



Competitive football as a social learning context: associations with communication, leadership, and teamwork skills among adolescent football players

El fútbol competitivo como un contexto de aprendizaje social: asociaciones con las habilidades de comunicación, liderazgo y trabajo en equipo entre futbolistas adolescentes

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Abstract

Introduction: Competitive football may provide a structured social context in which adolescent players experience repeated opportunities for interpersonal interaction. However, evidence on the associations between football engagement and psychosocial skills among adolescent football players remains limited.

Objective: This study examined the associations between competitive football engagement and communication, leadership, and teamwork skills among adolescent football players.

Methodology: A quantitative correlational design was employed involving 112 male students from a high-performance football academy in Malaysia. Data were collected using validated self-report instruments, and internal consistency was assessed in the present sample. Pearson correlation coefficients with 95% confidence intervals were used to examine the associations among variables.

Results: Football engagement was positively associated with communication ($r = .334$, 95% CI [.158, .489], $p < .001$) and teamwork ($r = .523$, 95% CI [.374, .646], $p < .001$), but not leadership ($r = .138$, 95% CI [-.049, .315], $p = .145$).

Discussion and Conclusion: Higher football engagement was associated with stronger communication and teamwork skills, but not leadership. The findings should be interpreted as associations within this sample and not as evidence that football engagement causes changes in psychosocial skills.

Keywords

Competitive football; youth sport engagement; communication skills; leadership; teamwork; positive youth development.

Resumen

Introducción: El fútbol competitivo puede proporcionar un contexto social estructurado en el que los futbolistas adolescentes experimentan oportunidades repetidas de interacción interpersonal. Sin embargo, la evidencia sobre las asociaciones entre el compromiso con el fútbol y las habilidades psicosociales en futbolistas adolescentes sigue siendo limitada.

Objetivo: Este estudio examinó las asociaciones entre el compromiso con el fútbol competitivo y las habilidades de comunicación, liderazgo y trabajo en equipo en futbolistas adolescentes.

Metodología: Se empleó un diseño cuantitativo correlacional con 112 estudiantes varones de una academia de fútbol de alto rendimiento en Malasia. Los datos se recopilaban mediante instrumentos de autoinforme validados y se evaluó la consistencia interna en la muestra del presente estudio. Se utilizaron coeficientes de correlación de Pearson con intervalos de confianza del 95 % para examinar las asociaciones entre las variables.

Resultados: El compromiso con el fútbol se asoció positivamente con la comunicación ($r = 0,334$; IC del 95 % [0,158, 0,489]; $p < 0,001$) y el trabajo en equipo ($r = 0,523$; IC del 95 % [0,374, 0,646]; $p < 0,001$), pero no con el liderazgo ($r = 0,138$; IC del 95 % [-0,049, 0,315]; $p = 0,145$).

Discusión y Conclusión: Un mayor nivel de compromiso con el fútbol se asoció con mejores habilidades de comunicación y trabajo en equipo, pero no con el liderazgo. Los hallazgos deben interpretarse como asociaciones dentro de esta muestra y no como evidencia de que el compromiso con el fútbol cause cambios en las habilidades psicosociales.

Palabras clave

Fútbol competitivo; compromiso deportivo juvenil; habilidades de comunicación; liderazgo; trabajo en equipo; desarrollo juvenil positivo.

Introduction

Engagement in organised competitive sport may provide a structured context for youth social and interpersonal learning. Football is particularly notable because it requires continuous interaction, coordination, and shared decision-making among players. These characteristics may create opportunities to practise interpersonal skills such as communication, leadership, and teamwork (Steptoe et al., 2019). Recent work published in Retos has likewise highlighted the relevance of psychological and affective processes in the development pathways of young football players and the importance of coach communication in youth football settings (Akbar et al., 2025; Touguinhó et al., 2023).

From a theoretical perspective, youth development through sport can be understood using ecological frameworks such as Bronfenbrenner's Ecological Theory, which emphasises dynamic interactions between individuals and their surrounding environments. Within football settings, these interactions occur during training sessions, tactical discussions, and competitive matches, where players communicate, cooperate, and make collective decisions. Complementing this perspective, the Positive Youth Development (PYD) framework conceptualises sport as a potentially developmental context when programmes intentionally promote competence, confidence, connection, character, and caring (Pink et al., 2020). Recent Retos research has also emphasised the importance of supportive environments and structured educational practices in positive youth sport experiences (Lima et al., 2025; Razali et al., 2024).

Despite growing recognition of the psychosocial relevance of competitive football engagement, empirical evidence on the associations between football engagement and communication, leadership, and teamwork among adolescent football players remains limited. Recent research in Southeast Asia has highlighted coach-athlete communication as an important feature of grassroots football environments (Akbar et al., 2025). In addition, Retos research on youth football curriculum design has emphasised the need to consider broader developmental competencies alongside football-specific preparation (Oliveira et al., 2024). However, research examining competitive football engagement and several psychosocial skills simultaneously among Malaysian adolescent football players remains scarce. Therefore, this study examined the associations between competitive football engagement and communication, leadership, and teamwork skills among adolescent football players in Malaysia.

Literature Review

Theoretical Frameworks for Youth Development through Sport

Ecological perspectives of youth development emphasise that children's development is shaped through interactions within social environments, including family, school, and sport settings. Bronfenbrenner's Ecological Theory suggests that structured environments such as sport teams can provide contexts for social learning. In football settings, interactions occur through training activities, team discussions, and competitive situations in which communication, cooperation, and leadership behaviours are practised. Positive Youth Development (PYD) theory further highlights sport as a developmental context associated with competence, connection, and character, while group processes such as cohesion may also contribute to positive developmental experiences within team sport (Bruner et al., 2014). The extent to which such competencies are supported may depend on programme structure, coaching practices, and the quality of the learning environment (Steptoe et al., 2019; Razali et al., 2024).

This perspective is further supported by Gould and Carson (2008), who argued that organised sport can provide a setting for life-skill learning when coaches intentionally integrate learning opportunities into training and competition. Rather than assuming that life skills emerge automatically from sport involvement, they emphasised the importance of structured learning experiences. Supportive interpersonal processes, including communication and negotiation, may further facilitate life-skill development in youth sport (Camiré et al., 2009). Previous research has examined how young athletes may learn life skills through organised sport, while emphasising the importance of supportive relationships and intentionally designed developmental environments (Holt et al., 2008, 2017). Football has also been discussed as a context in which young people may encounter opportunities for life-skill learning and psychosocial development (Cope et al., 2017).

Empirical Research on Sport Engagement and Social Skill Development



A growing body of research has reported positive associations between sport engagement and social skills among young people. Team sports such as football involve frequent interaction and coordination, which are relevant to communication and cooperative behaviours (Santos et al., 2019). Retos studies have similarly highlighted positive sport experiences, coaching communication, and psychosocial processes as relevant features of youth sport environments (Akbar et al., 2025; Lima et al., 2025). However, leadership may not be associated with sport engagement to the same extent, because leadership opportunities can depend on structured roles, mentorship, and intentional coaching strategies (Coker et al., 2022).

Evidence from sport psychology indicates that communication, leadership, and teamwork are important life skills within organised sport. Cronin and Allen (2017) identified teamwork, leadership, communication, emotional skills, and social competence as important dimensions of life skills associated with quality sport experiences. Evidence from youth futsal further suggests that life-skill development within sport is associated with social behaviours and sport-related values among young players (Nascimento Junior et al., 2022). Their work also suggests that these competencies should not be assumed to emerge automatically from sport involvement; coaching quality, learning opportunities, and athlete engagement are relevant contextual considerations. This distinction supports the present study's focus on engagement rather than frequency, duration, or volume of football participation.

Within Southeast Asia, previous research has examined sport involvement and social-skill development, including teamwork, communication, and leadership among younger populations (Pa et al., 2025). Nevertheless, much of this literature addresses sport involvement in general rather than competitive football engagement as a specific social learning context. Furthermore, relatively few studies have simultaneously examined communication, leadership, and teamwork within the same conceptual framework. Consequently, additional research is warranted to examine how competitive football engagement is associated with these psychosocial competencies among adolescent football players in Malaysia.

Research Gap

Although previous studies report associations between organised sport and psychosocial outcomes, several gaps remain. First, limited evidence specifically examines competitive football engagement as a social learning context among Malaysian adolescent football players. Second, relatively few studies have investigated communication, leadership, and teamwork simultaneously within a single analytical framework. Third, previous research has often focused on general sport involvement without distinguishing the behavioural, emotional, and cognitive engagement assessed by the SEM-CY. Addressing these gaps may contribute to a more precise understanding of psychosocial associations within competitive football settings while informing future research and coaching practice.

Research Objectives

The objectives of this study were:

1. To identify the level of competitive football engagement among adolescent football players.
2. To determine the relationship between competitive football engagement and communication skills.
3. To determine the relationship between competitive football engagement and leadership skills.
4. To determine the relationship between competitive football engagement and teamwork skills.

Research Hypotheses

Based on the study objectives and previous literature, the following null hypotheses were formulated:

H₀₁: There is no significant relationship between the level of engagement in competitive football and the communication skills of adolescent football players.

H₀₂: There is no significant relationship between the level of engagement in competitive football and the leadership skills of adolescent football players.

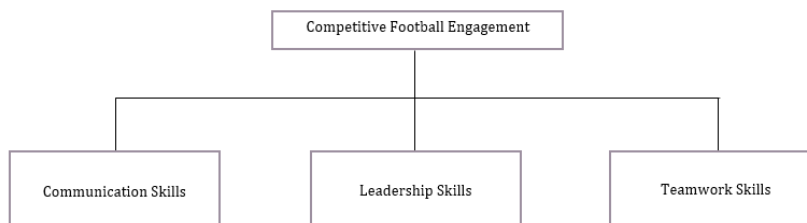
H₀₃: There is no significant relationship between the level of engagement in competitive football and the teamwork skills of adolescent football players.



Conceptual Model

The conceptual model was developed from Positive Youth Development (PYD) theory and social learning perspectives in youth sport. Competitive football engagement was specified as the focal variable, with communication skills, leadership skills, and teamwork skills examined as associated psychosocial outcomes. The model was used to guide bivariate association tests rather than to imply causal direction. It recognises that football engagement and psychosocial skills may be related within the social and learning environment of adolescent football

Figure 1. Conceptual Model of the Study Competitive Football Engagement



Method

Research Design

This study employed a quantitative correlational research design to examine the relationship between competitive football engagement and selected social skills, namely communication, leadership, and teamwork. A correlational approach is appropriate because it allows researchers to examine the strength and direction of relationships between variables without manipulating them (Santos et al., 2019).

Participants

The participants consisted of 112 male students from the National Football Academy Mokhtar Dahari (AMD), Malaysia. These students were between 13 and 15 years old and had at least one year of experience in competitive football. All participants were actively involved in regular academy training sessions and competitive football programmes at the time of data collection. In this study, competitive football engagement refers specifically to behavioural, emotional, and cognitive engagement in organised football activities, as measured using the Sport Engagement Measure for Children and Youth (SEM-CY); it does not measure frequency, duration, volume, years of practice, or training load. Purposive sampling was used to ensure that respondents possessed sufficient experience in the competitive football environment. Because the sample was drawn from a single high-performance academy, generalisability beyond this setting is limited.

Sample Size Justification

A sensitivity analysis was conducted for the primary Pearson correlation analyses using a two-tailed significance level of $\alpha = .05$, target power of .80, and the available sample of 112 participants (Faul et al., 2009). The analysis indicated a minimum detectable absolute correlation of approximately $|r| = .269$. Thus, the sample was sufficiently sensitive to detect correlations of approximately .27 or larger under the specified assumptions. The observed associations for communication ($r = .334$) and teamwork ($r = .523$) exceeded this sensitivity threshold, whereas the observed association for leadership ($r = .138$) did not. This sensitivity analysis provides a statistical justification for the analytical sensitivity of the available sample without implying that statistical power can establish causality.

Table 1. Sample Size Sensitivity Analysis for Pearson Correlation

Parameter	Value
Statistical test	Pearson correlation
Sample size (N)	112
Significance level (α)	.05, two-tailed
Achieved power ($1-\beta$)	.80
Minimum detectable (r)	.269

The sensitivity analysis indicated that the available sample ($N = 112$) could detect a two-tailed Pearson correlation of approximately $|r| \geq .269$ with $\alpha = .05$ and 80% power. This threshold was used to contextualise the magnitude of the observed associations.

Instruments

Four validated self-report questionnaires were used to measure the variables in this study:

Sport Engagement Measure for Children and Youth (SEM-CY) – measuring behavioural, emotional, and cognitive engagement in competitive football.

Engagement in competitive football was operationalised using the Sport Engagement Measure for Children and Youth (SEM-CY), which assesses behavioural, emotional, and cognitive engagement in organised football activities. Higher scores indicate stronger football engagement across these dimensions; the measure does not represent frequency, duration, years of practice, or training load.

Perceived Leadership Communication Questionnaire – Student Report (PLCQ-SR) – measuring communication effectiveness within team contexts.

Teamwork Skills for Youth (TSFY) – assessing cooperation, trust, and coordination among teammates.

Identity Leadership Inventory for Youth (ILI-Y) – measuring leadership behaviours related to team identity and influence.

Instrument Validity

The instruments used in this study were adapted from previously established measures used in sport and youth development research. The questionnaire consisted of four sections measuring competitive football engagement, communication skills, leadership skills, and teamwork skills. Previous studies have reported acceptable validity and reliability for these instruments in youth sport contexts. The present study did not conduct a new local factor-validation study; therefore, no claim of local construct validity is made. Instead, internal consistency was examined directly in the present sample, and the results are reported below. The items were reviewed for content suitability and clarity in relation to adolescent football players in a competitive football setting.

Reliability Analysis

Internal consistency reliability was assessed using Cronbach's alpha based on responses from all 112 participants. The football engagement scale demonstrated good internal consistency ($\alpha = .847$), the communication scale showed excellent reliability ($\alpha = .871$), and the teamwork scale demonstrated acceptable reliability ($\alpha = .788$). The leadership scale yielded $\alpha = .667$, which should be interpreted cautiously and may be considered modest for a brief exploratory psychosocial scale. These sample-specific coefficients provide direct evidence of internal consistency for the data analysed in the present study.

Table 2. Reliability Analysis of Study Instruments

Instrument	Number of Items	Cronbach's Alpha
Football Engagement (SEM-CY)	10	.847
Communication	12	.871
Teamwork	8	.788
Leadership	5	.667

Data Collection Procedure

Data collection was conducted face-to-face at the Mokhtar Dahari Academy following formal approval from the academy management. Prior to questionnaire administration, respondents were briefed on the purpose of the study, instructions for completion, and confidentiality assurances. This procedure is consistent with recommendations emphasising the importance of supportive and ethically sound research environments when conducting youth sport research (Newman et al., 2021). Engagement was voluntary, and written parental consent was obtained in accordance with ethical guidelines involving minors.

Statistical Assumption Testing

Prior to conducting Pearson correlation and exploratory multiple regression analyses, the assumptions of normality, linearity, homoscedasticity, independence of residuals, and multicollinearity were examined. Normality was assessed using skewness, kurtosis, histograms, and normal probability plots.

The skewness values ranged from -0.718 to -0.105 , while kurtosis values ranged from -0.330 to 0.592 , indicating acceptable normality for parametric analyses. Histograms and normal P-P plots further supported the normal distribution of the standardised residuals. Scatterplots of standardised residuals demonstrated no obvious pattern, indicating that the assumptions of linearity and homoscedasticity were satisfied. The Durbin-Watson statistic (1.138) indicated acceptable independence of residuals, while tolerance (1.000) and variance inflation factor ($VIF = 1.000$) values confirmed the absence of multicollinearity. Overall, all assumptions required for Pearson correlation and exploratory multiple regression analyses were satisfactorily met.

Results

Competitive Football Engagement among Adolescent Football Players

The descriptive statistical analysis indicated that respondents demonstrated a high level of competitive football engagement ($M = 4.42$, $SD = 0.31$), reflecting strong emotional, cognitive, and behavioural engagement in organised football activities. This suggests that the respondents reported consistently high levels of engagement in organised football activities.

Table 3. Descriptive Statistical Analysis of Competitive Football Engagement, Communication, Teamwork, and Leadership

	N	Minimum	Maximum	Mean	Std. Deviation
Football engagement	112	3.40	5.00	4.4232	.31221
Communication	112	3.00	4.58	3.7403	.35650
Teamwork	112	2.63	5.00	4.1496	.45669
Leadership	112	2.20	5.00	4.1125	.59353
Valid N (listwise)	112				

The relatively small standard deviation reflects limited variability in reported football engagement within this high-performance academy sample. Because SEM-CY measures behavioural, emotional, and cognitive engagement rather than frequency or training volume, the descriptive result should be interpreted as indicating consistently high self-reported engagement, not as evidence of greater training frequency.

Overall, respondents reported a high level of competitive football engagement. This finding is consistent with the structured nature of academy-based football environments, but it should not be interpreted as evidence that engagement itself produces psychosocial development.

The Relationship Between Competitive Football Engagement and Communication Skills

Pearson correlation analysis revealed a significant positive relationship between football engagement and communication skills ($r = .334$, 95% CI [.158, .489], $p < .001$). The confidence interval did not include zero, indicating a statistically significant positive association. This result should be interpreted as an

association within the present sample rather than as evidence that football engagement causes changes in communication skills.

Table 4. The Relationship Between Competitive Football Engagement and Communication Skills

	Football engagement	Communication
Pearson Correlation	1	.334**
Sig. (2-tailed)		<.001
N	112	112
Pearson Correlation	.334**	1
Sig. (2-tailed)	<.001	
N	112	112
95% CI for r	[.158, .489]	

** Correlation is significant at the 0.01 level (2-tailed).

The magnitude of the correlation suggests a moderate relationship, indicating that higher competitive football engagement is associated with higher communication skills, although it is not the sole determinant. The statistically significant value at the 0.01 level confirms that the relationship is unlikely to have occurred by chance. This finding is consistent with previous literature which highlights communication as a fundamental component of team sports such as football. Santos et al. (2019) emphasised that continuous interaction during training and competition is associated with players' ability to exchange information, coordinate movements, and establish shared understanding within the team. Similarly, Sulistiyono et al. (2021a) reported positive associations between game-based learning environments in youth football and players' communication behaviours through active participation and real-game experiences.

Moreover, Newman et al. (2021) noted that supportive sport environments characterised by frequent dialogue and interpersonal engagement are associated with communication skills among youth athletes. The significant relationship identified in the present study supports this view, suggesting that sustained engagement in competitive football provides repeated opportunities for verbal and non-verbal communication among teammates. Overall, the findings indicate that engagement in competitive football is positively associated with communication skills among adolescent football players reinforcing the view that team-based sport environments may serve as meaningful social learning contexts. Accordingly, null hypothesis H_{01} was rejected, indicating a significant positive relationship between competitive football engagement and communication skills among adolescent football players.

The Relationship Between Competitive Football Engagement and Leadership Skills

No significant relationship was found between football engagement and leadership skills ($r = .138$, 95% CI $[-.049, .315]$, $p = .145$). The confidence interval included zero, indicating that the data did not provide sufficient evidence of a statistically significant association. The weak positive coefficient should therefore be interpreted cautiously.

Table 5. The Relationship Between Competitive Football Engagement and Leadership Skills

	Football engagement	Leadership
Pearson Correlation	1	.138
Sig. (2-tailed)		.145
N	112	112
Pearson Correlation	.138	1
Sig. (2-tailed)	.145	
N	112	112
95% CI for r	[-.049, .315]	

The weak and non-significant relationship observed is consistent with previous literature which emphasises that leadership development in youth sport does not occur automatically through participation. Coker et al. (2022) reported that while youth football players often possess awareness of leadership roles, they frequently perceive limited opportunities to actively practise leadership behaviours. Similarly, Van Dalfsen et al. (2021) highlighted that many coaches acknowledge the importance of shared leadership but lack structured strategies or clear philosophies to intentionally develop leadership skills among players.

Furthermore, Hochi et al. (2019) reported that structured leadership or self-leadership programmes were associated with improvements in leadership development among youth athletes. Previous research suggests that, without intentional intervention, leadership development may remain informal, inconsistent, and highly dependent on individual experiences. Overall, the findings of this study indicate that while competitive football provides a suitable environment for social interaction, leadership skills among adolescent football players may require purposeful training, structured leadership opportunities, and supportive coaching practices in order to develop effectively. Accordingly, null hypothesis H_{02} was not rejected, indicating that no significant relationship was found between competitive football engagement and leadership skills among adolescent football players.

The Relationship Between Competitive Football Engagement and Teamwork Skills

A significant positive relationship was found between competitive football engagement and teamwork skills ($r = .523$, 95% CI [.374, .646], $p < .001$). The confidence interval did not include zero, indicating a statistically significant positive association. This result should be interpreted as a relationship observed in the present sample and not as evidence of a causal effect of football engagement on teamwork skills.

Table 6. The Relationship Between Competitive Football Engagement and Teamwork Skills

	Football engagement	Teamwork
Pearson Correlation	1	.523**
Sig. (2-tailed)		<.001
N	112	112
Pearson Correlation	.523**	1
Sig. (2-tailed)	<.001	
N	112	112
95% CI for r	[.374, .646]	

** Correlation is significant at the 0.01 level (2-tailed).

The strength of the correlation suggests a moderate to strong relationship, indicating that higher competitive football engagement is strongly associated with stronger teamwork skills among adolescent football players. The statistically significant result at the 0.01 level confirms that the relationship is robust and unlikely to have occurred by chance. Overall, these findings indicate that competitive football engagement is strongly associated with teamwork skills among adolescent football players, highlighting the potential role of team-based sport environments as contexts for collaborative behaviours and collective responsibility. Accordingly, null hypothesis H_{03} was rejected, indicating a significant positive relationship between competitive football engagement and teamwork skills among adolescent football players.

Exploratory Multiple Regression Analysis Examining the Statistical Associations Between Psychosocial Skills and Competitive Football Engagement

In addition to testing the study hypotheses through Pearson correlation analysis, a supplementary multiple regression analysis was performed to explore the extent to which communication skills, leadership skills, and teamwork skills were associated with competitive football engagement. The purpose of this analysis was not to establish causality but to identify which psychosocial variables demonstrated the strongest statistical association with competitive football engagement. Accordingly, this exploratory regression analysis should be interpreted as supplementary evidence describing the relative statistical associations among the study variables rather than as confirmation of the proposed conceptual framework, in which competitive football engagement was theorised as the independent variable. Consistent with exploratory modelling procedures in sport psychology research, football engagement was specified as the dependent variable to determine which social skills were most strongly linked to sustained engagement in competitive football among adolescent football players.

To further examine the relative contribution of communication skills, teamwork skills, and leadership skills towards competitive football engagement, a multiple linear regression analysis was conducted. Competitive football engagement was entered as the dependent variable, while communication, teamwork, and leadership skills were entered simultaneously as predictor variables.

The results indicated that the overall regression model was statistically significant, $F(3, 108) = 17.394$, $p < .001$. The model produced an R value of .571 and an R^2 value of .326, indicating that communication,



teamwork, and leadership skills collectively accounted for 32.6% of the variance in competitive football engagement. The Adjusted R^2 value of .307 further suggests that the model retained substantial explanatory power after adjusting for sample size and the number of predictors.

Table 7. Multiple Regression Analysis Predicting Competitive Football Engagement

Predictor	B	β	t	p
Communication	.223	.254	2.899	.005
Teamwork	.332	.485	5.859	< .001
Leadership	-.048	-.092	-1.041	.300

The analysis revealed that teamwork skills emerged as the variable most strongly associated with football engagement ($\beta = .485$, $p < .001$), followed by communication skills ($\beta = .254$, $p = .005$). Both variables demonstrated significant positive statistical associations with football engagement. In contrast, leadership skills did not significantly predict football engagement ($\beta = -.092$, $p = .300$). The resulting regression equation was:

$$\text{Football Engagement} = 2.413 + 0.223(\text{Communication}) + 0.332(\text{Teamwork}) - 0.048(\text{Leadership}).$$

These findings indicate that higher levels of teamwork and communication skills are associated with higher levels of engagement in competitive football. However, leadership skills did not demonstrate a unique contribution when communication and teamwork were simultaneously considered within the regression model.

Discussion

This study aimed to examine the relationship between engagement in competitive football and communication skills, leadership, and teamwork among adolescent football players. Overall, the findings revealed different patterns across each social skill construct, thereby providing a more comprehensive understanding of the role of competitive football as a social learning context associated with youth development.

With regard to Research Objective 1 (R01), the findings indicated that adolescent football players demonstrated a high level of engagement in competitive football. This consistent involvement reflects strong commitment to training and competition, as well as the presence of a structured sport environment. These findings are consistent with Santos et al. (2019) and Newman et al. (2021), who emphasised that sustained engagement is a fundamental prerequisite for social skill development in youth sport. Nevertheless, high engagement alone does not necessarily ensure balanced development across all social skills. This finding is consistent with the study by Coker et al. (2022), who reported that although youth football players exhibit strong awareness of commitment and responsibility as team members, high engagement alone does not ensure automatic development of psychosocial skills without systematically planned training approaches.

For Research Objective 2 (R02), the findings revealed a significant positive relationship between engagement in competitive football and communication skills. This result strengthens existing literature suggesting that communication is one of the most frequently practised skills in team sports due to continuous interaction during training and competition (Santos et al., 2019; Sulistiyono et al., 2021a). Active involvement in real-game situations provides repeated opportunities for students to practise both verbal and non-verbal communication, which may provide meaningful opportunities to practise communication skills. Within dynamic game contexts, students are constantly engaged in delivering instructions, providing feedback, and coordinating movement with teammates.

In relation to Research Objective 3 (R03), the findings indicated no significant relationship between engagement in competitive football and leadership skills. Although the direction of the relationship was positive, its strength was weak and not statistically significant. This finding suggests that competitive football engagement alone may not be sufficient to support leadership development. This result aligns with studies by Coker et al. (2022) and Van Dalfsen et al. (2021), who argued that leadership development requires intentional opportunities, structured training, and coaching philosophies that support



shared leadership. Without specific interventions, engagement experiences may be more strongly associated with technical and tactical skills than with leadership skills. This finding is further supported by Hochi et al. (2019), who demonstrated that significant improvements in leadership among youth football players occur only when structured leadership or self-leadership programmes are deliberately implemented.

In contrast, findings for Research Objective 4 (R04) revealed a significant and strong positive relationship between engagement in competitive football and teamwork skills. This result suggests that teamwork represents the social competency most strongly associated with competitive football engagement among the variables examined in this study. Santos et al. (2019) and Sulistiyono et al. (2021a) explained that the cooperative nature of football, characterised by role interdependence and collective goals, may provide meaningful opportunities to practise collaboration and shared responsibility. These findings support literature emphasising that football requires continuous coordination and mutual dependence among players, suggesting that football engagement may provide meaningful opportunities to practise teamwork skills.

The significant association between teamwork and football engagement is consistent with literature highlighting teamwork as an important psychosocial competency in team-sport contexts (McEwan & Beauchamp, 2020). Football requires players to coordinate actions and work interdependently toward shared objectives, which may help explain the observed association. However, the cross-sectional design does not establish whether stronger teamwork is associated with greater engagement, whether engagement is associated with stronger teamwork, or whether both are influenced by other factors.

Communication skills were also positively associated with football engagement, although the association was smaller than that observed for teamwork. This finding is consistent with research emphasising communication as important for tactical coordination, information exchange, and interpersonal interaction in football teams (Sulistiyono et al., 2021a; Newman et al., 2021). The association may reflect the reciprocal nature of interaction in team sport, but its direction cannot be determined from the present data.

Leadership skills were not significantly associated with football engagement within the regression model ($\beta = -.092$, $p = .300$). This result is consistent with research suggesting that leadership opportunities may depend on intentional role assignment, mentorship, and structured coaching practices rather than engagement alone (Coker et al., 2022; Hochi et al., 2019; Van Dalfsen et al., 2021). The present findings therefore provide limited evidence for an association between overall football engagement and leadership skills in this sample.

Taken together, the bivariate findings indicate that communication and teamwork were associated with football engagement, whereas leadership was not. These patterns are compatible with a Positive Youth Development perspective in which sport may provide a context for connection and competence, while specific psychosocial outcomes may depend on the quality and intentionality of the learning environment. The findings should nevertheless be interpreted as correlational evidence.

The contrast between communication, teamwork, and leadership also highlights the importance of distinguishing general football engagement from specific psychosocial outcomes. Communication and teamwork are embedded in many routine team interactions, whereas leadership may depend more strongly on structured responsibilities, decision-making opportunities, and reflective coaching. This interpretation is consistent with the life-skills literature, which cautions against assuming that sport involvement automatically produces psychosocial development (Gould & Carson, 2008; Holt et al., 2017; Cronin & Allen, 2017).

For football academies and youth sport organisations, the findings suggest that psychosocial learning opportunities may be worth integrating intentionally into training. Communication and teamwork can be incorporated into collaborative tasks, while leadership may be supported through rotating responsibilities, peer mentoring, shared decision-making, and guided reflection. These are practice implications rather than evidence that such strategies would necessarily cause changes in the measured outcomes. Development within elite youth football academies may also be shaped by multiple contextual and interpersonal factors beyond athletes' engagement alone (Mills et al., 2012).

Although significant associations were observed, the findings should be interpreted cautiously because other unmeasured variables may also be associated with communication, leadership, and teamwork. Potential confounding factors include coaching quality, previous competitive level and experience, baseline personality characteristics, family support, peer relationships, socioeconomic circumstances, and biological maturation. Because these factors were not measured, the observed associations cannot be attributed uniquely to football engagement.

Implications for Theory and Practice

These findings may assist football academies and youth sport organisations in designing programmes that intentionally integrate psychosocial skill learning alongside technical and tactical training. For football academies, intentional coaching strategies may provide opportunities to integrate life-skill learning alongside technical and tactical development (Gould & Capalbo, 2019). The non-significant association between football engagement and leadership suggests that leadership may warrant more targeted opportunities and coaching practices. Coach education and training may therefore be relevant considerations when designing sport environments intended to support athletes' life-skill development (Anderson-Butcher et al., 2025). Recent Retos research similarly emphasises structured coaching communication, positive sport experiences, and developmental approaches in youth sport settings (Akbar et al., 2025; Lima et al., 2025).

From a practical perspective, coaches may consider incorporating leadership-oriented activities such as captaincy rotations, peer mentoring, collaborative decision-making tasks, and reflective discussions into training programmes. Such an intentional approach is consistent with recommendations that life skills should be deliberately incorporated into the design and delivery of youth sport programmes (Koh & Camiré, 2015; Kramers et al., 2023). Structured coaching models may also provide a useful framework for integrating skill- and character-related learning within youth football environments (Sulistiyono et al., 2021b). Such practices are consistent with a developmental approach, but the present cross-sectional study did not test their effectiveness.

Limitations and Future Research

Several limitations should be acknowledged. First, the cross-sectional correlational design limits the ability to infer temporal order or causal relationships between football engagement and psychosocial skills. Second, the sample was drawn from a single high-performance football academy in Malaysia using purposive sampling, which limits generalisability to other youth sport settings and competitive levels. Third, the study relied on self-report questionnaires, which may be influenced by social desirability or subjective perceptions. Fourth, only male participants were included, limiting applicability to female football players. Finally, potentially relevant variables—including coaching quality, family support, previous competitive level and experience, baseline personality characteristics, peer relationships, socioeconomic circumstances, and biological maturation—were not assessed and may have contributed to the observed associations.

Future studies should use longitudinal or prospective designs, recruit larger and more diverse samples from multiple football academies and competitive levels, include female athletes, and consider multi-informant or behavioural measures. Examining coaching quality, family support, previous competitive experience, personality, and biological maturation as potential confounders would also help clarify the conditions under which football engagement is associated with psychosocial skills.

Future research could also use mixed-method approaches involving interviews, observations, and coach evaluations to examine how communication, leadership, and teamwork are experienced within competitive football environments. Such designs may help distinguish engagement-related associations from effects attributable to coaching practices or other contextual factors.

Despite these limitations, the present study contributes evidence on the associations between competitive football engagement and selected psychosocial skills among adolescent football players. The findings provide a basis for further research examining the social learning processes that may occur within structured football environments.

In addition, the findings of this study should be interpreted with caution because the participants were selected using purposive sampling from a single high-performance football academy in Malaysia. Therefore, the findings cannot be generalised to all adolescent football players or youth football populations



with different competitive backgrounds, training environments, or demographic characteristics. Future studies are encouraged to recruit larger and more diverse samples from multiple football academies and competitive settings to enhance the generalisability of the findings.

Conclusions

This study provides evidence of significant positive associations between competitive football engagement and communication and teamwork skills among adolescent football players. No statistically significant association was observed between football engagement and leadership skills. These findings indicate that adolescent football players reporting higher football engagement also tended to report higher communication and teamwork scores in this sample. However, the cross-sectional correlational design does not establish temporal order or causality, and the results should not be interpreted as evidence that football engagement develops these skills. The findings are specific to male adolescent players from one high-performance football academy and should be interpreted with appropriate caution.

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