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Role of Team Sports Activity in Developing Social Skills among Kindergarten Children

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Research Article

Keywords: team sports, activities, social skills, communication, kindergarten

Posted Date: May 21st, 2026

DOI: https://doi.org/10.21203/rs.3.rs-9238284/v1

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Additional Declarations: No competing interests reported.

Abstract

kindergarten children in the education directorates of Irbid Governorate, Jordan. It also examined whether teachers' years of experience and academic qualifications influence their perceptions regarding the impact of team sports activities in developing social skills among kindergarten children. The researcher used the descriptive-analytical approach, a Likert scale was used, applying an observation tool consisting of three domains (leadership, cooperation, and social communication) to a sample of 303 female kindergarten teachers. The findings of the statistical analyses revealed that team sports activities domains (leadership & cooperation) had a high role in developing kindergarten children's social skills. In contrast, the social communication skills domain was moderate. However, no statistically significant differences were found in the perceived impact of team sports on kindergarten children's social skill development based on teachers' years of experience or academic qualifications. These findings provide valuable insights into the role of team sports in early childhood education and can guide educational administrators in promoting team sports for social development.

1. Introduction

Kindergarten, as a formative stage, plays a pivotal role in shaping children's overall development. It fosters their physical, cognitive, emotional, and social skills through interaction and play in a structured environment (Aboud & Al Ali, 2023). By the age of five, nearly 90% of a child's core cognitive, social, and emotional abilities are developed (Murtada, 2006), making this a crucial period in early childhood development, experiences, and personality traits formation. Some scholars describe this period as the age of building creativity (Mokwunye & Anyanwu, 2023; Murtada, 2006).

Kindergartens are believed to contribute significantly to the development of children's social and personal abilities, such as self-regulation and the ability to express feelings and needs. Numerous investigations have shown that factors such as the parents' educational level, family income (Aboud & AlAli, 2023; Akram, Zahid, & Pervaiz, 2024), the child's surrounding environment, and cultural and social factors play an influential role in the development of a child's social skills at this stage (Aguayo, Hernandez, Yasui, Estabrook, Anderson, Davis, & Heard-Garris, 2021; Maleki, Chehrzad, Kazemnezhad, Mardani & Vaismoradi, 2019).

Since humans are inherently social creatures, social skills are essential for effective interaction with others, participation, and group assertiveness. This is made abundantly visible in the early stages of development through interactions with pain and hunger triggers. Children's abilities and experiences grow as a result of the way parents interact with children, impacting how they receive and interpret other people's emotions, how they practice rewarding and punishing others, and how they understand the social rules that define acceptable and unacceptable behavior and how to apply them later in life (Al-Hafezi & Al-Harbi, 2024, p. 332).

Providing children with social skills is essential for healthy social development. It enables them to gain experiences that help them participate actively in society, especially given their high capacity to learn

and be influenced by their surrounding environment (Al-Bayyar, 2019). This makes kindergarten a crucial foundation for building their social experiences. Team activities in early childhood aim to familiarize children with their physical and social environment and develop a spirit of cooperation and teamwork (Hosokawa et al., 2024; Kizilkaya, Bingölbali, & Avci, 2025; Ivanović, 2024). Playing with peers also contributes highly to supporting social development and addressing behaviors such as selfishness and shyness (Qanawi, 2018) by enhancing participation and self-confidence (Al-Hunaidi, 2006; Kizilkaya et al, 2025). Enrolling a child in kindergarten is socially important, as it fosters the formation of their personality and the acquisition of behavioral patterns that help them socially adapt. This underscores the vital role of kindergarten teachers and administrators in shaping children's social experiences (Al-Mutairi & Al-Abadi, 2024).

Numerous investigations have indicated that participation in team sports activities effectively helps develop many social skills through sustained interaction with peers in structured group settings, which typically contributes to enhancing children's sense of responsibility and cooperation (Eime, Young, Harvey, Charity & Payne, 2013; Hosokawa et al., 2024; Kizilkaya et al, 2025; Ivanović). Furthermore, studies highlighted the critical role team activities have in strengthening the concepts of loyalty and belonging in children's learning to assume leadership roles, thereby boosting their self-confidence and developing their skills on both the leadership and educational levels (Fraser-Thomas, Côté, & Deakin, 2005). Notably, the study's results (Kizilkaya, Bingölbali, & Avci, 2025) showed that participants reported that sports have positively strengthened their communication with peers, enhanced their socializing with other children, improved their self-confidence, and made them more harmonious through group work. The participants also stated that children started to exhibit positive behaviors, such as being more patient, perceiving themselves as part of a team, and moving away from the harmful effects of technology.

Numerous studies have examined the impact of team sports activities on developing social and psychological skills in children. For instance, a very recent study by Xie et al (2025) examined the effects of a 5-week play-based physical training on social–emotional competence in Chinese preschool children using a quasi-experimental approach. The intervention group's performance on the emotional-stroop test and its capacity to control negative emotions were found to have significantly improved following the intervention. These results imply that even a 5-week physical training program centered around play can successfully support preschoolers' development of socio-emotional competence.

Erdilanita and Ma’mun (2025) analyzed published studies from 2020 to 2024 to identify how participation in sports activities significantly contributes to the development of social skills in early childhood and adolescence. Results of the 12 articles reviewed revealed that sports participation not only significantly contributes to the development of social skills like cooperation, communication, leadership, and empathy in children but also fosters positive character traits. This includes improving their emotions, self-esteem, and sense of belonging, thereby fostering positive character traits. These results offer a hopeful outlook on the potential of team sports to shape children's character.

A study by Ridwan (2024) explores the impact of sports on the mental and social development of early childhood children at TK Perintis Bekasi Utara. Using a mixed-methods approach, it found that children who participated in sports showed significant improvements in mental development, including concentration, problem-solving skills, and emotional regulation. Socially, they also showed improved communication, teamwork, conflict resolution, and emotional regulation. The study suggests that sports can enhance social and emotional skills in children, encouraging parents and educators to promote sports participation in early childhood education programs.

Al-Hudhud's (2024) study highlighted the significant role of popular games in developing social skills from the perspective of early childhood teachers. A descriptive survey method was administered to a sample of 204 teachers. The results showed that popular games have a very high impact on developing children's skills of participation, cooperation, communication, support, and assistance.

Using the quasi-experimental approach, Azaq and Shtawe (2024) investigated the role of physical education and sports activities in developing social interaction among 30 autistic children, aged 5–7 years. The study sample was divided into two groups (experimental and control). The results found statistically significant differences in the degree of social interaction in favor of the experimental group, which confirms the contribution of the physical education and sports activities program in developing social interaction among autistic children. Given that team port helps autistic students feel more at ease when engaging with a team, we conclude that physical education and sports programs are beneficial in helping autistic children develop their social interaction abilities.

Jones (2024) employed a desk methodology to evaluate the impact of participation in team sports on the development of social skills among youth. The researcher relied on collecting secondary data from studies and reports published in journals and electronic libraries. The study's results showed that participation in team sports activities enhances many personal and social skills, such as communication, cooperation, and conflict resolution. It also instills values of discipline and ethical behavior, increases self-esteem, and builds the ability to build meaningful social relationships.

In the same context, Al-Bar and Fadl (2024) examined the role of team sports activities in enhancing social interaction among middle school students. The researchers used a descriptive approach, relying on a questionnaire distributed to a sample of 60 randomly selected students. The data were analyzed using percentages and the chi-square test. The results demonstrated the effectiveness of team sports activities in enhancing the dimensions of social interaction and social cohesion among students.

Qadi and Rabouh (2022) explored the role physical education and sports classes play in developing social cooperation among middle school students, adopting a descriptive approach. One hundred five students from several middle schools in Ain Defla participated in the study. A questionnaire was administered, focusing on three main themes: participation, helping others, and following instructions. The results confirmed that physical education classes play an important role in developing effective participation among students and fostering a spirit of cooperation and helping colleagues, in addition to adhering to rules and instructions. Al-Hawala (2020) aimed to identify differences in the impact of

practicing sports activities on the dimensions of positive social behavior among children in early childhood. The researcher adopted a descriptive approach using a survey method, and the sample included 150 mothers of children who practice and do not practice sports activities. The sample was divided into a survey sample and a baseline sample (100 mothers). A scale for positive social behavior for kindergarten-aged children was used, based on the mothers' assessments. The results showed statistically significant differences in favor of children who practiced sports activities in six main dimensions: environmental behavior, interpersonal relationships, communication skills, organized play, self-care, and expression of feelings.

Ramadan's (2016) study aimed to identify the role of educational physical activities in developing forms of social interaction among students aged 18–20 during physical education classes at Ahmed Zabana High School in Algiers. The researcher used a descriptive approach, with the study population comprising 240 male and female students, and a sample of 60 male and female students. A questionnaire was used as a data collection tool. The results showed that the majority of senior students prefer to play sports and consider it an important means of entertainment. It also contributes to improving their psychological and social well-being, as they feel comfortable and calm, and are characterized by energy, positive behavior, and good relationships with others.

In another study, Youssef and Zioud (2013) conducted a study to measure the impact of team play activities on developing leadership skills among kindergarten children (5–6 years old). The researchers designed a leadership personality test based on leadership theories, in addition to a set of team games aimed at developing leadership skills. The study population included 120 children, both male and female, from kindergartens in Damascus. A random sample of 52 children was selected and divided into two groups: experimental (26) and control (26). The results showed that, compared to traditional teaching methods, team play activities are more effective in developing leadership skills among kindergarten children.

In light of the researcher's review of previous studies related to team sports activities, it is clear that previous studies help in building a theoretical framework and encompassing what can be perceived from important axes directly related to the study problem, forming a deeper understanding of it, its various concepts and dimensions, choosing the study variables, its methodology and tools, and determining the appropriate statistical methods. There are similarities between this study and previous studies in terms of the methodology used (descriptive approach, questionnaire) and its variables, emphasizing the importance of team activities.

By reviewing previous studies, it was noted that most studies examined the impact of team activities in developing social skills in children (Azaq & Shtawe, 2024; Erdilanita & Ma’mun, 2025; Al-Hawala, 2020; Al-Hudhud, 2024; Jones, 2024; Ridwan, 2024; Xie et al, 2025; Youssef & Zioud, 2013), as our study and they emphasized that participation in team sports enhances various personal skills, such as communication, cooperation, and conflict resolution. Other studies explored the influence of team sport in developing middle school students’ social skills (Al-Bar & Fadl, 2024; Qadi & Rabouh, 2022) and students aged 18–

20 (Ramadan, 2016). Despite being conducted in different cultural contexts, these investigations all highlighted the significant role team sport activities play in the social development of individuals.

Problem Statements

Early childhood is a critical developmental stage where a child's personality, skills, and social principles begin to take shape, laying their foundations for their future behavior and interaction with others later in life. Social sports activities can be viewed as an effective strategy for enhancing skills in various forms, as they aim to create a safe, interactive environment capable of providing the child with several concepts, including cooperation, leadership, and social communication. Al-Hawala (2020) emphasized the role of parents in encouraging their children's engagement in sports activities, especially given that the widespread use of electronic games has taken control of children's minds and behaviors. Therefore, it is essential to develop the child's personality through encouraging them to invest their free time in something more enjoyable and constructive, such as participating in sports (Kizilkaya et al, 2025). Based on the researcher's fieldwork and expertise in early childhood educational supervision, particularly classroom supervision and team sports in schools, he observed that teachers' employment of team sports activities varies considerably. It may also be possible to intentionally use these activities to help the youngster develop their social skills and personality. The lack of thoroughly researched methodological strategies and resources that engage team sports to foster social components was another observation made by the researcher. Additionally, it was noted that when engaging in team sports activities, some children exhibit observable gains in a variety of skills when contrasted with their peers who do not engage and do not have the same opportunities. Consequently, it is essential to investigate the impact of team sports activities on the development of social skills in kindergarten children, to achieve results and formulate recommendations for practical applications, thus facilitating children's acquisition of various social skills. To guide the research, the following questions were formulated:

- What is the role of team sports activities in developing the social skills of kindergarten students, from the perspective of their teachers in the Irbid Governorate Education Directorates?
- Are there statistically significant differences ($\alpha = 0.05$) in the role of team sports activities in developing the social skills of kindergarten children, from the perspective of their teachers in the Irbid Governorate Education Directorates, attributable to teachers' years of experience and academic qualifications?

Study Objectives

The current study aims to explore the influence of team sports activities on developing social and cooperative skills of kindergarten children in the education directorates of Irbid Governorate, and to examine whether teachers' years of experience and academic qualifications impact their perceptions regarding the influential role of team sports activities in developing social skills among kindergarten children.

Study Importance

Team sports activities are an effective educational tool for developing children's social skills. They foster the values of cooperation, communication, respect for others, and responsibility, which contribute to building their personalities and enhancing their ability to adapt positively to society. These activities also provide opportunities for children to interact physically, psychologically, mentally, and socially, which directly impacts the development of their personality traits and the formation of positive social behavior.

The importance of this study lies in several aspects. It sheds light on leadership, cooperation, and social communication skills, and contributes to enriching the Arab literature with research on the development of social skills in early childhood. It also highlights the role of group sports activities in developing the abilities of kindergarten children, providing results that can help kindergarten teachers focus their attention on the importance of using sports activities as an effective educational and pedagogical tool. Furthermore, this study is expected to open new horizons for researchers to conduct further studies on team sports activities in different contexts or with new variables, enhancing knowledge accumulation and contributing to the development of educational practices directed at children.

Conceptual and Operational Definitions

Team sports activities are described as the most important educational tools that provide children with opportunities for positive interaction in various social situations, instilling in them the values of cooperation and building and maintaining relationships in accordance with societal norms and values (Al-Saleh, 2017). In our research, it refers to a set of physical games played by children within a team or group in an organized sports environment, to achieve educational and social goals. These games are implemented during physical education classes or recreational activities in kindergartens, and their outcomes are measured through the applied program developed in this study.

Cooperation skills are defined as a fundamental life skill that children need to develop their ability to work collaboratively with others in a positive environment (Youssef, 2024). In this study, engaging all kindergarten children in group sports activities that require cooperation enhances their communication and willingness to help others complete assigned activities or tasks.

Similarly, **leadership represents** an important dimension of a child's personality, viewed as an individual's ability to influence others to achieve common goals (Gibson, Ivancevich & Donnelly, 2012). It is operationally defined as a kindergarten child's score on a scale developed to measure this skill.

Communication skills are referred to as a complex process aimed at exchanging ideas, feelings, and facts between the sender and receiver through messages transmitted through various channels to achieve multiple purposes (Al-Jayousi, 2002). In this study, it refers operationally to the child's use of language in speaking, listening, and understanding, in addition to employing a tone of voice appropriate to the situation to express ideas and feelings.

Kindergarten is considered the preparatory stage from the age of (3–6) years, during which the child acquires diverse knowledge, values, and attitudes, whether scientific, social, or physical (Youssef, 2024). It has been operationally defined as the pre-school stage in Jordan, which aims to provide the necessary physical, intellectual, and social care for children in this age group.

2. Methods and Design

Design:

The descriptive-analytical approach was employed to extrapolate educational literature related to the research topic during the research and analysis phase to examine the extent to which team sports activities play a role in developing social skills in kindergarten children. Previous studies related to the research topic and the development of the proposed program and research tools were reviewed.

Study Sample

The study sample consisted of 303 female kindergarten teachers in schools affiliated with the education directorates of Irbid Governorate. They were selected using random sampling methods. Their demographic characteristics are presented in Table 1.

Table (1): Frequencies and percentages of the study sample by demographic variables

Variables	Categories	Frequency	%
Academic qualifications	Bachelor's	236	77.9
	Postgraduate	67	22.1
Years of experience	< 5 yrs	37	12.2
	5 < 10 yrs	177	58.4
	> 10yrs	89	29.4
Total		**303**	**100%**

Study Instruments and Design

In developing the study tool, the researcher relied on a review of field observations and previous relevant studies that highlighted the importance of team sports activities in developing social skills and values in kindergarten children. This contributed to defining the study's problem and formulating its questions and objectives. To achieve the study's objectives, the researcher designed a questionnaire of three principal axes representing the targeted social skills: cooperation skills, leadership skills, and communication skills. Its items were designed to reflect these axes directly.

The study included two independent variables, namely academic qualifications (bachelor's, postgraduate) and years of experience (less than 5 years, 5 to less than 10 years, 10 years or more). The dependent variables were the role of team sports activities in developing social skills among kindergarten children in the education directorates of Irbid Governorate, in addition to the sample members' performance on the three questionnaire domains (cooperation, leadership, and communication), which was measured by the arithmetic averages of their responses to the items in each domain.

The final version of the instruments (questionnaire) was administered electronically to a purposive sample of 303 kindergarten teachers in public kindergartens affiliated with Irbid Governorate, after obtaining official approval and assuring participants of the confidentiality of their information. The participants' teachers varied in their academic qualifications (bachelor's, postgraduate) and years of experience (less than 5 years, 5 to less than 10 years, 10 years or more). The internal validity of the questionnaire was verified by calculating correlation coefficients between the items and the domains to which they belong, reflecting the tool's internal consistency. Its reliability was confirmed using appropriate statistical methods, enhancing its reliability as a tool for measuring the variables under study, as will be mentioned later.

The face validity of the study instrument was evaluated by a group of 7 faculty members from Jordanian universities, who have expertise in curricula, teaching methods, measurement, theater education, and kindergartens. They assessed the tool's suitability, clarity, and comprehensiveness in addressing the role of team sports activities in developing social skills among kindergarten children. Their feedback suggested some amendments, all were considered. Pearson's correlation coefficients between the study domains and the study overall were extracted to assess the construct validity and reliability of the research instrument. According to the table, the domains' correlation values with the study overall ranged from 0.841 to 0.888, while their combined correlation values with the overall score ranged from 0.549 to 0.663. No item in the study instrument was removed because all correlation values were statistically significant at a significance level of 0.05. Results are detailed in Table 2 below:

Table (2): Results of Pearson correlation coefficient values for the study instrument

Domains	Social	Cognitive	Aesthetic	Psychological	Overall
Cooperation	1				
Leadership skills	**0.620	1			
Social communication skills	**0.549	**0.663	1		
Overall	**0.841	**0.888	**0.853	1	

Table 3 presents the results of Cronbach's alpha coefficients for establishing the instrument's reliability, as shown below:

Table (3): Cronbach's alpha coefficients

Domains	Cronbach's alpha
Cooperation	0.842
Leadership skills	0.905
Social communication skills	0.886
Total	0.926

Table 3 shows that all Cronbach's alpha coefficient values exhibited high values and ranged between 0.842-0.926, indicating that the study tool has high reliability.

A five-point Likert scale (strongly disagree, disagree = 2, neutral 3, agree = 4, and strongly agree = 5) was adopted to assess and analyze the data. To interpret the responses, the arithmetic means of the sample members' responses were calculated. To determine the level of effect, the researcher identified three levels (high, medium, and low) after applying the formula below:

Class range = (highest value – lowest value) / number of levels

$$5\text{-}1 = \frac{4}{3} = 1.33 \text{ added to } \frac{\text{each range}}{3}$$

Accordingly, these mean scores and descriptions will be referred to in evaluating participants' responses as follows: (1-2.33 low, 2.34-3.67 moderate, 3.68-5 high).

Finally, the data extracted from the questionnaires were entered into SPSS, where appropriate statistical analyses were conducted to answer the study questions. These included frequencies, percentages, arithmetic means, standard deviations, and a one-way analysis of variance (ANOVA) test to examine the significance of differences based on the variables of academic qualification and years of experience.

3. Findings and Discussions

1. Role of Team Sports Activities in Developing Social Skills Among Kindergarten Students

Table 4 presents the results of the arithmetic means and standard deviations of participants' responses to the questionnaire. A one-way analysis of variance (ANOVA) was also conducted to examine the role of team sports activities in developing social skills among kindergarten students in the education directorates of Irbid Governorate.

Table (4) Arithmetic means and standard deviations of participants' responses on the Study Scale

Domains	mean	std	level	Confidence Intervals	
				Upper Value	Upper Value
Cooperation	3.86	0.54	high	3.80	3.93
Leadership skills	3.77	0.63	high	3.70	3.84
Social communication skills	3.60	0.52	moderate	3.54	3.66
Overall	3.75	0.48	high	3.69	3.80

The results reported in Table 4 showed that the participants generally perceive team sports activities as playing a significant role (mean 3.75, SD 0.48) in developing various social skills among kindergarten students, as their mean scores of their evaluations ranged between 3.60-3.86. The domain of collaboration registered the highest mean score (M = 3.86, SD = 0.54), suggesting that kindergarten teachers strongly support the effective role that team sports had in promoting cooperative behaviors in early childhood settings. Through training and participation in group games, children learn the importance of teamwork, effective communication, and respect for others, which enhances the spirit of cooperation and positive interaction. In terms of leadership skills, results showed that it obtained a high evaluation (mean 3.77, SD 0.63). This result may be attributed to the fact that involvement in sports activities offers children opportunities to assume leadership roles, such as team leader or activity organizer. This contributes to building leadership skills and enhancing self-confidence, which helps children deal with challenges with confidence and effectiveness. In contrast, social communication was moderate among kindergarten children. This outcome can be explained by the fact that children at ages 4–6 have limited social experience and possess a limited vocabulary and linguistic repertoire, which is immature or incomplete. Furthermore, children's relatively low self-confidence affects their willingness to engage in communication with others. Children's confidence is further undermined when they are unable to accomplish their desired goals through engagement, which makes their communication less effective.

These results support the previous investigations, which emphasized the considerable role sports had on the development of social competence (Azaq & Shtawe, 2024; Erdilanita & Ma’mun, 2025; Al-Hudhud, 2024; Ridwan, 2024; Xie et al, 2025) of kindergarten students. Notably, as reported by the study by Xie et al. (2025), even a 5-week physical training program centered around play can successfully support preschoolers' development of socio-emotional competence. The results of Al-Hudhud's (2024) study also emphasized that interactive games significantly develop skills in cooperation, participation, and advocacy.

Conversely, the results of the current study differ partially from Al-Hawala's (2020) study, which demonstrated significant differences in favor of children who participate in sports activities across all dimensions of social behavior, including communication skills. This suggests that the impact of sports activities can effectively extend to social communication when intentionally designed and implemented.

2. Determining the statistical differences between teachers' perspectives on the role of team sports activities in developing the social skills of kindergarten children, according to years of experience and academic qualifications

The one-way analysis of variance (ANOVA) was employed to determine whether there are statistical significant differences between teachers' perspectives on the role of team sports activities in developing the social skills of kindergarten children, according to years of experience and academic qualifications, as presented in Table 5 below:

Table (5) Results of ANOVA for kindergarten teachers' estimates on each area of the impact of the role of team sports activities in developing social skills among kindergarten students by experience and academic qualifications

Source of variance	Domain	Sum of squares	Degree of freedom	Mean squares	f-value	sig
experience	Cooperation	0.646	2	0.323	1.113	0.330
	Leadership skills	1.333	2	0.667	1.694	0.186
Hotelling's Trac **Value: 0.019, sig.:0.459**	Social communication skills	0.277	2	0.139	0.510	0.601
Qualifications	Cooperation	0.000	1	0.000	0.000	0.983
Hotelling's Trac	Leadership skills	0.587	1	0.587	1.491	0.223
Value: 0.009, sig.:0.452	Social communication skills	0.245	1	0.245	0.901	0.343
Error	Cooperation	86.786	299	.290		
	Leadership skills	117.662	299	.394		
	Social communication skills	81.280	299	.272		
Total	Cooperation	87.438	302			
	Leadership skills	119.809	302			
	Social communication skills	81.932	302			

Results of ANOVA yielded that:

No statistically significant differences at α ≥ 0.05 were found for the influence of years of experience on teachers' perceptions of the role of team sports activities in developing social skills among kindergarten students in the area of cooperation (f = 1.113, sig = 0.330), as this outcome is greater than the significance level of 0.05. This result can be attributed to the teachers' strong desire to promote cooperation among children. Tolerance skills in children are typically not affected by differences in teachers' years of experience. Nevertheless, all teachers are professionals and share a professional foundation in pedagogy, regardless of whether they are new or experienced, and are capable of fostering tolerance skills in their students. Furthermore, all teachers studied how to employ teamwork, group work, and cooperation in their instructions, whether at the undergraduate and postgraduate levels, or through the training they receive during their service. Furthermore, many modern educational methods work to develop cooperation and teamwork among students. The nature of the region in which the study was conducted is interconnected and cohesive, where everyone looks at one another with love, the young help the old, and the old show compassion for the young. This study agreed with the study of Al-Hudhud (2024) and the study of Qadi (2022), which emphasized the importance of popular activities and physical education in developing social skills and developing skills such as cooperation and participation, while the study differed from the study of Azaq and Shatawi (2024), which showed that there were differences in favor of the experimental group during the application of physical activity. It also differed from the study by Jones (2024), which showed that group sports participation has a positive role in achieving the skills of teamwork and cooperation.

Regarding how academic qualifications affect the extent to which team sports activities contribute to kindergarten students developing their social skills, the findings indicate that there were no statistically significant differences at 0.05 for the contribution of academic qualifications to the field of cooperation in kindergarten students' social skill development (F = 0.000, sig = 0.938), which is greater than the significance level of 0.05. This result may be attributed to the fact that female teachers with higher academic qualifications have a remarkable ability to communicate ideas, principles, and information to young students. On the other hand, a teacher with lower qualifications may still possess the ability to develop skills in cooperation, teamwork, and interaction between children. The skill of cooperation encompasses not only information but also the ability to interact and solve problems, which all teachers can master. Furthermore, the team sports activities offered to children may have created learning environments that cater to every child, potentially enhancing their capacity for cooperation. This result is consistent with the study of Al-Hudhud (2024); Qadi (2022), which emphasized the importance of popular activities and physical education in developing social skills and developing skills such as cooperation and participation, while the study differed from the study of Azaq and Shatawi (2024), which showed that there were differences in favor of the experimental group during the application of physical activity, and it also differed from the study of Jones (2024), which showed that group sports participation has a positive role in achieving the skill of teamwork and cooperation.

The impact of team sports on kindergarten children's social skills development, particularly in leadership skills, did not differ statistically significantly at the α ≥ 0.05 level, attributable to years of experience. The value of F was 1.694 with a statistical significance of 0.186, which is greater than the significance level

of 0.05. This result is attributed to the hereditary leadership qualities possessed by female teachers and the ambition to reach the highest ranks and positions in the field of education, and the great desire of female teachers and students to compete in innovating and activating activities and participating in all events offered inside and outside the school that help in developing leadership skills.

Furthermore, kindergarten teachers, irrespective of their years of experience, foster leadership not merely as theoretical knowledge but as practical skills by providing children with opportunities to participate in team sports activities. This result align with the result of Al-Hudhud (2024) and Qadi (2022) who highlighted the importance of popular activities and physical education in developing social skills and developing leadership skills, while it contradicts with the results of Azaq and Shatawi (2024), which found differences in favor of the experimental group during the application of physical activity and did not find an effect on leadership skills. It also differed from the study of Jones (2024), which showed that group sports participation has a positive role in achieving leadership skills among young people.

Moreover, there were no statistically significant differences at the significance level ($\alpha \geq 0.05$) for the effect of team sports activities on developing social skills among kindergarten students in leadership skills attributed to academic qualification, as the value of F reached 1.491, with a statistical significance of 0.223, which is greater than the significance level of 0.05. This outcome is explained by the convergence of teachers with higher degrees and culture, modernity, and new, memory-based modern science, and the haste to present activities and engage with them irrespective of teachers' academic backgrounds. This suggests that activities are not controlled by higher degrees or recent graduates because they necessitate interaction, a love of work, and accomplishment as everyone strives to succeed and establish their worth.

In contrast to the study by Azaq and Shatawi (2024), which demonstrated that there were differences in favour of the experimental group during the application of physical activities and did not give any importance to leadership skills, this study concurred with the study by Al-Hudhud (2024); Qadi (2022) confirmed the importance of popular activities and physical education in developing social skills. It also contrasted with Jones's (2024) study, which found no differences in leadership qualities among participants in group sports.

The effect of team sports activities on kindergarten children’s social communication skills development was not statistically different ($\alpha < 0.05$) based on years of experience; the F value was 0.510, with a statistical significance of 0.601. This outcome may be explained by the fact that all teachers undergo identical training and are part of the same community, including the school and their own residences. Additionally, most teachers manage their curricular and extracurricular activities using the same techniques. Based on my experience in the field of education, it is challenging for seasoned educators to embrace contemporary teaching practices. This result did not reveal any variations in years of experience and concurred with the study by Al-Hudhud (2024), which showed the importance of popular games in fostering social skills. The study differed from that by Azaq and Shatawi (2024), which found no differences in the number of years spent honing social communication skills.

There were no statistically significant differences at the α ≥ 0.05 level for the influence of team sports activities on developing social skills among kindergarten students in social communication skills attributable to the academic qualification, as the value of F obtained 0.901, with a statistical significance of 0.343, which is more than the significance level of 0.05. This outcome may be attributed to the appropriate selection of sports activities that are compatible with developing social communication skills in children. This result may be attributed to the careful selection of sports activities that are appropriate for developing children's social communication skills. Teachers appear to place greater emphasis on designing activities appropriately and ensuring children's engagement with them, regardless of the teacher's academic qualifications. Although all teachers strive to obtain higher academic qualifications, which may play a role in enhancing communication skills through group sports activities, the actual impact of these qualifications does not reveal apparent differences in the level of development of these skills. This result may also be attributed to the fact that the acquisition of social skills, such as communication, does not depend directly on the teacher's qualifications as much as it depends on the nature of the activities provided to children and the extent of their engagement with them.

The results of this study are consistent with the results of both Al-Hudhud (2024) and Qadi (2022), which indicated that academic qualifications have no impact on the development of social skills. On the other hand, its results differed from the study of Azaq and Shatawi (2024), which showed the existence of differences in the development of social skills attributed to academic qualifications, as well as from the study of Jones (2024), which reached similar results with no differences attributed to academic qualifications. The findings of this study are limited to kindergartens affiliated with the educational directorates of Irbid Governorate, the sampled kindergarten children and their teachers, and the second term of the academic year (2024/2025). Therefore, the generalizability of the results is limited to similar educational, social, and temporal contexts and may not extend to different settings.

4. Conclusions

- The study results highlighted the positive impact of group sports activities on the development of social skills among kindergarten children in the education directorates of Irbid Governorate. The arithmetic means were high in the areas of cooperation and leadership, and moderate in the area of social communication. This suggests that such activities help foster teamwork and build leadership skills in children. However, greater emphasis should be placed on enhancing social communication skills through targeted programs designed to support students in this area.
- The findings showed no statistically significant differences in the development of social skills based on variables such as teachers’ years of experience or academic qualifications. This indicates that the influence of group sports activities on children's social skill development remained consistent regardless of these factors.

5. Recommendations

In light of the results of the current study, the researcher suggests paying special attention to the provision of team sports activities in kindergarten, given their critical role in developing social skills and promoting positive interaction among children. It also highlights the need to encourage those in charge of educational institutions to include these activities within modern teaching strategies, as they are an effective means of developing children's personalities and refining their social behaviors. The results also emphasize the importance of raising family and teacher awareness of the impact of these activities on building children's personalities and fostering a spirit of cooperation, tolerance, and leadership. Furthermore, the findings highlight the need to provide educational and community environments that enable children to participate in such activities both inside and outside educational institutions. Furthermore, the results highlight the need for further studies to investigate the positive effects of team sports activities on various aspects of children's lives, including mental health, emotional development, and cognitive abilities. This will contribute to developing a comprehensive vision of the educational role of sports in early childhood.

Declarations

Ethics statement

The study protocol was approved by the Directorates of Education in Bani Kenana, Qasabat Irbid, and Bani Obaid, within Irbid Governorate, in accordance with relevant guidelines and regulations. Official permission was obtained prior to conducting the study, and all procedures involving participants were carried out in accordance with established ethical standards.

Ethical Approval

The study was conducted in coordination with the relevant Directorates of Education in the locations where the research was implemented. All procedures involving human participants were carried out in accordance with commonly accepted ethical standards in educational research and in line with relevant institutional guidelines and regulations. The researchers ensured that participants’ privacy was respected and that all information collected during the study was treated with strict confidentiality and used solely for research purposes.

Consent to Participate

Informed consent to participate in the study was obtained from the participating kindergarten teachers. In addition, informed consent for the participation of the children was obtained from their parents or legal guardians. All participants were informed about the purpose of the study and the voluntary nature of their participation, and they were assured that they could withdraw from the study at any time without any consequences.

Consent for Publication

The participants were informed that the findings of the study may be used for academic publication. All identifying information has been removed to ensure the anonymity and confidentiality of the participants.

Data Availability Statement

The datasets generated and/or analysed during the current study are available from the corresponding author on reasonable request.

Ethics and Publication Consent Statement:

All academic and ethical standards applicable to the preparation of this manuscript have been observed, and the author acknowledges full compliance with all publication-related requirements

Acknowledgment

Special thanks to Jadara University for its encouragement of scientific research, which played an active role in the development of this study and its outcomes.

Declaration of interest

"The authors declare no conflicts of interest".

Author Contributions

The author contributed to the conceptualization, design, data collection, analysis, and writing of this research**.**

Conflicts of Interest

The author declare no conflict of interest.

Funding

This study did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors

References

1. Aboud, Y. Z., & AlAli, R. (2023). Effects of kindergarten education on the social and cognitive development of Saudi and international students. *Journal of International Students, 13*(4), 380–403. https://www.ojed.org/jis/article/view/6578
2. Aguayo, L., Hernandez, I. G., Yasui, M., Estabrook, R., Anderson, E. L., Davis, M. M., ... & Heard-Garris, N. (2021). Cultural socialization in childhood: Analysis of parent–child conversations with a direct observation measure. *Journal of Family Psychology, 35*(2), 138.

3. Akram, S., Zahid, F., & Pervaiz, Z. (2024). Socioeconomic determinants of early childhood development: Evidence from Pakistan. *Journal of Health, Population and Nutrition, 43*(1), 70.
4. Al-Bar, S., & Fadl, Q. (2024). Group sports activities and their role in promoting social communication among middle school students. *Journal of the Sports System, 11*(1), 716–727.
5. Al-Bayyar, A. Z. (2019). The role of cooperative learning in developing environmental awareness among kindergarten children. *Journal of Childhood, 32*(2), 1097–1117.
6. Al-Hafezi, H., & Al-Harbi, G. (2024). Teachers' perspectives on the manifestations of communication disorders and their impact on social skills in kindergarten. *Educational and Psychological Studies (Journal of the Faculty of Education, Zagazig), 29*(135), 323–361.*
7. Al-Hawala, S. M. (2020). Practicing sports activities and their impact on children's positive social behavior in early childhood. *Scientific Journal of Research and Studies in Physical Education, 40*(1), 370–386.
8. Al-Hudhud, H. (2024). The role of popular games in developing social skills from the perspective of early childhood teachers. *Arab Journal of Child Media and Culture, 7*(27), 586–622.
9. Al-Hunaidi, M. (2006). *Artistic activities for kindergarten children.* Cairo: Alam Al-Kutub Distribution.
10. Al-Jayousi, M. B. (2002). *You and I (An introduction to human communication skills).* Riyadh: Arab Bureau of Education for the Gulf States.
11. Al-Mutairi, J., & Al-Abadi, M. (2024). The role of educational activities in developing moral values among kindergarten children in Taif Governorate from the perspective of their teachers. *Scientific Journal of Early Childhood Education, 2*(2), 391–426.
12. Al-Saleh, M. (2017). The role of school integration in developing oral language in deaf children with cochlear implants. *Psychological and Educational Studies, 10*(1), 65–76.
13. Azaq, R., & Shatawi, Y. (2024). The effectiveness of a program based on physical education and sports classes in developing social interaction among children with autism. *Scientific Journal of Special Education, 6*(3), 75–93. doi: 10.1155/2018/1825046
14. Eime, R. M., Young, J. A., Harvey, J. T., Charity, M. J., & Payne, W. R. (2013). A systematic review of the psychological and social benefits of participation in sport for children and adolescents: Informing development of a conceptual model of health through sport. *International Journal of Behavioral Nutrition and Physical Activity, 10*(98), 1–21. DOI: 10.1186/1479-5868-10-98
15. Erdilanita, U., & Ma'mun, A. (2025, January). The role of sports participation on social skill development in early childhood and adolescence. In *International Seminar of Sport and Exercise Science (ISSES 2024)* (pp. 160–181). Atlantis Press. DOI10.2991/978-94-6463-593-5_17
16. Fraser-Thomas, J., Côté, J., & Deakin, J. (2005). Youth sport programs: An avenue to foster positive youth development. *Physical Education & Sport Pedagogy, 10*(1), 19–40. https://doi.org/10.1080/1740898042000334890
17. Gibson, J. L., Ivancevich, J. M., Donnelly, J. H., & Konopaske, R. (2012). *Organizations: Behavior, structure, processes* (14th ed.). New York, NY: McGraw-Hill Irwin.

18. Hosokawa, R., Matsumoto, Y., Nishida, C., Funato, K., & Mitani, A. (2024). Enhancing social-emotional skills in early childhood: Intervention study on the effectiveness of social and emotional learning. *BMC Psychology, 12*(1), 761. DOI: 10.1186/s40359-024-02280-w
19. Ivanović, M. (2024). Contribution of sports to the quality of life in childhood, preadolescence, and adolescence. *Physical Education and Sport Through the Centuries, 11*(2), 67–80. https://doi.org/10.5937/spes2402067I
20. Jones, D. (2024). Impact of team sports participation on social skills development in youth. *American Journal of Recreation and Sports, 12*(1), 24–34. DOI:10.47672/ajrs.2400
21. Maleki, M., Chehrzad, M. M., Kazemnezhad Leyli, E., Mardani, A., & Vaismoradi, M. (2019). Social skills in preschool children from teachers' perspectives. *Children, 6*(5), 64. DOI: 10.3390/children6050064
22. Mokwunye, L. C., & Anyanwu, E. C. (2023). Creativity, a key to early childhood education. *Creative Artist: A Journal of Theatre and Media Studies, 17*(1), 113–124.
23. Murtada, S. (2006). A proposed program to teach children some scientific skills (a quasi-experimental study among a sample of kindergarten children in Damascus). *Damascus University Journal, 22*(2), 101–129.
24. Qadi, M., & Rabouh, P. (2022). The role of physical education and sports classes in developing social cooperation among intermediate school students. *Journal of Scientific Research in Physical Education and Sports, 14*(2), 211–222.
25. Qanawi, H. (2018). *Instilling moral values in preschool children* (Unpublished master's thesis). Omar Al-Mukhtar University, Libya.
26. Ramadan, B. J. (2016). The role of educational, physical, and sports activities in developing social interaction among secondary school students (18–20 years old). *Journal of Sports Creativity, 7*(1), 8–27.
27. Ridwan, R. (2025). The influence of sports on the mental and social development of early childhood. *Siber International Journal of Sport Education, 1*(3), 89–97.* Retrieved from https://review.e-siber.org/SIJSE/article/view/162
28. Xie, S., Lin, N., & Li, H. (2025). Effects of a 5-week play-based physical training on social–emotional competence in Chinese preschool children. *AI Brainchild, 1*(10). https://doi.org/10.1007/s44436-025-00011-5
29. Youssef, A., & Zioud, L. (2013). The role of group play activities in developing leadership skills among kindergarten children (5–6 years old). *Journal of Arts and Humanities, 35*(5), 191–203.
30. Youssef, S. (2024). The role of kindergarten teachers in developing cooperation and participation skills among kindergarten children from their perspectives in the central locality of Port Sudan. *Beirut Multidisciplinary Scientific Journal, 1*(October), 1–23.