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Abstract

Aim: Our aim in this scoping review was to investigate the existing literature on the area of playful soccer, which refers to play within organized and unorganized contexts

Method: Following JBI guidelines we identified 1801 publications of which 33 were included in the analysis, extracted from Scopus, APA, SPORTDiscus and ProQuest.

Findings: Our current review shows three main themes: 1) playful soccer often leads to the development of soccer-specific skills, 2) play from a purist view was examined in most publications as a means of acquiring soccer-relevant skills, and 3) the theoretical and methodological frameworks were generally repetitive.

Conclusion: In general the research is repetitive in various ways and a greater variety of views of play, application of play, and study designs and measurements are needed to cover the gaps in the research. ,

Keywords: playful soccer, play, soccer, scoping review, organized play, unorganized play, elite soccer, grassroots soccer, view of play

Introduction

Play is part of humanity as a way to embrace the world and a space where the child can experience development (Sommer, 2020). However, the abilities and circumstances that allow a child to play in the present society have changed (Sommer, 2020). Play is deprioritized in society by politicians in every chance possible, pushing learning and performance forward as more critical for children, and the daily routines reflect less focus and time on playing than before (Sommer, 2020). Even though the benefits of physical activity are widely known, there seems to be a decline in the amount of physical activity and physical play (Tremblay et al., 2015). As the *Value of Play Rapport* by LEGO (2018) states, the time parents use on work describes the circumstances degrading the time and opportunities for play, which leaves less time to spend with their children. The LEGO (2018) rapport is concerned about the following circumstances that put pressure on a childhood usually meant to be full of play and freedom: Children will spend their 'playtime' on time-consuming activities with electronic devices, such as TV, computer, tablet, etc., which parents often use as a replacement for attention towards their children at an early stage of the childhood (LEGO, 2018; Sommer, 2020). Even though there seems to be an uneven distribution LEGO (2018) states the balance between play and learning is important.

Performance culture

In institutions, schools, preschools, etc., the focus is turned toward learning as well (Sommer 2020). This enhanced focus affects the children. Sahlberg & Doyle (2019) states that the government knows little or zero about the balance of play and learning in childhood and how it affects learning and creativity. Furthermore, Robinson (2001) claims that creativity can be as valuable as learning when evolving society and reaching a certain level of intelligence and competence, which all comes from playing. This cultural pressure creates a focus on success and performance, generating a desire for acceptance from others (Sommer 2020). This pressure can develop a feeling of insecurity, doubt, and a need for validation from others. Peter Gray (2011) discusses a possible casualty between the lack of play in childhood today and the development of anxiety, stress, depression, lower self-control, etc. The expectations from society can occasionally be so high that they will be unattainable for most, which leaves people with the feeling of not being good enough. This feeling may cause similar psychological consequences, according to Gray (2011).

Performance culture in sports

Sports culture also focuses on performance. In a review by Mathias Haugaasen & Geir Jordet (2012) they were approaching the previous dominating way to achieve expertise in sports in general and further concerning soccer in a critical way. This way to expertise was suggested by Karl Ericsson et al. (1993), who define ‘*deliberate practice*’ as an efficient way to expert performance in sports, where obligation, intensity, concentration, and effort are essential to excel. Furthermore, Ericsson et al. (1993) suggest, to reach expertise in sports, deliberate practice must be done for the amount of 10.000 hours or 10 years, which requires an early specialization to peak. However, the conditions are less narrow in soccer compared to other sports, due to the timeframe in general and the moment of peaking, which has a greater timespan (Besson et al., 2011; Malina, 2011; Baker & Côté, 2006). Due to the fact, that a soccer career can last for a longer time, more than 20 years, this statement is a contradiction to the need for early specialization (Besson et al., 2011; Malina, 2011; Baker & Côté, 2006). Furthermore, this stresses the necessity of the creation of a soccer environment, where players are constantly motivated to ensure ongoing participation and skill enhancement (Williams & Reilly, 2000).

As an opponent to deliberate practice, Jean Côté (1999) suggests ‘*deliberate play*’, which is monitored by the children itself for the sake of fun and enjoyment (Berry et al., 2008). According to Côté (1999), a more significant amount of play in combination with practice can lead to an elite level in sports besides having other possible outcomes as increased enjoyment and health.

Let alone the pressure from society on a great performance, Erdal (2019) states how the coach, as well as the parents, dominate the performance-oriented behavior among children in sports contexts. The coaches and the parents both play an equal role in allowing less autonomy, creativity, and morale to the kids because they focus on their wishes and premises, which leads to a majority of practice for the children (Erdal, 2019). This leaves no room for play for the sake of enjoyment in sports.

Performance culture in soccer

The soccer culture focuses on early specialization and performance and deprioritizes deliberate play too. The focus lies within developing and selecting soccer talents at an earlier and earlier age (Williams & Reilly, 2000). Soccer talents are selected based on physiological, psychological, social, and technical factors.

Besides, the play brings advantages in itself that can be relevant in a soccer environment. For instance, creativity is enhanced through imaginative play and exploring the unknown (Gordon, 2009; Hirsh-Pasek, 2009; Vygotsky, 1978) as well as seeing possibilities instead of limitations (Groos, 1899). Furthermore, play enhances social and soccer-specific physical skills such as balance, speed, acceleration, endurance, strength, and coordination (Côté et al. 2007; Piaget, 1962; Groos, 1899). In defining and selecting talents in soccer, five main factors seem crucial: physiological, psychological, social, technical, and tactical (Williams & Reilly, 2000). About the previous understanding of reaching expertise level in soccer, it was believed, that these aspects would be achieved only through ‘*deliberate practice*’ (Ericsson et al., 1993; Haugaasen & Jordet, 2012), but research has shown, that play in combination with soccer can be more beneficial due to enhancement of enjoyment, motivation, and commitment, as well as the different demands to be a great soccer player, which all are crucial elements in the soccer environment (Côté et al. 1999; Haugaasen & Jordet, 2012).

Soccer seems mainly related to two different contexts: organized and unorganized. Organized soccer refers to club soccer, where a coach often dictates the practice, and there are specific rules (FIFA, 2022). There is limited freedom and opportunity to make creative decisions for the players, and there is, in most cases, a goal of achieving better performance (Haugaasen & Jordet, 2012; Stølen et al. 2005; Barreiro & Howard, 2017).

On the other hand, unorganized soccer mainly exists in schoolyards during recess or in children's spare time, where the children choose to play for fun and enjoyment. Studies have shown that soccer often is a popular game during children's, especially boys, recess and playtime (Martinez-Andrés et al., 2017; Pearce & Bailey, 2011; Winther-Lindqvist, 2013). In addition, soccer is stated as a popular sporting activity, which is easy for most people to play, when not in a club, during their spare time, where the most time will be spent on play anyway. (Haugaasen & Jordet, 2012; FIFA, 2022) The fact that soccer is a popular playful activity among children all around the world shows a special quality about the game that needs to be investigated. There are often no other goals attached to unorganized soccer than the opportunity to play for its own sake, which enhances creativity and the opportunity to explore. (Eichberg, 2014; Haugaasen & Jordet, 2012; Stølen et al. 2005; Barreiro & Howard, 2017.) In the unorganized context, the children control the soccer game, and play as an ‘end’ in itself.

This study will investigate the use of play and the matter of play in organized and unorganized soccer contexts. The term '*Playful Soccer*' will contain play in both of these soccer contexts forward in this scoping review.

View of play

Because of its complexity, the term play can be observed and analyzed from two different views; 1) the '*Didactic view*', which acknowledges play as a '*means*' to a purpose, often learning, and 2) the '*Puristic view*', which acknowledges play as a goal or '*end*' in itself. Some definitions of play are puristic, and some are didactic. We recognize play based on Dion Sommers's (2020) understanding. Though, he claims a problem with these views, namely that if he recognizes one view, it forces him involuntarily to deprive the other, which necessarily renounces large amounts of knowledge. In an attempt to solve this problem, Sommer acknowledges both views as complementary why he legitimizes the inclusion of both views. According to Sommer, it is important to keep both views in mind to understand play in its entity. This complementary way of thinking is crucial to Sommer's understanding of play and, therefore, crucial to our understanding. (Sommer, 2020)

The linkage between soccer and play

The focus on performance and expertise dominates society (Sommer, 2020) and soccer (Haugaasen & Jordet, 2012). Nevertheless, this approach is questioned by Haugaasen & Jordet (2012), since most studies focus on the performance of youth athletes and not elite athletes who have had longer careers. As stated earlier, the circumstances in soccer allow the growth of talent for around 20 years, which emphasizes the importance of an environment motivating players for commitment. According to Côté (1999), '*deliberate play*' can affect this motivation. Play is an opportunity to break with the existing culture of expertise performance, and enhance the level of enjoyment, confidence, autonomy and creativity (LEGO, 2016; LEGO, 2018; Sommer, (2020) and LEGO (2018) outlines how children should be able to affect their learning.

Different outcomes of playful soccer align with the requirements of excelling in soccer such as speed, balance, precision, and strength (Krustrup & Parnell, 2020; Oja et al., 2015; Huijgen et al., 2010; Huijgen et al., 2013). This means, playful soccer would create possible enhancement in soccer performance, which underlies the importance of research in this area. This would benefit stakeholders and coaches in federations and soccer clubs in the

incorporation of playful soccer in organized practice to ensure the creation of a balance between play and practice and maintenance as well (Erdal, 2019). Soccer is known to be a popular sport in organized as well as unorganized settings (Eichberg, 2014; DBU, 2022). Only numbers in organized soccer are available, which means there have to be plenty who plays unorganized in parks, school grounds, playgrounds, streets, backyards, etc. too. Besides, the game is accessible to everyone due to the low demands of equipment and universal rules (FIFA, 2022). This makes it an interesting theme for further research because there might be a special culture concerning playful soccer.

Further, playful soccer can affect different benefits of health such as the prevention of type 2 diabetes, cardiovascular diseases, osteoporosis, and improvement of postural stability to prevent falls that can cause damage to the bones (Krustrup & Parnell, 2020). Besides, there is a general improvement of physical, psychological, and social health improvements (Côté, et al. 2007; WHO, 2022). These acknowledgments support the importance and necessity of investigating the field of playful soccer to improve health as an interest of society.

Against this background, the purpose of this scoping review is to examine the existing research in playful soccer, which soccer contexts are investigated, and what skills and advantages there are. For this purpose the research question was formulated as follows: What is the existing research in the area of playful soccer, which contains play in organized and unorganized soccer? On that account, this paper seeks to:

1. Detect the results of the research literature investigating playful soccer.
2. Locate understanding and use of play, study designs, skills and advantages acquired, and soccer contexts in the included publications.
3. Identifying knowledge gaps, limitations, and remaining scientific challenges.

Method

This scoping review examines the nature and extent of the existing research literature on playful soccer to identify possible patterns as well as areas not yet investigated. We were following the method and an a priori protocol suggested by the Joanna Briggs Institute JBI,, which was applied to ensure the proper methodological approach. Further, we followed the PRISMA-ScR-checklist as well (2018), which shows the progress from a broader perspective, and lastly, we used the PRISMA Flowchart (Tricco et al., 2016) to display the different screening results to create transparency (figure 1).

We chose a scoping review as appropriate to answer the research question in this paper as it allowed a more comprehensive overview of the current views on playful soccer, which was valued to be a vast field of interest. In the preparation of the literature search, we allied ourselves with a librarian from Aalborg University, which JBI (årstal) highly recommends. She helped us through all the methodological phases.

Inclusion and exclusion criteria

In this paper, we used the PCC model for detecting inclusion and exclusion criteria, which means we categorized the criteria into types of **P**articipants, **C**oncept, and **C**ontext (JBI, 2015). The participants of interest were all kinds of people involved in playful soccer. The concept is the phenomenon of interest, study design, or outcome, which in this paper was playful soccer. As long as the study investigated this area, study design, outcomes, etc. weren't important for the criteria. Lastly, the context of interest was both organized and unorganized soccer, as long as the soccer was playful. Exclusion criteria were people who played soccer videogames and imaginary scenarios of playful soccer in the future.

The included types of literature were limited to scientific papers without any further limitations and books published. We only included English literature, as it was one of our preferences in terms of language, and translation of papers written in other languages would be too time-consuming. Because of time limitations, we deprioritized the inclusion of grey literature and a search of references, excluding possible relevant literature.

Search criteria

To discover the different words for inclusion in our PCC model, we used a baseline of keywords from a previous scoping review about playful soccer, which was never published. The first step was an initial search for establishing the intended direction of the keywords

used in the searches by testing Thesauri for all databases. This was done to figure out which keywords are most efficient to use in the individual databases, to get relevant results. This process was done in 24 sport-related databases resulting in 21 keywords related to soccer and 22 related to play, which we used for our pilot searches in the same 24 databases.

Pilot searches and final searches

The purpose of these searches was to; a) determine appropriate databases for our intentions, b) adapt the keywords to control the searches and avoid too many irrelevant publications while minimizing the risk of missing any relevant publications, and; c) determine if a search in All Fields, TI/AB or TI/AB/Keywords were appropriate according to the database.

The search consisted of two blocks: one involving play-themed keywords and one involving soccer-themed keywords. They were used in separate searches and a combined search. Using the word 'play' and 'play*' gave too many inappropriate results. Instead '*play*' was incorporated with other terms e.g. '*Deliberate play*', which gave a more proper search result.

The databases used in the final search were Scopus, SPORTDiscus, ProQuest (Sports Medicine & Education Index), and APA PsycINFO. The final search string used in all the mentioned databases was:

("Ball game" OR "Ball games" OR "Ball sport" OR "Ball sports" OR "Children sport" OR "Children sports" OR "Childrens sport" OR "Childrens sports" OR "Club sport" OR "Club sports" OR "European football" OR "Football" OR "Organized youth sport" OR "Organized youth sports" OR "Soccer" OR "Team ball sport" OR "Team ball sports" OR "Team sport" OR "Team sports" OR "Youth sport" OR "Youth sports")

AND

("Childhood play behavior" OR "Childhood play development" OR "Children play" OR "Childrens play" OR "Creative play" OR "Deliberate play" OR "Fantasy play" OR "Free play" OR "Leisure play" OR "Make believe play" OR "Play activities" OR "Play activity" OR "Play and playthings" OR "Play and practice" OR "playfulness" OR "Recreation" OR "Recreational play" OR "Sport-specific play" OR "Structured play" OR "Unstructured play").

Finally, all publications were put into the reference program Zotero for detecting duplicates.

Screening

The screening was conducted in the application Rayyan, which allows a separate blinded screening and afterward enables a collaborative non-blinded dialogue about the selections. If any further disagreement or doubt occurred, our supervisor would assist as a third part in making a final choice. This way of screening is recommended by JBI (Kilde).

At first, we screened titles and abstracts to secure eligibility against the inclusion criteria before screening the full texts. We screened the full texts in two rounds before finally accepting them; firstly a search for keywords and secondly a more careful perusal.

From the 1,797 hits included in Rayyan immediate access was gained to 1,761 hits, while 29 hits were ordered and received from different libraries. 7 hits remained inaccessible, see flow-chart.

Data charting and synthesis

In this scoping review we wanted to display the following results concerning our theoretical interest: author, year of publication, the definition of play, view of play, application of play due to '*means*' or '*end*', skills and advantages of playful soccer, and soccer context. Regarding the methodological framework, we displayed: the study design, measurements, and soccer level.

These results are presented as descriptive and quantitative with the frequency of the different interests. To analyze the data related to definitions and views of play, a priori theoretical framework was made with Sommers's understanding of play as a stepping stone (see appendix 1). Besides the views of play presented by Sommer, we established a third view '*Purist/Didactician*', because certain definitions contained statements of both views. This allowed the different elements related to play from the separate views to complement each other and was done to ensure the ability to embrace the perplexity there seems to be in defining play.

Results

After searching the databases, 2643 publications were identified, and in addition, four were identified through other sources. Of these, 846 duplicates were identified and removed. The following 1801 were screened for the title and abstract, and 139 were included for the full-text screening. Of these, 106 were excluded as they did not meet the inclusion criteria. We ended up with 33 publications included in this review. All this appears in the flowchart (Figure 1).

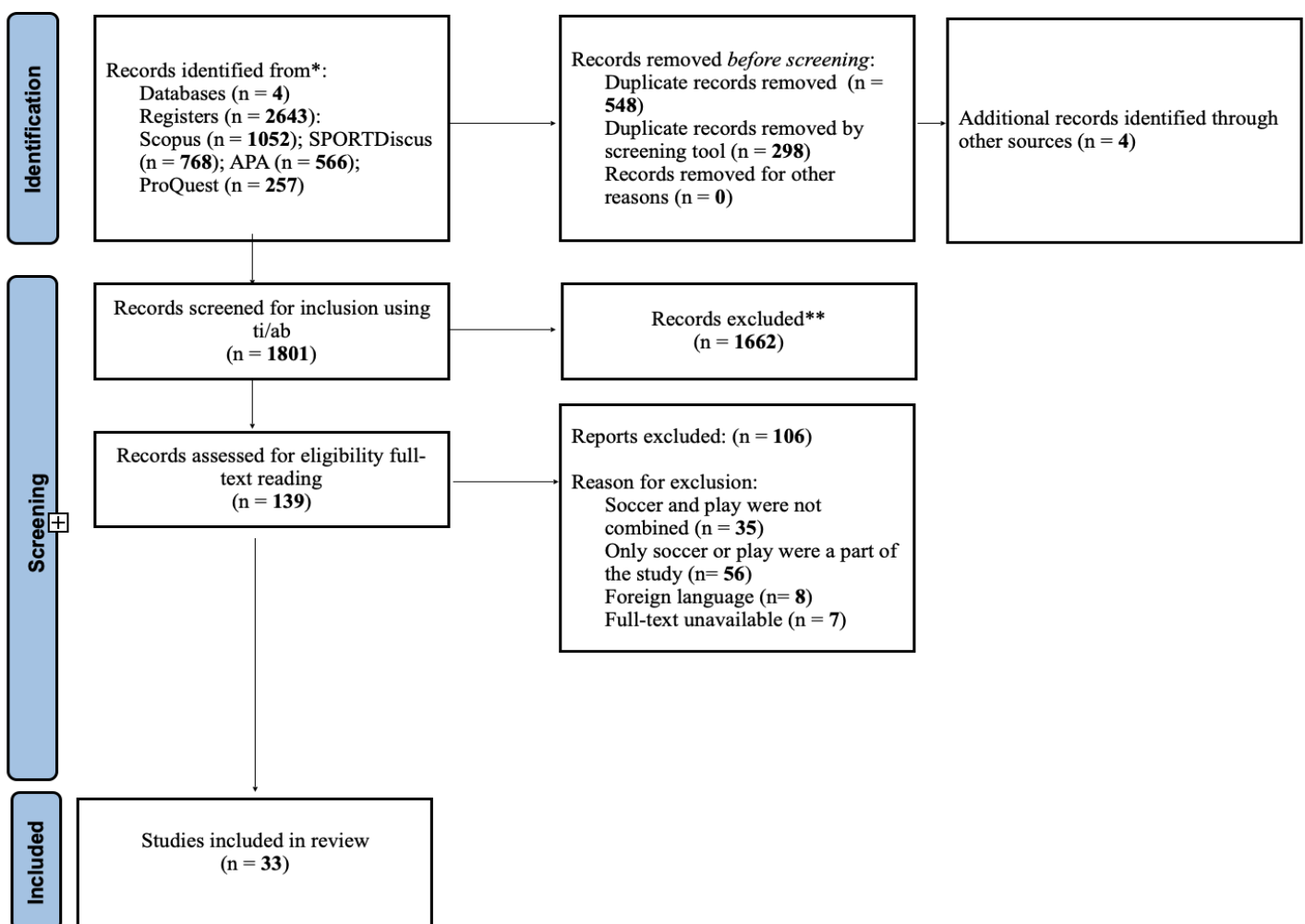


Figure 1: Flowchart

Figure 2 shows the frequency of publications each year. In other words, it gives an overview of when the literature has been published and the number of publications published each year. The figure describes the period from 1990, when the earliest included publications was published until today.

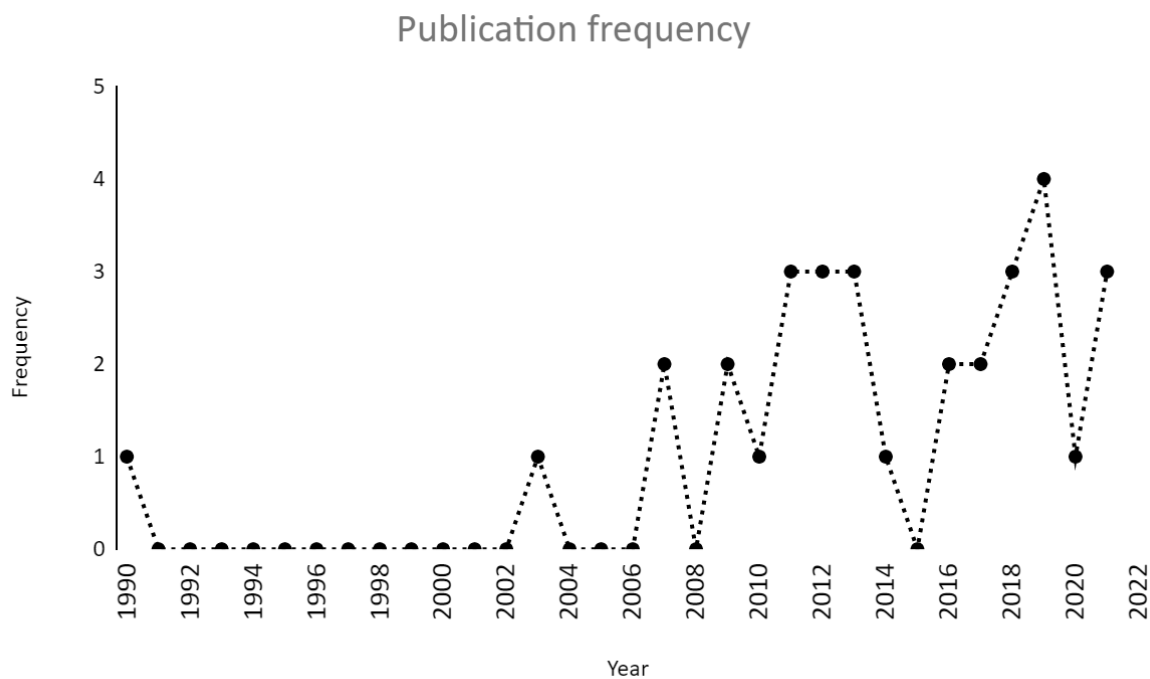


Figure 2: Publication frequency of the included publications

The figure shows that within the past 15 years, the literature has been published at regular intervals. Especially from 2009 until today, there has not been a year in which no literature was published. 28 of 33 publications were published within the last 12 years, which is 75%, which indicates that the research on playful soccer is relatively new.

Tables 1b, 2b, 3b, and 4b are frequency tables, in which n = the total number of the given characteristic distributed among the publications, and % = the percentage of studies. For example, in table 9 under "Play theorist - Provided" $n = 41$ (28), which means that 41 play theorists have been identified in 28 publications. It should be mentioned here that the number 41 includes the same theorist mentioned in several studies, so for instance Côté et al. definition is used in 20 publications, why $n = 20$. % = 84.85 which means that 84.85% of the studies apply a theory.

The result shows that 29 studies (87.88%) have defined play, while the remaining 4 (12.12%) haven't. Out of the 87.88% of definitions, it has been possible to link one or more

theorists to 84.85% of them (Table x). The majority of the studies have used Côté et al.'s definition of play (60,61%), which has a puristic view of play, because it focuses on play for the sake of fun, enjoyment, and play in itself (See table 1.1 and 1.2). In total 26 studies (78.79%) used a puristic view of play. In contradiction, a didactic view of play was used in 9,09% of studies. 6.06% used Pellegrini's definition, where the view of play couldn't be determined, why it was categorized as 'neither-or' (Forsmann, 2016; Jarvis, 2007; Knowles et al., 2013; Winther-Linqvist, 2013). Furthermore, the puristic/didactic view was used 5 times across 12,12% of the studies (e.g. Barez, 2011; Bernstein & Magelhaes, 2009). 15.15% did not indicate which theorist they used and the view of play could be determined in a total of 40 out of 44 cases. Regarding the way playful soccer was investigated in the studies, 75.76% investigate playful soccer as a '*means*' to achieve something (e.g. Baker et al. 2019; Erikstad et al., 2018; Erikstad et al., 2021; Forsman, 2016), and 24.24% investigated it as an '*end*', where playful soccer is a goal in itself (e.g. Bernstein & Magelhaes, 2009; Blatchford et al., 1990; Blatchford et al., 2003).

Table 1a: Definition of play, view of play and play as a means or an end

Author(s)	Play theory (Definition of play)	Theorist(s)	View og play	Play as a means or an end
Baker et al. (2019)	Sport-specific free play (i.e., unstructured game play, game play, free play, play) encourages spontaneity, freedom from emotional, social, and intellectual constraints, and the ability to participate in creative self-expression.	Charlesworth, Thorpe	Purist; Purist	Mean
Barez (2011)	Unstructured play is important for the children to have fun playing the game, to be creative, and stay motivated. Play helps the children build a foundation of motor skills	NONE	Purist/Didactician	Mean
Bernstein & Magalhaes (2009)	Play is whatever children see as play, and as any spontaneous activity children engage in to enjoy and to occupy themselves. Play is intrinsically motivated, internally controlled, focused on a process rather than an outcome, and has freedom to suspend reality. Play is essential for optimal development and in fostering physical, cognitive, emotional, and social well-being. Play is recognized to be universal in nature, but influenced by its cultural context.	Bundy, Rigby & Rodger, OUNHCHR*, Burdette & Whitaker, Scarlett et al.; Ramugondo	Purist; Purist; Didactician; Purist/Didactician; Purist/Didactician	End
Blatchford et al. (2003)	NONE	NONE	NONE	End
Blatchford et al. (1990)	NONE	NONE	NONE	End
Erikstad et al. (2018)	Play is initiated by the children themselves, represents contexts in which children can be creative and try new skills that they might not have dared to try under adult-led practice	Sagar & Lavallee	Purist	Mean
Erikstad et al. (2021)	Deliberate play is informal sports participation. It is highly enjoyable, undertaken for the aim of inherent enjoyment, and designed or supervised by the participants themselves	Côté et al.	Purist	Mean
Ford et al. (2009)	Deliberate play is engaged in by individuals for the purposes of enjoyment and has rules adapted from adult norms that are set-up and monitored by the children themselves or an adult involved in the activity	Côté et al.	Purist	Mean
Ford et al. (2012)	Play is usually informal and self-directed activity engaged in with the intention of fun and enjoyment	Côté et al.	Purist	Mean
Ford & Williams (2011)	Deliberate play qua DMSP-model	Côté et al.	Purist	Mean
Ford & Williams (2013)	Play is informal activity engaged in with the primary aim of fun and enjoyment, such as street or playground soccer.	Côté et al.	Purist	Mean
Forsman et al. (2016)	Sport-specific play was defined as sport-specific play undertaken alone or with friends, which resulted in informal practice of skills and tactical behaviors.	Côté et al.	Purist	Mean
Güllich et al. (2017)	Deliberate play qua DMSP-model	Côté et al.	Purist	Mean
Güllich et al. (2020)	Deliberate play refers to the involvement in informal sports participation with peers. It is highly enjoyable, undertaken for the aim of inherent enjoyment, and designed or supervised by the participants themselves.	Côté et al.	Purist	Mean
Haugaasen & Jordet (2012)	Deliberate play qua DMSP-model	Côté et al.	Purist	Mean
Hendry & Hodges (2018)	Play is unorganized, self-led soccer activities conducted without a coach (including fun games, general kick around or individual play/practice).	Côté et al.	Purist	Mean
Hendry et al. (2014)	Play is unorganised, self-led activities that are not conducted with a coach/teacher. These activities would include individual play or practice, unsupervised games or a general kick around.	Côté et al.	Purist	Mean
Hendry et al. (2019)**	Deliberate play is unorganized, self-led, sporting activities that are not conducted with a coach/teacher	Côté et al.	Purist	Mean
Hendry et al. (2019)*	Play comprises unstructured, peer-led sport-specific activities, engaged for the primary purpose of enjoyment	Côté et al.	Purist	Mean
Hornig et al. (2016)	Peer-led sporting leisure play ("deliberate play")	Côté et al.	Purist	Mean

* = Office of the United Nations High Commissioner for Human Rights

Jarvis (2007)	Rough and tumble play has been defined as a physically vigorous set of behaviours, such as chase, jump and play fight, accompanied by positive affect from the players towards one another	Pellegrini	Neither-or	End
Kentel & Dobson (2007)	Play carries the sense of freedom of movement. Gambol in this context refers to unstructured movement. This is the sort of play that has long been deemed beneficial in childhood learning. Caillouis associates free play with the Greek term paidia (children), and structured organized play with the Latin word ludus (sport or public)	Caillouis; Vygotksy; Csikszentmihalyi	Purist; Purist; Purist	End
Knowles et al. (2013)	Play is the behaviours and activities that children engage in during childhood. Play is multidimensional, consisting of behavioural, motivational, and contextual components. Play is fun, enjoyable, flexible and spontaneous, encompasses a wide range of self-chosen activities stimulated by own ideas and interests, and is minimally constrained by adult demands.	Pellegrini; Lindon; Rippe et al.	Neither-or; Purist/Didactician; End Didactician	End
Machado et al. (2019)	Deliberate play qua DMSP-model	Côté et al.	Purist	Mean
Machado et al. (2021)	Deliberate play qua DMSP-model	Côté et al.	Purist	Mean
Memmert et al. (2010)	NONE	NONE	NONE	Mean
Pearce & Bailey (2011)	NONE	NONE	NONE	End
Roca et al. (2012)	Deliberate play qua DMSP-model	Côté et al.	Purist	Mean
Roca & Ford (2021)	Play is informal games set-up by the children themselves, such as street soccer or backyard basketball	Côté et al.	Purist	Mean
Sieghartsleitner et al. (2018)	Play represents a fun-oriented learning activity without supervision (low value of performance orientation. The free play describes every football activity outside the club and without supervision.	Côté et al.	Purist	Mean
Watchman & Spencer-Cavaliere (2017)	We defined free play as unstructured, child-led activity that occurs inside or outside. We acknowledged free play in all forms (i.e., active free play, imaginative play, etc.) and its value to the overall health of children.	Gray	Purist	End
Williams et al. (2012)	Deliberate play qua DMSP-model	Côté et al.	Purist	Mean
Winther-Lindqvist (2013)	Playing is mostly fun, pleasurable, pretending and also a kind of sacred activity freed from immediate real-life consequences	Cohen; Groos; Piaget; Garvey	Didactician; Purist; Didactician; Purist/Didactician	Mean

Continued

Table 1b: Frequency of definitions and view of play and play used as a ‘means’ or an ‘end’

Characteristics	<i>n</i>	%
Definitions of play		
Provided	29	87,88
Not provided	4	12,12
Play theorists		
Provided	41 (28)	84,85
Bundy	1	3,03
Burdet & Whitaker	1	3,03
Charlesworth	1	3,03
Cohen	1	3,03
Côté et al.	20	60,61
Csikszentmihaly	1	3,03
Garvey	1	3,03
Gray	1	3,03
Groos	1	3,03
Lindon	1	3,03
Pellegrini	2	6,06
Piaget	1	3,03
Ramugondo	1	3,03
Rigby & Roger	1	3,03
Rippe et al.	1	3,03
Sagar & Lavallee	1	3,03
Scarlet et al.	1	3,03
Thorpe	1	3,03
OUNHCHR*	1	3,03
Vygotsky	1	3,03
Not provided	5	15,15
	41	
View of play		
Purist	30 (26)	78,78
Purist/Didactician	5 (4)	12,12
Didactician	3	9,09
Neither - or	2	6,06
	40	
NONE	4	15,15
Play as ‘means’ or ‘end’		
‘Means’	25	75,76
‘End’	8	24,24

Table 2a and 2b shows different skills and advantages acquired through playful soccer in the various studies. In connection to skills that playful soccer affects, 9.09% found improvement in cognitive skills (Blatchford et al., 2003; Williams et al., 2012; Roca et al., 2012), 12.12% in creative skills (e.g. Bernstein & Magelhaes, 2009; Memmert et al., 2010; Roca & Ford, 2021), 6.1% in decision-making skills (Ford et al., 2012; Roca et al., 2012), 9.09% in motor skills (Jarvis, 2007; Kentel & Dobson, 2007; Machado et al., 2021), 3.03% in self-regulatory skills (Erikstad et al. 2018), 12.12% in social skills (Blatchford et al., 2003; Jarvis, 2007; Knowles et al., 2013; Winther-Lindqvist, 2013), 3.03% in tactical skills (Forsmann et al., 2016), 3.03% in technical skills (Forsmann et al., 2016) and 27.27% in soccer-related skills in general (e.g. Güllich et al., 2017; Haugaasen & Jordet, 2012; Hornig et al., 2016).

Of other different advantages that occurred, studies found that playful soccer affected; the possibility of avoiding dropouts (9.09%) (Ford et al., 2012; Machado et al., 2021 and Watchman & Spencer-Cabaliere, 2017), increased self-confidence (3.0%) (Forsmann et al., 2016), enjoyment of recess/playtime (9.09%) (Bernstein & Magelhaes, 2009; Blatchford et al., 1990; Blatchford et al., 2003), enjoyment of soccer (12.12%) (Baker et al., 2019; Barez, 2011; Erikstad et al., 2021; Machado et al., 2021), increased motivation (18.18%) (Blatchford et al., 2003; Erikstad et al., 2021; Ford et al., 2012; Forsmann et al., 2016; Hendry & Hodges, 2018; Sieghartsletiner et al., 2018), physical activity (3.03%) (Knowles et al., 2013) and finally knowledge of unspoken rules (3.03%) (Jarvis, 2007).

Four studies (12.12%) showed no skills nor advantages from playful soccer. Güllich et al. (2020) concluded that it did not require an improvement of conceptual motor skills, and Hendry et al. concluded in their studies from 2014 and 2019 no increased motivation in connection with playful soccer either. Finally, Hendry et al concluded in another study from 2019 that professional footballers spent more time on deliberate practice rather than play, why they weren't able to conclude any possible effects of playful soccer.

Table 2a. Skills and advantages acquired from playful soccer

Skills	Authors	Advantages	Authors	No skills or advantages shown	Authors
Cognitive skills	Blatchford et al. (2003); Williams et al. (2012); Roca et al. (2012)	Avoid dropout	Ford et al. (2012); Machado et al. (2021); Watchman & Spencer-Cavaliere (2017)	No improvement in conceptual-motor skills	Güllich et al. (2020)
Creativity skills	Bernstein & Magelhaes (2009); Memmert et al. (2010); Roca & Ford (2021); Winther-Lindqvist (2013)	Confidence	Forsmann et al. (2016)	No motivational benefits	Hendry et al. (2014); Hendry et al. (2019)**
Decision making skills	Ford et al. (2012); Roca et al. (2012)	Enjoyment of recess/playtime	Bernstein & Magelhaes (2009); Blatchford et al. (2003); Blatchford et al. (1990)	Engagement in practice rather than play during childhood	Hendry et al. (2019)*
Motor Skills	Jarvis (2007); Kentel & Dobson (2007); Machado et al. (2021)	Enjoyment of soccer	Baker et al. (2019); Barez (2011); Erikstad et al. (2021); Machado et al. (2021)		
Self-regulation skills	Erikstad et al. (2018)	Motivation	Blatchford et al. (2003); Erikstad et al. (2021); Ford et al. (2012); Forsmann et al. (2016); Hendry & Hodges (2018); Sieghartsleitner et al. (2018)		
Social skills	Blatchford et al. (2003); Jarvis (2007); Knowles et al. (2013); Winther-Lindqvist (2013)	Physical activity	Knowles et al. (2013)		
Tactical skills	Forsmann et al. (2016)	Unspoken rules	Jarvis (2007)		
Technical skills	Forsmann et al. (2016)				
Soccer related skills in general	Baker et al. (2019); Ford et al. (2009); Ford and Williams (2011); Ford and Williams (2013); Güllich et al. (2017); Haugaasen & Jordet (2012); Hornig et al. (2016); Machado et al. (2019); Sieghartsleitner et al. (2018)				

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Table 2b: Frequency of skills and advantages acquired through playful soccer

Characteristics	<i>n</i>	%
Skills improved		
Cognitive skills	3	9,09
Creativity skills	4	12,12
Desicion making skills	2	6,1
Motor skills	3	9,09
Self-regulation skills	1	3,03
Social skills	4	12,12
Tactical skills	1	3,03
Technical skills	1	3,03
Soccer realted skills in genreal	9	27,27
	28	
Advantages found		
Avoid dropout	3	9,09
Confidence	1	3,03
Enjoyment of recess/playtime	3	9,09
Enjoyment of soccer	4	12,12
Motivation	6	18,18
Physical activity	1	3,03
Unspoken rules	1	3,03
	19	
No improvements in skills or advantages on behalf of play		
No improvement in conceptual-motor skills	1	3,03
No motivational benefits	2	6,1
Engagement in practice rather than play during childhood	1	3,03
	4	

Table 3a and 3b shows an overview of the different soccer context in the studies. It appears that playful soccer took place in various unorganized contexts in the majority of the studies. These were either in the recess/playground (21,21%) (e.g. Blatchford et al. 2003; Jarvis 2007), spare time (6,06%) (Erikstad, 2021; Hornig et al. (2016), or both (66,67%) (e.g. Erikstad, 2018; Forsmann (2016). Most studies investigated the importance of both organized training contexts and unorganized "training" contexts (deliberate play) of the participant's development in soccer. Therefore they included all unorganized contexts. In addition, playful

soccer takes place in organized club soccer in two publications (Barez, 2011; Baker et al., 2019).

Table 3a: Contexts of play within soccer

Context	Organized	Unorganized	Authors
Club Soccer	x		Barez (2011), Baker et al. (2019)
Recess/Playground Soccer		x	Blatchford et al. (2003); Jarvis (2007); Knowles et al. (2013); Machado et al. (2019); Machado et al. (2021); Pearce & Bailey (2011); Winther-Lindqvist (2013)
Spare Time Soccer		x	Eriskstad et al. (2021); Hornig et al. (2016)
Recess/Playground & Spare Time Soccer		x	Bernstein & Magelhaes (2009); Blatchford et al. (1990); Erikstad et al. (2018); Ford et al. (2009); Ford et al. (2012); Ford & Williams (2011); Ford & Williams (2013); Forsmann et al. (2016); Güllich et al. (2017); Güllich et al. (2020); Haugaasen & Jordet (2012); Hendry & Hodges (2018); Hendry et al. (2014); Hendry et al. (2019)*; Hendry et al. (2019)**; Kentel & Dobson (2007); Memmert et al. (2010); Roca et al. (2012); Roca & Ford (2021); Sieghartsleitner et al. (2018); Watchman & Spencer-Cavaliere (2017); Williams et al. (2012)

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Table 3b: Frequency of the playful soccer context

Characteristics	n	%
Soccer context (Onorganized)		
Club Soccer	2	6,06
Soccer context (Unonorganized)		
Recess/Playground Soccer	7	21,21
Spare Time Soccer	2	6,06
Recess/Playground & Sparetime Soccer	22	66,67
	33	

Table 4a and 4b show different methodological approaches in the studies. Here, 54.55% of the studies use a quantitative approach, 39.39% a qualitative approach, and 6.1% mixed methods. The majority of studies have used a longitudinal study design (45,45%) (e.g.

Blatchford et al., 2003; Hendry & Hodges, 2018; Hornig et al., 2016), but qualitative reviews (12,12%) and case studies (18,18%) have also been used several times (e.g Blatchford et al.

2013; Jarvis, 2007; Winther-Linqvist, 2013). In 24.24% it was either a practical guide, cross-sectional study, quasi-experimental longitudinal study, comparative study, prospective longitudinal study, interpretive study, longitudinal case study or ethnographic study.

For collecting empirical evidence, retrospective questionnaires dominated (45,45%) (e.g. Erikstad et al., 2018; Güllich et al., 2017; Hendry et al., 2019), but prospective questionnaires (18,18%) (e.g. Erickson & Côté, 2015; Forsmann et al., 2016; Memmert et al., 2010), observations (15,15%) (e.g. Blatchford et al., 2003; Jarvis, 2007; Kentel & Dobson, 2007) and interviews (24,24%) (Pearce & Bailey, 2011, Watchman & Spencer-Cabaliere, 2017; Winther-Lindqvist, 2013) were used as well.

Table 4a. Study design, measurements and participants soccer level

Qualitative	Quantitative	Mixed methods	Study design	Authors	Measurements	Authors	Participants soccer level	Authors
	X		Review	Baker et al. (2019); Ford & Williams (2013); Haugaasen & Jordet (2012); Machado et al. (2019)	NONE	Baker et al. (2019); Barez (2011); Haugaasen & Jordet (2012); Machado et al. (2019)	Elite	Erikstad et al. (2018); Ford et al. (2009); Ford et al. (2012); Güllich (2017); Haugaasen & Jordet (2012); Hendry & Hodges (2018); Hendry et al. (2014); Machado et al. (2019); Memmert et al. (2010); Roca & Ford (2021); Sieghartsleitner et al. (2018)
			Practical Guide	Barez (2011)	Observation	Bernstein & Magelhaes (2009); Blatchford et al. (2003); Jarvis (2007); Kennel & Dobson (2007); Machado et al. (2021)	Non-elite	Baker et al. (2019); Barez (2011); Bernstein & Magelhaes (2009); Blatchford et al. (2003); Blatchford et al. (1990); Jarvis (2007); Kennel & Dobson (2007); Knowles (2013); Pearce & Bailey (2011); Watchman & Spencer-Cavaliere (2017); Winther-Lindqvist (2013)
			Case Study	Bernstein & Magelhaes (2009); Erikstad (2021); Jarvis (2007); Kennel & Dobson (2007); Knowles (2013); Pearce & Bailey (2011)	Interview	Bernstein & Magelhaes (2009); Blatchford et al. (1990); Güllich et al. (2020); Jarvis (2007); Kennel & Dobson (2007); Pearce & Bailey (2011); Watchman & Spencer-Cavaliere (2017); Winther-Lindqvist (2013)	Both	Erikstad et al. (2021); Ford & Williams (2011); Ford & Williams (2013); Forsmann et al. (2016); Güllich et al. (2020); Hendry et al. (2019)*; Hendry et al. (2019)**; Hornig et al. (2016); Roca et al. (2012); Williams et al. (2012)
	X		Longitudinal study	Blatchford et al. (2003); Blatchford et al. (1990); Erikstad et al. (2018); Ford et al. (2009); Forsmann et al. (2016); Hendry & Hodges (2018); Hendry et al. (2019)*; Hendry et al. (2019)**; Hornig et al. (2016); Machado et al. (2021); Memmert et al. (2010); Roca et al. (2012); Roca & Ford (2021); Sieghartsleitner et al. (2018);	Retrospective questionnaire	Blatchford et al. (2003); Erikstad et al. (2018); Ford et al. (2009); Ford et al. (2012); Ford & Williams (2012); Forsmann et al. (2016); Güllich et al. (2017); Hendry & Hodges (2018); Hendry et al. (2019)*; Hendry et al. (2019)**; Hornig et al. (2016); Machado et al. (2021); Roca et al. (2012); Roca & Ford (2021); Sieghartsleitner et al. (2018); Williams et al. (2012)		

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X	Cross-sectional study	Ford et al. (2012)	Prospective questionnaire	Güllich et al. (2017), Güllich et al. (2020); Hendry & Hodges (2018); Hendry et al. (2014); Knowles et al. (2013); Memmert et al. (2010)
X	Comparative study	Ford & Williams (2012)	Semi-structured interview	Erikstad et al. (2021)
X	Quasi-experimental longitudinal study	Güllich et al. (2017)	Training diaries	Erikstad et al. (2021)
	Longitudinal study	Güllich et al. (2020)	Photovoice	Bernstein & Magelhaes (2009)
X	Prospective longitudinal study	Hendry et al. (2014)	Sport-specific skill test	Forsmann et al. (2016); Williams et al. (2012)
	Interpretive study	Watchman & Spencer-Cabaliere (2017)	Perceptual-cognitive-test	Roca et al. (2012)
X	Ethnographic study	Winther-Lindqvist (2013)		
	Longitudinal case study	Williams et al. (2012)		

Continued

Table 4b. Frequency of the methodological framework, study design, measurements, and participants soccer level

Characteristics	<i>n</i>	%
Methodological framework		
Quantitative	18	54,55
Qualitative	13	39,39
Mixed-methods	2	6,1
	33	
Study design		
Longitudinal study	15	45,45
Case study	6	18,18
Practical guide	1	3,03
Cross-sectional study	1	3,03
Quasi-experimental longitudinal study	1	3,03
Comparative study	1	3,03
Prospective longitudinal study	1	3,03
Interpretive study	1	3,03
Longitudinal case study	1	3,03
Ethnographic study	1	3,03
Review	4	12,12
	33	
Measurements		
Observation	5	15,15
Interview	8	24,24
Retrospective questionnaire	15	45,45
Prospective questionnaire	6	18,18
Semi-structured interview	1	3,03
Training diaries	1	3,03
Photovoice	1	3,03
Sport-specific skill test	2	6,1
Perceptual-cognitive-test	1	3,45
NONE	4	12,12
Participant soccer level		
Elite	13	39,39
Non-elite	12	36,36
Both	8	24,24
	33	

Based on the results, some patterns and connections are observed. The majority of studies: use Côté et al.'s theory of play; use a purist play view; use play as a '*means*' to achieve something; are quantitative and longitudinal, and; use retrospective questionnaires as measurement. Finally, organized soccer in club soccer and unorganized soccer in spare time was the most dominant contexts

Discussion

Based on the results of this review, three main themes were relevant to discuss. The three themes were 1) playful soccer often leads to the development of soccer-specific skills, 2) play from a purist view was examined in most publications as a means of acquiring soccer-relevant skills, and 3) the theoretical and methodological frameworks were generally repetitive. We aim to clarify the existing research on the area of playful soccer and further the gaps in the research in need of future research.

Playful soccer leads to soccer-specific skills

Virtually all studies find various benefits, such as increased motivation and reduced dropout as well as improvement of cognitive, creative, and motor skills, etc., in playful soccer, which can be soccer relevant. Furthermore, there is a general increase in happiness (Bernstein & Magelhaes, 2009; Blatchford et al., 1990; Blatchford et al., 2003) and increased social skills (Blatchford et al., 2003; Jarvis, 2007; Knowles et al., 2013 ; Winther-Lindqvist, 2013). Some studies also show that playful soccer can lead to increased joy and enjoyment of soccer training (Baker et al., 2019; Barez, 2011; Erikstad et al., 2021; Machado et al., 2021). These findings agree with other studies in the research on play, which found that children, through play, learn creative skills (Robinson, 2021; Gordon, 2009; Hirsh-Pasek, 2009; Vygotsky, 1978;), social skills (Côté et al., 2007; Groos, 1899) as well as motor skills (Côte et al., 2007) besides increases motivation (Rubin et al., 2007; Rubin, Fein & Vandenberg, 1983) and joy of the child (Côté et al., 2007; Dewey, 1986; Hirsh-Pasek, 2009; Huizinga, 1938).

In a systematic review of drop-out from organized soccer in children and young people, Temple and Crane (2016) found that one of the main reasons for drop-out is declining motivation which leads to a lack of enjoyment of the play. Since playful soccer increases joy and motivation, it can potentially retain players for longer and prevent the number of dropouts. In continuation, Ommundson & Vaglum (1991) investigate the significance of

failure in soccer concerning self-esteem and continued participation. This link is further related to how primary performance-oriented training often negatively impacts less skilled players. The participants were 223 12-16-year-old soccer players in a club in Oslo. The players constantly compare themselves to the more skilled players, which leads to negative self-esteem that causes them to blame themselves for the outcome of their performance. Here, a playful environment that stimulates joy and self-esteem can help increase motivation and retention in the sport, thereby avoiding dropout (Ommundson & Vaglum, 1991). These findings support the importance of playful soccer within an organized context.

In the future, there is potential to investigate whether children and young people develop various 'life skills' in connection with playful soccer. These include time management, communication skills and leadership (Côté et al. 2009), stress management, goal setting, empathy, and problem-solving (UNICEF). Thus, many types of skills are not yet investigated on whether playful soccer has an influence.

In summary, playful soccer generally has advantages, such as improved skills, increased motivation, and reduced dropout, which can be considered factors that are both relevant in elite and grassroots soccer.

Aimless purposeful play

Most studies included in this review use Côté et al.'s definition of play as their theoretical point of view. This definition is puristic, as the play is child-controlled, where the goal is solely to play itself for enjoyment and joy. However, the studies use play as a '*means*' to achieve a goal rather than an '*end*', where play is the goal itself. More specifically, they investigate how soccer in unorganized contexts (recess, spare time, etc.) has influenced the development and outcome of elite players' performance levels and how they perform in the organized context (Erikstad et al., 2021; Ford et al., 2010, Forsman et al. 2016). This is paradoxical since the definition and the usage contradict each other. A puristic definition, which suggests that play is examined aimlessly and for the sake of play itself, is examined didactically. According to Sommer (2020), the situation in play research is that if a researcher takes on one view, he is forced to involuntarily opt out of the other, as it is impossible to view play as aimless and at the same time as it promotes learning, and vice versa. Based on this, it is paradoxical that the studies investigate how play from a puristic view affects the

development of soccer talents since they, according to Sommer (2020), abandon the didactic view of play, and thereby the opinion that play promotes learning. In other words, they examine what skills soccer players acquire through aimless play. However, it is possible to include both views of play by viewing them as complementary, which makes it possible to understand play entirely (Sommer, 2020). It is important to emphasize that there is nothing wrong in investigating how play promotes learning, as long as there is a match between the applied view of play and the use of play as a '*means*' or '*end*'. In the future, it would be interesting to view these views as complementary, as it includes both of them, for instance, by viewing learning as an effect of aimless play, which makes sense regarding investigating any effects of playful soccer.

This abundance of focus on how play has influenced the development and outcome of elite soccer players' levels reflects the performance focus in the general society. However, play as a goal in itself is not ignored in the research, as some studies use a puristic view of play, where play is investigated this way (Kentel & Dobson, 2007; Watchman & Spencer-Cavaliere, 2017). These studies commonly examine children's play in unorganized contexts, where soccer occurs as part of play. For example, in the study by Kentel & Dobson (2007), they use Caillois (2006), Vygotsky (1978), and Csikszentmihalyi (1971), who all have puristic definitions (See appendix 1). The study examines how Kenyan children play in breaks at school and in their free time, and focuses on child-led play, where play is the goal in itself. Here, there is a correspondence between the view of play and the way the play is investigated.

Furthermore, some studies use several theorists with different positioning within play theory (Winther-Lindqvist, 2013; Knowles, 2013; Bernstein & Magelhaes, 2009). An example is Bernstein and Magelhaes (2009), who include Bundy (1997), Rigby & Rodger (2006), Office of the United Nations High Commissioner for Human Rights (2002), Burdette & Whitaker (2005), and Scarlett et al. (2005). The reason they include several definitions is to accommodate the complexity of play (Ibid.). The definitions imply both characteristics from the puristic and didactic views of play, since play is internally motivated and carried out because it is fun and beneficial due to learning effects from play. We argue that in this study, they use a complementary view of play.

These studies show that it is possible to examine play either exclusively puristically or from a complementary point of view. Still, since the studies make up a small part of the total number of studies included, we argue that there is a lack of research in these areas.

To summarize, most studies use a puristic view of play to achieve the beneficial effects of playful soccer, and some studies position themselves with a complementary view of play to embrace the complexity of play. Still, in the future, it could be interesting to take a closer look at this in several different soccer contexts. In addition, it will be relevant to explore an exclusively puristic view of play used as an 'end' further.

The one-sided research

In this scoping review, one of the most important points found is that in the research of playful soccer, there is a tendency towards methodological uniformity on several parameters. Most studies use longitudinal and retrospective study designs, with a primary focus on the history underlying the performance achieved by the elite soccer players who are the participants in several of the included studies. In addition, the retrospective history is most often collected in a way where most of the qualitative data, the excess amount of hours spent playing, is included. But how, when, and what the soccer players played is not described. Whether this play is something that has arisen out of one's desire or whether it is something that is influenced from outside is unknown. It is often the case that longitudinal studies call for qualitative empiricism in ethnographic studies, e.g. (Larkin & Reeves, 2018), which would provide the opportunity to examine how playful soccer has been incorporated more specifically in training. It does not apply to the included studies in this scoping review and is relevant to consider in future research, as the factors can be investigated more deeply and create concrete knowledge about playful soccer. This uniform study design can contribute to the fact that the results in the studies are alike in several cases because the methodological approach is the same. It could also be advantageous to use a study design that allows the researcher to influence to a greater extent, how the play is brought into the soccer context in, e.g. action research. In this way, it will also be possible to include the soccer players' opinions on how to incorporate playful soccer. Furthermore, through intervention studies, it could be interesting to see how soccer players would react to soccer training, where play occurs for a

while. In this way, researchers can investigate the different facets of playful soccer more deeply via different study designs.

In the retrospective quantitative studies, the primary target group is elite players, and as the word implies, elite is associated with the a smaller, selected superior group due to their abilities and qualities in consideration of others in general (Oxford University Press, 2023). Grassroot Soccer has not been investigated in this area why there is a lack of knowledge about the importance of playful soccer at a non-elite level. Currently, studies focus on top-level soccer players and how playful soccer has impacted their development. However, studies have not investigated the significance of playful soccer on development in terms of how and when play and soccer was linked. This focus could indicate that the research largely reflects the performance society mentioned earlier, which is characteristic of our society and dominates the world of sports, where play is in decline (Sommer, 2020). Therefore, gaining greater insight into the specific significance of playful soccer and a broader sense of any outcomes is necessary, besides what kind of playful soccer has significance and when it has significance for, among other things, performance.

Other studies examine play in the unorganized soccer context at recess or on the playground. Within this part of the studies, there is also uniformity, where the studies are typically carried out as qualitative case studies with interviews or observations. The case studies can help to give an insight into how play arises or takes place in different contexts, where it is used here on the playground, and the unorganized play is examined in connection with soccer in the recess. However, Winther-Lindqvist (2013) does an ethnographic study that provides a greater opportunity to understand play culture through the children's actions and values. Watchman & Spencer-Cabaliere (2017) conduct an interpretive study that provides the opportunity to examine play as a phenomenon in the context in which it occurs and how its actors help to create and shape the meaning of and for play. It could also be interesting to investigate how an intervention with different forms of playful soccer, organized or unorganized, would affect the children based on some of the skills and benefits associated with playful soccer, such as motor skills, cooperation, etc.

The age group for the period in which play is involved is often between 6-12 years (insert studies as sources), and it is relevant to consider whether this may also have an impact on the influence play has. The situation is that play is often different and therefore contributes with different skills as a mega effect cf. Sommer, depending on the age at which the play is

examined. There is a difference between whether it is rhythmic play, movement play, or 'Rough-and- Tumble Play' where rhythmic play is often for babies and very young children, movement play for 4-5-year-olds, and 'Rough-and-Tumble Play' for 6-10-year-olds (Pellegrini & Smith, 1998). The various elite-oriented studies neither described the form of play nor the specific age at which the play was present, whereas, in contrast, the studies dealing with recess soccer and playground soccer make it clear by indicating the age of the children.

In most studies, playful soccer has been investigated in unorganized contexts, which are respectively in recess, on the playground, and in spare time. This implies the popularity of football as an unorganized game, as many children play it this way. This reinforces the likelihood of a particular play-culture within soccer, which, as mentioned in the introduction, should be investigated. These studies mainly investigated playful soccer in unorganized contexts using a puristic view of play, why the didactic view of play has not been investigated. Therefore, it could be interesting in the future to use the didactic view of play, where playful soccer is examined in an organized context. For instance Johnsen (2019) has investigated how the coach's effect on the players' "own-activity" can help create a playful environment in the organized soccer context. The environment can accommodate and demand play, where the players can push boundaries and develop positively (Johnson, 2019). Primarily, the soccer club has been good at developing players at a high level while retaining them for a long time in the soccer environment (Ibid.). The coach has managed to create a fun environment where the exercises that the coach was in charge of giving the players more and more desire to keep playing soccer. These exercises were, among other things, competitions with a "harmless" penalty (Ibid.). It has stimulated self-activity through competitions and other training content, which has created an environment that has been inclusive and created well-being and equality between the players (Ibid.). Therefore, a didactic play approach could be relevant to examine more closely and apply in practice with the coaches.

However, new fields of research, which playful soccer is, often tend to be investigated uniformly, cf. Wattie et al. (2017). They believe that researchers investigate phenomena from one direction, which leads to subsequent research within the same field being an approximate repetition and replication of the already existing research in the field. This is the case for the studies in our review that examined playful soccer based on Côté et al.'s definition in a quantitative study design using retrospective questionnaires on elite as well as both elite and

non-elite (Erikstad, 2021; Forsmann et al. 2016; Hornig et al., 2016; Memmert et al. 2010). Playful soccer is, therefore, a burgeoning field of research where the research and use of play theory is repeated, although there are many definitions of play, see Appendix 1.

In connection with the side effects of play, international research shows what children learn through play. Roskos (2018), Zigler et al. (2004) and Fischer et al. (2011), found that children learn communicative skills. In addition Fischer et al. (2011) also found that children learn everyday mathematical elements such as a sense of spatiality as well as size and weight. None of the studies included in this review find improvements in these elements, which is why it could be interesting to investigate what influence playful soccer has on these.

To summarize, the methodological approach has primarily been divided into two: the qualitative case studies concerning playful soccer in the recess or on the playground and; the quantitative retrospective longitudinal studies dealing with the partial importance of play for elite performance in soccer. The latter dominates within this research. There is mainly a deficiency in the study of playful soccer from a didactic view of play in the organized soccer context, and a study of playful soccer within grassroots sports.

Strengths and limitations

In our scoping review, there have been strengths and limitations. Among the strengths, a librarian from Aalborg University guided us before and during the literature search and the screening of the included literature at various stages. Furthermore, before selecting our final databases, we uncovered various to ensure that we have used the most relevant ones within our research area. Furthermore, our complementary understanding of play, cf. Sommer (2020), gave us the opportunity to include a wider spectrum of articles dealing with play and made it possible to make a more nuanced discussion regarding the existing research in the area. Lastly, a strength in the screening proces was the possibility to screen blinded. This ensured no influence by each other in the proces, after which we discussed doubts or disagreements. Our supervisor, Niels Nygaard Rossing was involved in any doubts or disagreements we couldn't solve ourselves.

It has also been a strength that we have tried to be as transparent as possible in the description of our methodological approach. These factors increase the validity and reliability of the review.

A limitation for us has been the time available, which has meant that we have opted out along the way. These opt-outs imply a lack of examination of 'grey' literature and a search in the reference lists of our included publications. These opt-outs mean that we might have missed relevant literature and, therefore, it is relevant in the future to carry out a similar study, where the time for the literature search is not limited.

Conclusion and future research

In our scoping review, we have been concerned with finding out what research there is within playful soccer, which involves play in organized and unorganized soccer contexts. Our primary finding is the one-sidedness within the research of playful soccer. Firstly, concerning the theoretical aspect, most studies use Coté et al.'s puristic definition of play. Paradoxically the studies examine play as a '*means*' to achieve a goal which is a didactic play approach. Regarding the methodological aspect, the studies are twofold. They are either quantitative longitudinal retrospective studies, where the target group is elite or elite and non-elite oriented, or case studies, which use a qualitative prospective approach, where the target group is exclusively non-elite. We can conclude great amounts of repetition within this research, both regarding the understanding and use of play, and the methodological approach. Finally, we conclude that playful soccer can positively influence skills, such as motor, creative, and social skills, as well as other aspects, such as increased motivation and reduced risk of dropout.

In future research, it will be relevant to examine playful soccer from an exclusively puristic perspective, where play is examined as an '*end*', and a solely didactic view of play, where play is examined as a '*means*' to achieve learning. In this connection, it will be relevant to investigate playful soccer in both organized and unorganized contexts. An investigation of the didactic view of play in the organized soccer context could be particularly interesting, as play has not yet been investigated in this way. Furthermore, the research should investigate the use and importance of playful soccer in grassroots contexts.

Furthermore, the use of several different theoretical definitions of play and their view of play will be interesting to include in the research, in addition to using a complementary view of play. In addition, studies should investigate more thoroughly the overlap between the skills obtained through playful soccer and the skills acquired through play and soccer, besides the possible development of different 'life skills'. Concerning the one-sided study designs,

studies in the future should use other methods, such as action research or intervention studies in the study of playful soccer. Furthermore, the studies that use retrospective questionnaires should investigate how the participants have played within soccer, how the play has arisen, and which specific play skills it affects in the situation. It could be interesting to look at how playful soccer in the organized context affects participation, motivation, and different skills in soccer.

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