the team's style of play/strategy. *2.1.3*—The yellow team is trying to reorganize their defense line adjusting their position according with the opponents and the position of the ball. It is possible to identified three other players catching up on their defensive positions. *2.1.4*—Promising finish for the blue team. Yellow team is still reorganizing themselves. It is possible to identify three defenders trying to catch up their position ("transition helper's players") as well as two possible players adapting their position and body orientation to be in an offensive transition mode in case the yellow team again obtains the possession. Summary: Is possible to identify players in both teams in a different game moment than other players in their team. Those who were identified are predicting the loss of gain of the possession of the ball

them and the ball, considering the variables of speed, time, and space (location). Additionally, the situational variables, such as the match status and location, will also have an impact on the way in which these moments and processes are executed.

Overall, while these moments of play and processes can be defined and analyzed separately, they must be considered in relation to one another to fully understand the dynamics of the game. Although the connection between a moment of the game and the offensive/defensive process of the game seems simple, it is crucial to define it and show its limits. Thus, the defensive process is constituted when a team does not have possession of the ball and has as principle to delay or make unfeasible the offensive game of the opposition (Wade, 1996). The offensive process is constituted when a team obtains the possession of the ball and has as principle to attack the opponent team with the intention of obtaining goals (Gonzalez-Rodenas et al., 2015b).

In the same way that when a team is in an offensive transition there is an opposite response from the opposing team in the form of a defensive transition, it seems logical that while one team is in an offensive process the other is in a defensive process (**Fig. 2**). However, and considering the increasing impact of tactical performance indicators on game analysis, it seems to be limiting that the definition of offensive and defensive game processes is based on the variable "to have or not" ball possession.

In the realm of competitive sports, the potential for a change in status during game moments is a crucial aspect that teams must take into consideration in their preparation and tactics. The relative position of the ball and the key positioning of players in both defensive and offensive processes are determining factors in whether a team is in a defensive posture while in possession of the ball or in an offensive posture while not in possession. It is important to note that transition moments are inherently risky, as the attacking team must maintain possession in order to avoid vulnerability to counterattack (Gollan et al., 2018). Therefore, it is imperative that all stakeholders know what their team configures as a positive outcome for these moments.

Previous research has also demonstrated that teams ranked higher in competitions tend to exhibit an offensive transition style characterized by physical attributes that lend themselves to strength during these moments, in contrast to teams ranked lower (Gollan et al., 2018). This highlights the need for specific training to address these moments in the game. Furthermore, Gollan et al. (2018) notes that "a transition game style is characterized by relative dominance in both offensive and defensive transition moments".

The literature on team sports performance suggests that behaviors occurring "off-the-ball" may be of huge significance to influence a team performance (Santos, Lago-Peñas, & García-García, 2017; Taylor, Mellalieu, James, & Barter, 2010; Taylor, Mellalieu, James, & Shearer, 2008). These behaviors include runs, both offensive and defensive, tactical behaviors, and positioning that occur away from the ball and can be influenced by situational variables (Taylor et al., 2008). The aim of these behaviors is trying to predict future actions of the game and this way take advantage for their teams. In this way, and being the behaviors adopted by the players based on the game plan established through a preplanned strategy, which also includes variations and tactical adjustments in response to an opponent's response (Gollan et al., 2018; Memmert, Lemmink, & Sampaio, 2017), it seems overt to corroborate the idea that strategies and tactics are crucial factors to determine the outcome of a football match (Yiannakos & Armatas, 2006), which will reflect the importance of the player positioning of the ball.

This suggest that the best teams in possession, in addition of being in the offensive process, prepare the moment of defensive transition as if predicting or anticipating the moment of loss of possession. Likewise, the best teams in the defensive process anticipate the offensive transition through tactical and positional changes of their players. The team will then be in a better position to start an offensive transition with better chances of success.

Therefore, it is logical to conclude that the objective of strategies is achieved through the application of specific tactics (Carling, C., Williams, A. M., & Reilly, 2005) and that tactical performance indicators are key considerations for the analysis and training of the game (Gonzalez-Rodenas et al., 2015b; M. D. Hughes & Bartlett, 2002).

Limitations

Although the review was not carried out in a systematic manner, it nevertheless offers useful information once the narrative review was conducted with scientific rigor. Potential limitations include selection bias due to subjective inclusion criteria and the possibility of excluding relevant studies. While providing valuable insights, readers should approach the results with caution and be aware of potential biases in the narrative review. Acknowledging the potential impact of subjective inclusion criteria, the paper highlights the risk of selection bias. This subjectivity introduces a limitation as it may affect the representativeness and objectivity of the evidence considered in the review. The deliberate choice of a narrative methodology for critical decision-making is acknowledged. However, the paper recognizes the challenges associated with this approach, particularly in terms of conceptualizations of performance indicators, offensive and defensive transitions, game moments, and principles of the game. This highlights the need for careful interpretation due to potential ambiguity and inconsistencies in data interpretation. The decision not to limit the timeframe for the search, aiming to include critical older data, is noted. However, the paper acknowledges the potential downside of this strategy: the inadvertent inclusion of outdated evidence. This limitation emphasizes the importance of considering the relevance and applicability of findings in the context of the evolving nature of research. Confining the search to PubMed and Web of Science is acknowledged as a limitation. This decision may result in the omission of studies from other sources

or the grey literature. The potential exclusion of relevant research beyond these databases limits the comprehensiveness of the evidence base and may impact the generalizability of the review's findings.

In summary, the paper's strengths in scientific rigor are juxtaposed with these acknowledged limitations, emphasizing the importance of a nuanced and critical approach to interpreting the results. These considerations pave the way for future research to address and build upon these limitations for a more comprehensive understanding of the subject matter.

Conclusion

Transition moments in football play a crucial role in determining the outcome of a match. Studies have shown that a significant portion of goals scored in major tournaments and leagues are achieved through transitions and set pieces.

Furthermore, it has been found that teams that excel in transition moments, both offensive and defensive, tend to perform better in matches. However, despite the importance of these moments, there is still a lack of consensus on the definition and characterization of offensive and defensive transitions. Additionally, more research is needed to understand the performance indicators that influence the outcome of these transitions and how teams can effectively train for them.

Although the transition can be classified according to a wide range of conditions and characteristics, the need to objectify the beginning of the offensive/defensive transition seems evident, as some authors have recently questioned the moment in which it begins. Likewise, the end of transitions is not truly established, namely when they originate an established attack, which makes it difficult to perceive the end of the defense/attack and attack/defense transition moment with the established Attack/Defend moment. It is imperative that the terminology around the concept "Transitions" be distinctive and clarified to be able to immediately identify which of the concepts is being talked about, since the same reference has been used to identify a moment of play and a style of play.

One area of future research could be the examination of the relationship between transition moments and team strategies and tactics. Strategies and tactics play a crucial role in determining the outcome of a match, and it would be interesting to study how teams specifically prepare for transition moments in relation to their overall game plan. Another area of interest could be the study of the impact of situational variables, such as match status and quality of opposition, on transition moments. Understanding how these variables influence transition moments could provide valuable insights for teams and coaches in their match preparation.

Finally, it would be valuable to conduct more research that analyzes transition moments as a whole, considering various determinants and performance indicators. Technology will play a crucial role in the study of these variables through motion and optical sensors that allow finding spatial patterns of movement. This would provide a more comprehensive understanding of how transition moments affect a team's performance and help teams develop more effective strategies and tactics for these crucial moments in the game. As the game of football continues to evolve, it is crucial that we have a deeper understanding of the factors that influence the outcome of matches, including transition moments.

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Declarations

Conflict of interest. P. Eusebio, P. Prieto-González and R. Marcelino declare that they have no competing interests.

For this article no studies with human participants or animals were performed by any of the authors. All studies mentioned were in accordance with the ethical standards indicated in each case.

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