
EFFECTS OF SMALL-SIDED AND CONDITIONED GAMES OF PASSING IN SPORT OF FOOTBALL: A SYSTEMATIC REVIEW**EFEITOS DOS JOGOS REDUZIDOS E CONDICIONADOS DE PASSE NO FUTEBOL: UMA REVISÃO SISTEMÁTICA****Marcos Antônio Mattos dos Reis¹; Davi Pereira Monte Oliveira²; Estefan Gemas Neto²; Umberto Cesar Corrêa²**¹Federal University of Alagoas, Arapiraca-AL, Brazil.²University of São Paulo, São Paulo-SP, Brazil.**RESUMO**

Este estudo desenvolveu uma revisão sistemática de pesquisas sobre jogos reduzidos e condicionados (JRC) no futebol com foco no passe. O processo envolveu quatro etapas: identificação dos estudos, triagem, elegibilidade e inclusão dos artigos. Foram utilizadas dezoito palavras-chave divididas em dois grupos — relacionadas aos jogos reduzidos e condicionados e ao passe — totalizando 81 combinações entre elas. A busca em seis bases de dados foi finalizada em 30 de abril de 2024. Dezoito artigos foram incluídos na revisão sistemática. Os principais resultados foram: a) os JRC foram mais eficazes do que os exercícios descontextualizados para melhorar o desempenho no passe; b) JRC de outros esportes coletivos permitiram transferência para a tomada de decisão e o passe no futebol; c) configurações numéricas ofensivas nos JRC influenciaram o passe de forma distinta — superioridade numérica aumentou o desempenho, enquanto inferioridade o reduziu; d) a igualdade numérica melhorou o desempenho apenas em formatos específicos (por exemplo, G + 6 vs. 6 + G); e) menos jogadores nos JRC resultaram em mais passes e melhor desempenho; f) o desempenho no passe foi influenciado pela complexidade dos JRC, idade dos jogadores e nível tático — tarefas mais simples e maior desempenho tático favoreceram a efetividade, com grupos etários respondendo de maneira diferente às configurações numéricas.

Palavras-chave: Jogos reduzidos. Jogos condicionados. Futebol. Desempenho do passe. Revisão.

ABSTRACT

This study conducted a systematic review of research on small-sided and conditioned games (SSCG) of football passing. It comprised four stages: identification of studies, screening, eligibility and inclusion of articles. Eighteen keywords divided into two groups related to the small-sided and conditioned games and the pass were used, totaling 81 combinations between them. The search across six databases was finalized on April 30, 2024. Eighteen articles were included in the systematic review. The main results were: a) SSCG were more effective than decontextualized drills in improving passing performance; b) SSCG from other team sports enabled transfer to football decision-making and passing; c) offensive numerical configurations in SSCG influenced passing differently—superiority enhanced performance, while inferiority reduced it; d) numerical equality improved performance only in specific formats (e.g., GK + 6 vs. 6 + GK); e) fewer players in SSCG led to more passes and better performance; f) passing performance was influenced by SSCG complexity, players' age, and tactical level—easier tasks and higher tactical performance favored effectiveness, with age groups responding differently to numerical configurations.

Keywords: Small-sided game. Conditioned games. Football. Passing performance. Review.

Introduction

Over the last decades the small-sided and conditioned games (SSCG) have increasingly been recognized as an important strategy for promoting improvements in sports performance, including in the contexts of teaching and training in team sports^{1,2}. Emerged from children and adolescents' playful football activities performed on the streets, especially in Brazil^{3,4}, it refers to a game subsystem whose complexity is inferior to the formal game, but with its dynamic system nature preserved^{2,5-10}.

The basic assumption here is the SSCG enable the improvement of tactical and technical motor skills through practice trials near to the real situations, but with lower cognitive and socio-emotional demands, which facilitate understanding of the game's dynamics^{2,11-15}. For instance, regarding the sport of football, SSCG have been manipulated in terms of decreasing the number of players in cooperation and/or opposition^{5,6,9,10,16}, game field dimensions¹⁷⁻¹⁹,

number of touches on the ball per player²⁰, number and form of targets^{21, 22}, and practice distribution²³.

Interestingly, it appears that over the past few years the number of studies on SSCG of football has increased, including about the motor skill of passing (e.g.,²⁴⁻³³). The passing is the most often motor skill performed in the football game³⁴⁻³⁶. It refers to a motor skill of transferring, predominantly with the feet, the ball to a teammate. In addition to transferring ball possession, passing allows the creation and use of space during attack^{15, 34, 37, 38}.

Despite the significant number of studies on SSCG, the specific effects of task constraints on the passing motor skill remain fragmented across literature using diverse methodologies. A comprehensive synthesis focusing solely on passing performance, distinct from general tactical behaviour, is lacking. Therefore, this systematic review aimed to identify and synthesize the effects of SSCG on passing performance, specifically analyzing the influence of: (i) numerical configurations; (ii) participants' characteristics (age and expertise); and (iii) the assessment instruments used.

Methods

The literature review was based in the PRISMA statement for systematic reviews and meta-analyses, which consists of a checklist of 27 items and four different stages³⁹. The first stage involved the identification of the articles in English language in the databases by considering eighteen keywords related to the (i) pass or (ii) SSCG. They were: (i) “decision-making”; “interpersonal coordination”; “intrapersonal coordination”; “motor skills”; “pass”; “passing”; “specific motor skills”; “technical”; “technical performance”; (ii) “conditioned games”; “football game”; “small-sided games”; “soccer game”; “subsystems”; “task”; “task constraints”; “task manipulation”; “team sports”. All these keywords were used in articles on football passing and SSCG. The databases used were as follows: SciELO, Pubmed, Web of Science, Scopus, Lilacs and Google Scholar. The final search date for articles was April 30, 2024. The crossing of these two keywords groups (i and ii) resulted in 81 search combinations.

The second stage was screening, which involved the analysis of the titles and, when necessary, abstracts. Studies were excluded when they were not related to the aim of this systematic review or by duplication (same study founded in different databases). Additionally, review articles, book chapters, and conference abstracts were excluded to focus on original peer-reviewed research. Following that, eligibility was verified as the third stage. In this case, all articles were read *in totum*. Finally, articles were included in the systematic review (fourth stage). Data extraction was systematically performed to categorize key information: (i) study identification (author/year); (ii) participants' characteristics (level of expertise and age); (iii) SSCG protocols (e.g., number of players, rules, and field dimensions); and (iv) specific assessment instruments and passing metrics used. These stages are presented in Figure 1.

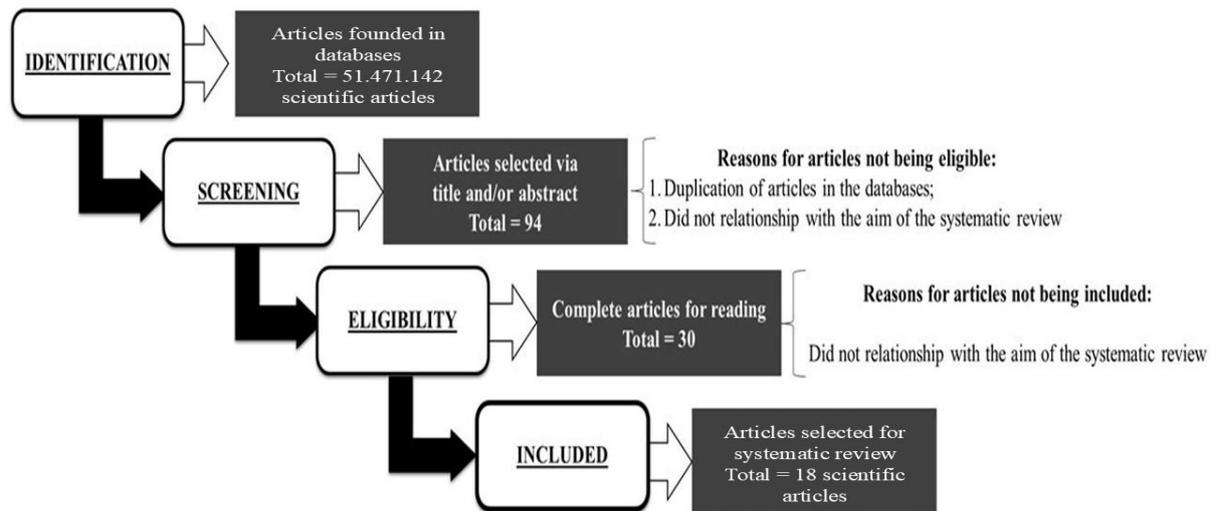


Figure 1. Flowchart of the systematic review, the four steps of selection and inclusion of the articles, and the reasons for exclusions. Source: Authors.

Results

This systematic review included 18 articles. Reporting a total of 34 SSCG (Table 1). They comprised: (i) those requiring ball possession or reaching a specific field zone, played without a goalkeeper; (ii) those involving a goalkeeper, with the primary objective of scoring goals; (iii) those featuring numerical superiority and/or inferiority scenarios; and (iv) those incorporating a floater player to introduce numerical inequality.

Table 1. SSCGs used in the revised articles

Authors (year)	SSCG	Description
Santos et al. (2017) ³³	2 versus (vs.) 1	2 attackers versus 1 defender; played to keep ball possession.
Dellal et al. (2011) ²⁰ ; Santos et al. (2017) ³³	2 vs. 2	2 attackers versus 2 defenders; played to keep ball possession.
Clemente et al. (2014) ²⁵	2 vs. 2 + 2 Outside Floater (OF)	2 attackers versus 2 defenders more 2 OF (i.e. players positioned on play field side lines, playing with team in ball possession); played to strike on goals smalls and/or reach an area on play field.
Memmert and Roth (2007) ⁸	2 + 2 vs. 3	4 attackers (2 positioned on defensive and 2 on offensive sector) versus 2 defenders (positioned on intermediate sector); played to make rupture passes to overtake the intermediate sector without interception by defenders.
Práxedes et al. (2018) ^{30, 31}	3 vs. 2	3 attackers versus 2 defenders; played to keep ball possession.
Práxedes et al. (2018) ^{30, 31} ; Dellal et al. (2011) ²⁰ ; Eniseler et al. (2017) ²⁶ ;	Goalkeeper (GK) + 3 vs. 2 + GK	3 attackers versus 2 defenders with GK in each team; played to strike on goal.
Memmert and Roth (2007) ⁸ ; Práxedes et al. (2018) ^{30, 31} ; Santos et al. (2017) ³³	3 vs. 3	3 attackers versus 3 defenders; played to keep ball possession.
Clemente et al. (2014) ²⁵	3 vs. 3 + 2 OF	3 attackers versus 3 defenders more 2 OF; played to strike on goals smalls and/or reach an area on play field.

Machado et al. (2019) ^{7,9} ; Owen et al. (2014) ²⁸	GK + 3 vs. 3 + GK	3 attackers versus 3 defenders with GK in each team; played to keep ball possession.
Práxedes et al. (2018) ³⁰⁻³¹ ; Práxedes et al. (2019) ¹⁰	GK + 3 vs. 3 + GK + 2 OF	3 attackers versus 3 defenders with GK in each team more 2 OF; played to strike on goal.
Machado et al. (2019) ⁷⁻⁹	GK + 3 vs. 3 + GK + 3 Inside Floater (IF)	3 attackers versus 3 defenders with GK in each team more 3 IF (i.e. players positioned on inside play field, playing with team in ball possession); played to strike on goal.
Práxedes et al. (2018) ^{30,31} ; Práxedes et al. (2018) ³⁰⁻³¹ ; Práxedes et al. (2019) ¹⁰	4 vs. 3	4 attackers versus 3 defenders; played to keep ball possession.
Torrents et al. (2016) ¹⁶	GK + 4 vs. 3 + GK	4 attackers versus 3 defenders with GK in each team; played to strike on goal.
Dellal et al. (2011) ²⁰ ; Práxedes et al. (2018) ³⁰⁻³¹ ; Práxedes et al. (2016) ²⁶ ; Sanchez-Sanchez et al. (2017) ³² ; Santos et al. (2017) ³³	4 vs. 4	4 attackers versus 4 defenders; played to keep ball possession.
Clemente et al. (2014) ²⁵	4 vs. 4 + 2 OF	4 attackers versus 4 defenders more 2 OF; played to strike on goals smalls and/or reach an area on play field.
Sanchez-Sanchez et al. (2017) ³²	4 vs. 4 + 2 IF	4 attackers versus 4 defenders more 2 IF; played to keep ball possession.
Práxedes et al. (2018) ³⁰⁻³¹	4 vs. 4 + 1 IF	4 attackers versus 4 defenders more 1 IF; played to keep ball possession.
Sanchez-Sanchez et al. (2017) ³²	4 vs. 4 + 2 IF + 2 OF	4 attackers versus 4 defenders more 2 IF and e 2 OF; played to keep ball possession.
Amatria et al. (2016) ²⁴ ; Machado et al. (2019) ⁷⁻⁹ ; Olthof et al. (2019) ⁶ ; Owen et al. (2014) ²⁸ ; Sanchez-Sanchez et al. (2017)	GK + 4 vs. 4 + GK	4 attackers versus 4 defenders with GK in each team; played to strike on goal.
Práxedes et al. (2018) ³⁰⁻³¹ ; Práxedes et al. (2019) ¹⁰	GK + 4 vs. 4 + GK + 1 IF	4 attackers versus 4 defenders with GK in each team more 1 IF; played to strike on goal.
Sanchez-Sanchez et al. (2017) ³²	GK + 4 vs. 4 + GK + 2 IF	4 attackers versus 4 defenders with GK in each team more 2 IF; played to strike on goal.
Sanchez-Sanchez et al. (2017) ³²	GK + 4 vs. 4 + GK + 2 IF + 2 OF	4 attackers versus 4 defenders with GK in each team more 2 IF and 2 OF; played to strike on goal.
Práxedes et al. (2018) ³⁰⁻³¹	5 vs. 4	5 attackers versus 4 defenders; played to keep ball possession.
Torrents et al. (2016) ¹⁶	GK + 5 vs. 4 + GK	5 attackers versus 4 defenders with GK in each team; played to strike on goal.
Caso and van der Kamp (2020) ²⁷ ; Práxedes et al. (2018) ³⁰⁻³¹ ; Santos et al. (2017) ³³	5 vs. 5	5 attackers versus 5 defenders; played to keep ball possession.
Práxedes et al. (2018) ³⁰⁻³¹ ; Práxedes et al. (2019) ¹⁰	5 vs. 5 + 1 IF	5 attackers versus 5 defenders more 1 IF; played to keep ball possession.
Oppici et al. (2018) ¹⁵ ; Owen et al. (2014) ²⁸	GK + 5 vs. 5 + GK	5 attackers versus 5 defenders with GK in each team; played to strike on goal.
Caso and van der Kamp (2020) ²⁷	6 vs. 6	6 attackers versus 6 defenders; played to keep ball possession.
Amatria et al. (2016) ²⁴ ; Olthof et al. (2019) ⁶ ; Owen et al. (2014) ²⁸	GK + 6 vs. 6 + GK	6 attackers versus 6 defenders with GK in each team; played to strike on goal.
Caso and van der Kamp (2020) ²⁷	7 vs. 7	7 attackers versus 7 defenders; played to keep ball possession.
Torrents et al. (2016) ¹⁶	GK + 7 vs. 4 + GK	7 attackers versus 4 defenders with GK in each team; played to strike on goal.

Amatria et al. (2016) ²⁴ ; Owen et al. (2014) ²⁸	GK + 7 vs. 7 + GK	7 attackers versus 7 defenders with GK in each team; played to strike on goal.
Olthof et al. (2019) ⁶ ; Owen et al. (2014) ²⁸	GK + 8 vs. 8 + GK	8 attackers versus 8 defenders with GK in each team; played to strike on goal.
Owen et al. (2014) ²⁸	GK + 9 vs. 9 + GK	9 attackers versus 9 defenders with GK in each team; played to strike on goal.

Note. SSCG: Small-Sided and Conditioned Games; vs.: versus; GK: Goalkeeper; OF: Outside Floater; IF: Inside Floater. Source: Authors.

Regarding the participants' characteristics, it was found that 52.9% of the articles had a sample with amateur football players^{20, 24-26, 28-32}, and in 17.6% the sample comprised beginner football players^{7,8}. Moreover, 11.8% of the articles had beginner football players who were experienced in futsal^{25, 27, 36}; 11.8 % involved a sample of amateur and professional football players^{20, 16}, and only 5.9% of the articles had only professional football players^{27, 28}.

Concerning the assessment instruments (Table 2), 8 observational analysis tools were found in 11 articles, while 7 articles used notational analysis. Only one article assessed the performance of the pass without opposition²⁶. Moreover, only one article used a visual search instrument (mobile eye tracking system) to analyze the location of the players' eyes before reception the ball and during the execution of the pass¹⁵.

Table 2. Participants characteristics and instruments used to access the passing performance

Authors (year)	Instruments to access the passing performance
Amatria et al. (2016) ²⁴	Football Observation System to access the passing among other variables
Caso and van der Kamp (2020) ²⁷	Video-footage analysis was used to access 3555 soccer actions on the ball and without the ball.
Clemente et al. (2014) ²⁵	Team Sport Assessment Procedure to access the following performance indices: ball attack indices (BAI) = successful passes and strike to the goal; efficiency indices (EI) = BAI / number of balls lost plus 10
Dellal et al. (2011) ²⁰	Notational analysis of the passing
Eniseler et al. (2017) ²⁶	Loughborough Soccer Passing Test: to hit four static targets in the shortest possible time in a total of 16 passing attempts
Machado et al. (2019) ⁷	Offensive sequences characterization system (OSCS) to access the passing among other variables
Machado et al. (2019) ⁹	OSCS
Memmert and Roth (2007) ⁸	Game Test Situation – Identification of gaps (scale from 1 to 10 points; arbitrary unit) to access the passing decision-making
Olthof et al. (2019) ⁶	Notational analysis of the passing
Oppici et al. (2018) ¹⁵	Mobile Eye Tracking System to access the visual search of the players.
Owen et al. (2014) ²⁸	Notational analysis of the passing
Práxedes et al. (2016) ²⁹	Game Performance Evaluation Tool (GPET) to access the passing decision-making and execution
Práxedes et al. (2018) ³⁰	GPET
Práxedes et al. (2018) ³¹	GPET
Práxedes et al. (2019) ¹⁰	GPET
Sanchez-Sanchez et al. (2017) ³²	Notational analysis of the passing
Santos et al. (2017) ³³	Creative Behavior Assessment in Team Sports to access the passing error, attempt, fluency, versatility, and originality.
Torrents et al. (2016) ¹⁶	Notational analysis of the passing.

Note. GPET: Game Performance Evaluation Tool; OSCS: Offensive Sequences Characterization System; BAI: Ball Attack Indices; EI: Efficiency Indices. Source: Authors.

In relation to the measures of passing performance, 47.1% of the articles accessed the level of success in decision-making and performance, including metrics such as the total number of ball touches per player during the match and the quantity of successful passes completed by the players^{7,15,29-32,37}; 17.6% considered only the numbers of passing^{6,16}; 17.6% accessed only the level of successful in passes^{20,26,28}; 11.8% of the articles accessed the number and level of successful pass^{24,25}; and, 5.9% of the articles accessed only the level of successful decision-making of passing⁸.

Regarding the findings, articles showed that:

a) SSCG were more effective on the improvement of passing performance than the decontextualized drills^{26,29,30};

b) SSCG of other team sports (e.g., hockey and futsal) made possible the transfer for decision-making and performance of football passing^{8,15};

c) while SSCG involving offensive numerical superiority improved the decision-making and performance of passing, SSCG comprised by offensive numerical inferiority decreased the number of passes^{7,16,25,30-32};

d) SSCG involving numerical equality only improved the passing performance in GK + 6 vs. 6 + GK situations when compared to GK + 7 vs. 7 + GK and 3 vs. 3 in a long-term intervention^{20,24,26,28,32};

e) the smaller the number of players in SSCG, the greater the number of passes and the better the performance^{7,16,28};

f) the difficulty and complexity levels of the SSCG, associated with the players' chronological age and tactical performance affected the passing performance^{7,8,28}. Specifically: (i) in the easier SSCG there was more successful passes and less touch the ball before passing than in difficult SSCG; (ii) players with higher tactical performance touched less the ball before passing during difficult SSCG by considering players with smaller tactical performance and easier SSCG; (iii) younger players (U-15) performed more touches on the ball and more passes during a GK + 4 vs. 4 + GK situation than in a GK + 3 vs. 3 + GK situation, while older players (U-17) had a longer ball possession, performed more touches on the ball and more passes in a GK + 3 vs. 3 + GK than in a GK + 4 vs. 4 + GK one⁸.

Discussion

The aim of this research was to conduct a systematic review on small-sided and conditioned games (SSCG) applied to football passing. Specifically, it sought to identify the effects of SSCG on the passing performance regarding the participants' characteristics, the assessment instruments and the measures of passing. Results showed that SSCG were more effective on passing performance than decontextualized drills^{26,29,30}. This result provides support for the propositions about the pedagogical potential of the SSCG on the improvement of passing performance. In this case, SSCG have allowed proximity to the game environment in a way that the interactions between the players were preserved^{4,32}. As we wrote previously, the choice of decontextualized tasks has been recognized as one of the main mistakes of coaches and teachers when handling task complexity^{11,12}. To avoid this, two aspects are important to create a SSCG learning environment that reflects the football game: attunement and calibration.

Attunement refers to the players' ability to perceptually tune into the information emerging from the performance environment. Calibration, in turn, is the players' capacity to scale the perceived information according to their own action capabilities^{4,45,46}. For example, to execute a pass, players must process multiple sources of information from the performance environment – even before receiving the ball – in order to select the most suitable affordance (i.e., opportunities for action)^{15,42,47,48}.

Results also showed that benefits of SSCG are transferable, since those gains from hockey and futsal implied gains related to the passing performance in the sport of football^{8,15}. This transfer is attributed to the similar characteristics between team sports in relation to the structure and function^{32,45,49}. In fact, it has been proposed that general and operational principles are similar and consist of action rules that guide players in solving the tactical and technical problems of games^{1,50,51}. General principles refer to the number of players near to the ball acting for creating numerical superiority, avoiding numerical equality, and not allowing numerical inferiority^{1,50}. In turn, operational principles consist of collective actions of attacking and defending^{50,51}. According to the action fidelity, the transfer occurs through performance goals (e.g. passing to the teammate), without “ideal” and rigid action patterns^{32,49,52}.

Concerning the third and fourth results, they showed that the manipulation of the numerical relations in SSCG affected the passing performance. When attacking was under numerical superiority there was an increase of decision-making and passing performance. On the other hand, when attacking was in numerical inferiority the number of passing decreased^{7,16,25,30-32}. In addition, situations involving numerical equality only improved the passing performance in GK + 6 vs. 6 + GK situations when compared to GK + 7 vs. 7 + GK and 3 vs. 3, considering a long-term intervention^{20,24,26,28,32}. Regarding the numerical superiority and inferiority results, these effects may be attributable to the differentials in passing opportunities versus intercepting possibilities. Specifically, superior numbers create more passing lanes between the ball carrier and teammates, while inferior numbers result in fewer passing options compared to the intercepting lanes available to defenders^{42,49,52}. In relation to the numerical equality results, effects were observed only on the passing performance practiced in an intermediate situation (GK + 6 vs. 6 + GK). Similar to passing performance in futsal, this intermediate situation may function as a zone of self-organized criticality where specific stimuli (e.g., SSCG training) can induce changes in passing performance⁴².

Regarding the fifth result, it was found that the smaller the number of players, the greater the number of passes and the better the passing performance^{6,8,28}. This indicates the importance of reducing task complexity during the teaching, learning, and training of passing skills. Evidently, with fewer players, there are greater opportunities to receive and execute passes.

It was also revealed that practice of easier SSCG resulted in a greater number of successful passes and smaller number of touching the ball before passing performance⁷. On this regard, the easier SSCG provided higher space and time for performing a passing, which allowed players to explore the performance environment during on-ball possession. To perform a pass, players need to be tuned to the performance environment through exploratory behaviors^{4,42,47,50}. Exploratory behaviors are movements of eye, head and body that support the capture of visual information from the performance environment^{48,49,51}.

Concerning the sixth result, that players with superior levels of tactical performance performed fewer amounts of touching the ball before passing performance during the more difficult SSCG⁷, this result is attributed to the visual search. That is, experienced football players explore more visually the teammates, opponents, and football field than those not experienced players. The latter tend to focus more on the ball and the nearest opponent^{52,53}. In this way, football players with a higher level of tactical performance may have already scanned the performance environment before receiving the ball, allowing them to know where to direct it upon reception and thus reducing their contact time with it^{15,50}.

Also, results showed that while younger players (U-15) performed a greater number of ball touches and passes in the GK + 4 vs. 4 + GK compared to the GK + 3 vs. 3 + GK situation, older players (U-17) had longer ball possession time, performed a greater number of ball touches and passes in the GK + 3 vs. 3 + GK compared to the GK + 4 vs. 4 + GK situation⁷. Players' age influenced the way they engaged with the SSCG. Younger players needed more

time in complex SSCG to identify passing affordances, while older players could perceive them before receiving the ball^{15, 50}.

Two other results called attention to this discussion. First, results showed that all revised articles used notational analysis with arbitrary scales or scores for accessing decision-making and/or performance outcome in SSCG. No article used complementary measures such as relative angles^{5, 42, 47, 48, 49}; number of opponents, occupied area during passing performance⁴²; distance and velocity of the pass^{35, 41, 42, 49}, among others. This should be considered in future studies.

Second, results revealed that only slightly more than half of the studies used SSCG without a goalkeeper. As we wrote previously, teaching-learning and training of specific motor skills need be guided by representative tasks to guarantee the constraints inherent to the performance environment^{4, 49, 52}. However, how the presence/absence of the goalkeeper in SSCG affects the passing performance was not clarified by this set of articles. Therefore, this aspect also should be considered in further studies.

Conclusion

In conclusion, the findings of this review reinforce the effectiveness of SSCG in enhancing passing performance in football, particularly when compared to decontextualized drills. Importantly, the benefits of SSCG are transferable across team sports, supporting the idea of shared tactical and technical principles that underlie game-based learning. Moreover, manipulating numerical relations - whether through superiority, inferiority, or equality - emerged as a crucial factor in shaping passing behavior, offering coaches a strategic tool to scaffold learning environments. Reducing the number of players also proved beneficial by increasing opportunities to engage in passing actions, especially under less complex conditions.

Additionally, the outcomes of SSCG were influenced by players' age and tactical skill level, highlighting the need to tailor practice tasks according to individual and developmental characteristics. Notably, more experienced or older players displayed greater efficiency, driven by advanced perceptual-cognitive skills such as exploratory behavior and visual scanning. However, limitations in the methodologies used - such as reliance on arbitrary notational analyses and the lack of complementary performance indicators - suggest the need for more ecologically valid assessment tools in future research. Similarly, the influence of the goalkeeper in SSCG contexts remains under-investigated, pointing to another gap.

Overall, this review underscores the pedagogical value of SSCG as a representative, adaptable, and developmentally appropriate approach for fostering perceptual attunement, tactical awareness, and passing performance in football. Future studies should continue exploring the nuanced interactions between task constraints, individual characteristics, and performance outcomes to refine our understanding of how best to optimize learning through game-based practice.

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