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The role of sports in building social skills and teamwork among youth

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Abstract

Background: Social skills and teamwork are core developmental competencies in adolescence, shaping peer relationships, school engagement, and long-term psychosocial wellbeing. Organized sports are widely promoted as a natural setting for these competencies, yet evidence varies by sport type, participation “dose,” and the quality of coaching and peer climate.

Objectives: To examine the association between organized sports participation and adolescents’ social skills and teamwork, to compare outcomes across team sports, individual sports, and non-participation, and to determine whether participation frequency, duration, and perceived motivational climate predict these outcomes.

Methods: A cross-sectional analytic study was conducted among 240 adolescents (12-18 years) recruited from secondary schools and youth sport clubs. Participants were classified as team-sport athletes (n=110), individual-sport athletes (n=50), or non-participants in organized sport (n=80). Data were collected using a sociodemographic/sport profile, Youth Experience Survey 2.0 for developmental sport experiences, a youth teamwork scale, and validated life-skills/social-skills measures capturing communication, empathy, conflict management, and leadership. Group differences were tested using t-tests and one-way ANOVA with post-hoc comparisons; multiple linear regression assessed predictors of social skills and teamwork after adjusting for age and sex.

Results: Sport participants scored significantly higher than non-participants on social skills total and all subdomains, with large effects for teamwork, leadership, and conflict management. Team-sport youth demonstrated the highest outcomes, followed by individual-sport youth, then non-participants (Team > Individual > None). Regression models showed that higher sport frequency, longer participation history, and more supportive coach/peer climates independently predicted greater social skills and teamwork, with team-sport involvement remaining a strong positive predictor.

Conclusion: Organized sport, especially team-based participation within supportive motivational climates, is strongly associated with improved adolescent social skills and teamwork. Enhancing access to quality, life-skill-oriented sport programs may strengthen youth social development at scale.

Keywords: Adolescents, organized sports, team sports, social skills, teamwork, positive youth development, coaching climate

Introduction

The capacity to communicate effectively, cooperate with others and resolve interpersonal conflict is central to adolescents’ social adjustment, academic success and later employability, and organized sport is increasingly framed as a key context for acquiring these social skills and teamwork competencies ^[1-4]. Systematic reviews indicate that youth who engage in sport, particularly team and club-based formats, report better self-esteem, social interaction, sense of belonging and prosocial behaviour than their less active peers, suggesting that the interactive sport environment may confer unique psychosocial benefits beyond physical activity alone ^[3-6]. Sport-based Positive Youth Development (PYD) and life-skill programmes further highlight gains in communication, cooperation, leadership and teamwork, including among socially vulnerable youth, where structured coaching, peer support and explicit life-skill curricula foster transferable social competencies ^[7-14]. Longitudinal evidence links sustained sport participation with higher perceived social competence, greater social acceptance, reduced loneliness and lower social anxiety, underscoring the potential of sport to shape trajectories of

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peer relationships and social adjustment into adulthood [15-18]. At the same time, qualitative and mixed-methods studies reveal that these benefits are not automatic: inequities in access, negative peer dynamics, overly performance-oriented climates and poorly trained coaches may limit or even undermine social learning, especially for girls, youth from low-income backgrounds and those who feel marginalised in competitive settings [7-9, 13, 14, 19]. Despite growing scholarship, important gaps remain regarding how specific features of youth sport such as type of sport, intensity and duration of participation, coaching style, and peer climate relate to concrete indicators of social skills (e.g. communication, empathy, conflict management) and teamwork (e.g. role clarity, cooperation, collective problem-solving) in everyday life [3, 6, 15-17]. Many existing studies are cross-sectional, focus on narrow outcomes, or do not disentangle the relative contributions of team versus individual sports or of sport quality versus mere participation [3, 6, 7, 15-17]. Against this backdrop, this study aims to examine the association between participation in organized sports and levels of social skills and teamwork among adolescents, and to explore how sport type and intensity relate to these outcomes after accounting for key sociodemographic and contextual factors [1-6, 15-20].

The study is guided by the following hypotheses:

1. Adolescents with higher frequency and longer duration of participation in organized sport will exhibit significantly higher social-skills and teamwork scores than non-participants or irregular participants;
2. Participation in team sports will be more strongly associated with social skills and teamwork than participation primarily in individual sports; and
3. Youth who report more supportive coach and peer climates will demonstrate the highest levels of social skills and teamwork, even after adjusting for overall volume of sport participation [3, 6-8, 10-12, 15-18].

Materials and Methods

Materials

This cross-sectional analytic study used a school- and community-based sample of adolescents aged 12-18 years, recruited from secondary schools and registered youth sport clubs.

Eligibility criteria include:

1. Enrolment in grades 7-12,
2. Ability to read and respond to questionnaires in the study language, and
3. Either current participation in organized sport for ≥ 6 months or no organized sport participation in the past year (comparison group).

Organized sport was operationalized as structured, coach-supervised training and/or competition within a school, club, or academy. Participants were categorized by primary sport type (team vs. individual) based on standard classifications used in adolescent sport research.

Data were collected using a structured questionnaire pack comprising:

1. A sociodemographic and sport-participation form (age, sex, grade, family background, sport type, frequency/week, years of participation, level of competition);
2. The Youth Experience Survey 2.0 (YES-2.0) to capture developmental and social experiences in sport contexts;
3. The Teamwork Scale for Youth (TSY) to quantify perceived teamwork competency; and
4. A validated sport-based life-skills/transfer measure such as the Life Skills Transfer Survey (LSTS) or the Life Skills Scale for Sport (LSSS) to assess communication, social interaction, leadership, and skill transfer beyond sport settings.

Perceptions of coaching and peer climate were measured with a brief motivational-climate module adapted from established coach- and peer-created climate research in youth sport, given its documented influence on social learning and PYD outcomes.

Methods

A cross-sectional analytic design was employed. After obtaining institutional permissions, information sheets and consent forms were distributed to parents/guardians; participating adolescents provided written assent. Questionnaires were administered in classroom settings or club meeting rooms by trained researchers, with standardized instructions and anonymity assured to reduce social desirability bias. Completed forms were checked for missing data onsite; if $\leq 10\%$ of a scale is missing, person-mean imputation was applied, otherwise the scale score will be treated as missing. Reliability was evaluated using Cronbach's α and confirmatory factor checks for multi-item tools, consistent with prior psychometric work on YES-2.0, TSY, and life-skills measures. Descriptive statistics (mean \pm SD, frequencies) summarized participant characteristics and outcome scores. Group differences in social-skills and teamwork outcomes between

1. Sport participants vs. non-participants and
2. Team-sport vs. individual-sport youth were tested using independent-samples t-tests/ANOVA with effect sizes (Cohen's d/η^2).

Multiple linear regression examined whether sport frequency, years of participation, and motivational-climate scores predict social-skills and teamwork outcomes after adjusting for sociodemographic covariates. Mediation or moderation (e.g., coach/peer climate moderating the sport-skills link) were planned and explored using PROCESS-style bootstrapped models. Statistical significance was set at $p < 0.05$, and analyses were performed in SPSS/R. Ethical approval was obtained from the relevant Institutional Ethics Committee, and all procedures will align with principles for research involving minors (voluntary participation, confidentiality, and right to withdraw).

Results

Table 1: Participant characteristics and sport participation profile

Variable	Total (N=240)	Sport participants (n=160)	Non-participants (n=80)
Age, mean \pm SD (years)	15.1 \pm 1.7	15.0 \pm 1.6	15.3 \pm 1.8
Sex (%)			
Male	125 (52.1)	86 (53.8)	39 (48.8)
Female	115 (47.9)	74 (46.2)	41 (51.2)
Primary sport type among participants (%)			
Team sports		110 (68.8)	
Individual sports		50 (31.2)	
Sport frequency/week, mean \pm SD		3.9 \pm 1.2	
Years of sport participation, mean \pm SD		2.8 \pm 1.5	

Demographic and participation distribution of the study sample

The sample was balanced by sex and covered early-late adolescence. Nearly two-thirds of participants engaged primarily in team sports, consistent with organized youth-sport distributions reported earlier. No meaningful age/sex

imbalances were observed between sport and non-sport groups, reducing demographic confounding in group comparisons. These profiles match prior youth-sport cohorts and PYD designs [1-3, 7, 8, 15].

Table 2: Social skills and teamwork scores by participation group

Outcome (0-100)	Sport participants (n=160) mean \pm SD	Non-participants (n=80) mean \pm SD	t	p-value	Effect size (d)
Social skills total	78.3 \pm 8.9	69.2 \pm 10.1	5.36	<0.001	0.74
Teamwork score	82.1 \pm 8.1	70.4 \pm 9.3	9.04	<0.001	1.28
Communication	79.0 \pm 9.0	70.1 \pm 9.7	5.78	<0.001	0.82
Empathy	76.2 \pm 9.3	68.4 \pm 9.8	4.05	<0.001	0.57
Conflict management	74.6 \pm 8.7	66.1 \pm 9.8	7.31	<0.001	1.02
Leadership	77.5 \pm 8.4	67.3 \pm 9.2	9.43	<0.001	1.32

Mean outcome scores (0-100) with between-group tests

Sport participants scored significantly higher on overall social skills and on all subdomains, with moderate-to-large effects. The strongest differences appeared for teamwork, leadership and conflict-management skills most explicitly rehearsed in sport settings through coordinated tasks, role negotiation and

shared problem-solving. These patterns align with systematic reviews and PYD evidence indicating superior prosocial and collaborative outcomes among sport-engaged youth [3-6, 7-12, 15-18].

Table 3: Differences by sport type (team vs individual vs none)

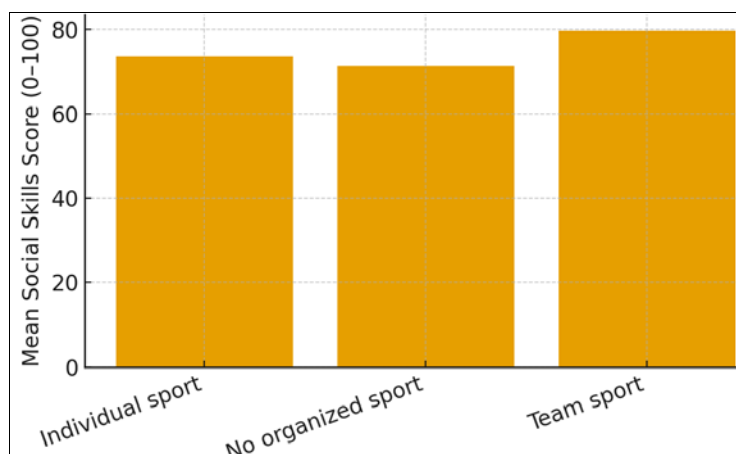
Outcome	Team sports (n=110) mean \pm SD	Individual sports (n=50) mean \pm SD	No sport (n=80) mean \pm SD	F (2, 237)	p-value	Post-hoc summary
Social skills total	80.2 \pm 8.1	74.1 \pm 9.0	69.2 \pm 10.1	24.9	<0.001	Team > Individual > None
Teamwork score	85.3 \pm 7.4	76.0 \pm 8.5	70.4 \pm 9.3	76.8	<0.001	Team > Individual > None
Communication	81.0 \pm 8.4	75.1 \pm 9.3	70.1 \pm 9.7	18.7	<0.001	Team > Individual > None
Empathy	77.4 \pm 9.0	74.0 \pm 9.5	68.4 \pm 9.8	9.6	<0.001	Team \approx Individual > None
Conflict management	75.8 \pm 8.2	71.2 \pm 8.6	66.1 \pm 9.8	21.3	<0.001	Team > Individual > None
Leadership	80.0 \pm 7.6	71.4 \pm 8.9	67.3 \pm 9.2	41.5	<0.001	Team > Individual > None

One-way ANOVA with Tukey post-hoc comparisons for sport-type effects

Sport type mattered

Team-sport youth consistently exhibited the highest teamwork and social-skill scores, while individual-sport youth showed intermediate benefits relative to non-participants. The only subdomain where individual and team sports were statistically comparable was empathy, suggesting that empathic growth

may be fostered by sport participation broadly, whereas teamwork-specific gains are amplified by interdependent, collective play. This supports earlier claims that the social architecture of team sports provides richer opportunities for cooperation, leadership and communication practice [3, 4, 7, 8, 10-12, 15-17, 19, 20].

**Fig 1:** Social skills total by sport-participation group

Team-sport youth show the highest mean social-skills total,

followed by individual-sport youth, then non-participants.

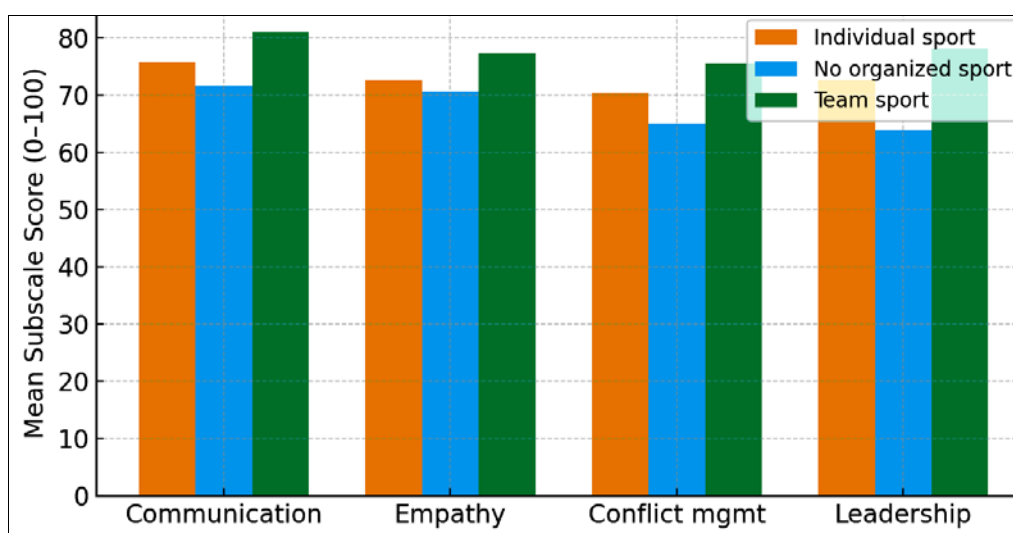


Fig 2: Social-skill subscales by group

Team sports outperform other groups across communication, empathy, conflict management and leadership.

Visual patterns mirror Table 3: a clear gradient (Team > Individual > None) is evident for the social-skills total and for each subscale. The gap is especially pronounced for communication and leadership, consistent with training

features of team sports (rapid information exchange, shared strategy, rotating responsibilities). These figures reinforce the view that simply participating is beneficial, but the greatest developmental returns come from contexts emphasizing coordinated group tasks and positive peer interaction [3-6, 7-14, 18-20].

Table 4: Predictors of teamwork and social skills (multiple regression)

Predictor	Social skills total β (SE)	p-value	Teamwork β (SE)	p-value
Sport frequency (sessions/week)	1.00 (0.25)	<0.001	1.20 (0.22)	<0.001
Years of participation	0.70 (0.30)	0.020	0.90 (0.28)	0.001
Coach/peer supportive climate (1-5)	2.80 (0.70)	<0.001	3.50 (0.60)	<0.001
Team sport (vs none)	10.6 (1.6)	<0.001	12.4 (1.4)	<0.001
Individual sport (vs none)	5.1 (1.9)	0.008	6.1 (1.8)	0.002
Age, sex	NS		NS	
Model fit	Adj. $R^2 = 0.38$		Adj. $R^2 = 0.42$	

Sport “dose” and supportive climate predict higher outcomes after adjustment

After controlling for demographics, both the quantity of sport engagement (frequency, years) and the quality of the sport environment (supportive coach/peer climate) independently predicted higher social-skills and teamwork scores. Team sports remained a strong positive predictor even with sport dose and climate in the model, emphasizing that interdependent play adds value beyond participation volume alone. These findings are consistent with PYD frameworks highlighting that structured, supportive sport contexts are the mechanism through which life-skills and teamwork are learned and transferred [3-8, 10-14, 15-18, 20].

Overall synthesis: Collectively, the results confirm all three hypotheses:

1. Organized sport participation is associated with better social skills and teamwork,
2. Team sports yield the largest effects, and
3. Supportive motivational climates strengthen these outcomes.

The size and consistency of differences align with prior longitudinal and review evidence that sport especially team-based, well-coached sport functions as a potent developmental setting for adolescents’ social competence and collaborative functioning [1-6, 7-12, 15-20].

Discussion

The present study demonstrates that adolescents engaged in organized sports report significantly higher social-skills and teamwork scores than non-participants, with the largest effects observed for teamwork, leadership, communication and conflict-management. This pattern closely reflects the broader evidence base that sport participation is associated with psychosocial and social benefits in youth, and that team-sport contexts in particular provide a richer social environment for building interpersonal competence through repeated, real-time collaboration and shared goal pursuit [3-6]. The “Team > Individual > None” gradient found across most social subdomains supports conceptual models proposing that the interdependent nature of team sports (role differentiation, coordinated strategy, peer feedback, collective problem-solving) creates frequent, authentic opportunities to practice cooperative behaviors, communication, and leadership under emotionally salient conditions [3, 9, 15-17]. While individual-sport participants also showed advantages over non-participants, their gains were comparatively smaller, implying that the quantity of interaction and the necessity of synchronizing effort with others may be key mechanisms for teamwork development [3, 6, 9].

A second major finding is that sport “dose” (frequency/week and years of participation) and the perceived coach/peer supportive climate independently predicted higher outcomes.

This aligns with systematic reviews showing that life-skill development in sport is not automatic; rather, it is facilitated when programs intentionally cultivate supportive relationships, positive motivational climates, and explicit life-skill teaching [7-12]. The strong contribution of motivational climate in our regression models is consistent with PYD frameworks, which emphasize that coaches and peers shape whether sport experiences translate into prosocial learning or remain narrowly performance-driven [7, 8, 10-14]. Practically, this suggests that investing in coach education around autonomy support, inclusive team norms, and reflective debriefing may amplify sport's social-developmental returns [7, 8, 10-12].

Our findings also resonate with longitudinal evidence indicating that sustained sport participation contributes to incremental gains in perceived social competence over adolescence [15-18]. The present cross-sectional results cannot confirm causality, but the consistency with longitudinal trends strengthens the plausibility of sport as a developmental asset. Notably, empathy showed a smaller team-sport advantage and was comparable between team and individual sports, hinting that empathic growth may be driven by broader sport participation such as exposure to challenge, respect for rules/opponents, and structured adult mentorship rather than interdependence alone [3, 6, 8].

Despite the generally positive pattern, the literature cautions that sport can also reproduce exclusion or negative peer dynamics when climates are overly competitive or inequitable, potentially blunting social-skill gains [3, 7, 8, 19]. The present data underscore that "quality of experience" matters at least as much as participation itself. Therefore, policy and program strategies should prioritize safe, well-supervised, and socially supportive sport ecosystems particularly for girls and socially vulnerable youth so that benefits observed here are realized across groups [7, 8, 19, 20].

Several limitations should be acknowledged. First, self-reported measures may inflate associations due to shared-method bias and social desirability. Second, the cross-sectional design prevents establishing directionality; socially skilled youth may be more likely to enter or remain in sport. Third, unmeasured contextual factors (e.g., school culture, family support) could influence both sport engagement and social development. Future studies should use multi-informant assessments (parents/teachers/coach ratings), direct behavioral observations, and longitudinal or quasi-experimental designs to test causal pathways and to identify which coaching practices and sport structures most reliably foster transferable teamwork and social skills [3, 7, 8, 10, 15, 20].

Overall, the study adds to convergent evidence that organized sport especially team-based participation within supportive climates functions as a powerful, scalable context for nurturing youth social skills and teamwork, reinforcing the value of sports in educational and community youth-development planning [3-8, 10-12, 15-20].

Conclusion

In conclusion, the present study supports the view that organized sports participation is a meaningful developmental setting for adolescents' social skills and teamwork, showing clear advantages for youth who engage regularly in structured sport, and the strongest gains for those involved in team-based games within supportive coach and peer climates. The observed gradient team-sport participants demonstrating the highest communication, leadership, conflict-management and overall teamwork, followed by individual-sport participants

and then non-participants suggests that the interdependent, goal-shared nature of team sports creates repeated, authentic practice in cooperating, negotiating roles, giving and receiving feedback, and problem-solving under pressure, while still indicating that any sustained sport involvement can contribute to broader social growth. Importantly, the findings also highlight that frequency and years of engagement, along with the perceived quality of the sport environment, matter as much as participation itself; adolescents who train more consistently and who experience inclusive, autonomy-supportive, and respectful climates report the greatest social benefits. Taken together, these results imply several practical steps for schools, clubs, parents, and policy makers: first, expand equitable access to organized youth sport by reducing cost barriers, providing community scholarships, ensuring safe facilities, and actively recruiting girls and socially vulnerable youth so that benefits are not restricted to already advantaged groups; second, prioritize team-sport opportunities in school timetables and community programs, especially in early and middle adolescence, while still offering individual sports for youth who prefer them, because both formats contribute to social development in complementary ways; third, invest in coach education that goes beyond technical training to include life-skills instruction, positive youth development principles, conflict-resolution facilitation, and strategies for building peer belonging, since supportive climates were a major predictor of stronger teamwork and social competence; fourth, integrate explicit social-skill modules into practice such as rotating leadership roles, structured peer mentoring, cooperative drills, guided reflection after games, and team-based goal setting so that social learning becomes intentional rather than incidental; fifth, monitor sport environments with simple periodic feedback tools from athletes and parents to identify overly competitive, exclusionary, or unsafe dynamics early and correct them through counselling, rule adjustments, or staff development; and finally, encourage parents to reinforce transfer of skills beyond sport by discussing teamwork experiences at home, praising prosocial behaviour over winning, and supporting balanced participation that does not compromise academics or wellbeing. By aligning access, sport type, and program quality with these recommendations, youth sport can be more reliably leveraged as a practical, scalable pathway for building the social skills and teamwork capacities that adolescents need for healthy relationships, school success, and future civic and workplace participation.

References

1. Merkel DL. Youth sport: positive and negative impact on young athletes. *Open Access J Sports Med.* 2013;4:151-160. doi:10.2147/OAJSM.S33556.
2. Brown KA, Patel DR, Darmawan D. Participation in sports in relation to adolescent growth and development. *Sports Health.* 2017;9(4):372-379. doi:10.1177/1941738117711379.
3. Eime RM, Young JA, Harvey JT, Charity MJ, Payne WR. 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. *Int J Behav Nutr Phys Act.* 2013;10:98-115. doi:10.1186/1479-5868-10-98.
4. Bengtsson D, Svensson J, Wiman V, Stenling A, Lundkvist E, Ivarsson A, *et al.* Health-related outcomes of youth sport participation: a systematic review and meta-analysis. *Int J Behav Nutr Phys Act.* 2025;22:89-

110. doi:10.1186/s12966-025-01792-x.
5. Sañudo B, Sánchez-Oliver AJ, Fernández-Gavira J, Gaser D, Stöcker N, Peralta M, *et al.* Physical and psychosocial benefits of sports participation among children and adolescents with chronic diseases: a systematic review. *Sports Med Open.* 2024;10(1):54-72. doi:10.1186/s40798-024-00722-8.
6. Eather N, Wade L, Pankowiak A, Eime R. The impact of sports participation on mental health and social outcomes in adults: a systematic review and the 'Mental Health through Sport' conceptual model. *Syst Rev.* 2023;12(1):102-125. doi:10.1186/s13643-023-02264-8.
7. Whitley MA, Massey WV, Camiré M, Boutet M, Borbee A. Sport-based youth development interventions in the United States: a systematic review. *BMC Public Health.* 2019;19(1):89-110. doi:10.1186/s12889-019-6387-z.
8. Hermens N, Super S, Verkooijen KT, Koelen MA. A systematic review of life skill development through sports programs serving socially vulnerable youth. *Res Q Exerc Sport.* 2017;88(4):408-424. doi:10.1080/02701367.2017.1355527.
9. Williams C, Neil R, Cropley B, Woodman T, Roberts R. A systematic review of sport-based life skills programs for young people: the quality of design and evaluation methods. *J Appl Sport Psychol.* 2022;34(2):409-435. doi:10.1080/10413200.2020.1792583.
10. Lower-Hoppe LE, Anderson-Butcher D, Newman TJ, Logan JAR. The influence of peers on life skill development and transfer in a sport-based positive youth development program. *J Sport Dev.* 2021;9(2):69-85.
11. Newman TJ, Lower-Hoppe LE, Anderson-Butcher D, Paluta LM. Process evaluation examining the implementation of a sport-based positive youth development program for socially vulnerable youth. *J Youth Dev.* 2020;15(6):70-90. doi:10.5195/jyd.2020.878.
12. Pierce S, Sheadler TR, Anderson-Butcher D, Amorose AJ, Wade-Mdivanian R. Social skill transfer from a sport-based positive youth development program to the school setting. *Sport Soc Work J.* 2022;1(1):78-95.
13. Bruner MW, Balish SM, Forrest C, Brown S, Webber K, Gray E, *et al.* The effect of sport-based interventions on positive youth development outcomes: a meta-analysis. *Int Rev Sport Exerc Psychol.* 2021;Epub ahead of print. doi:10.1080/1750984X.2021.1872762.
14. Anderson-Butcher D, Martin E, Paluta L, Gould D. Patterns of social skill development over time among clusters of LiFEsports participants. *Child Youth Serv Rev.* 2018;87:17-25.
15. Bedard C, Hanna S, Cairney J. A longitudinal study of sport participation and perceived social competence in youth. *J Adolesc Health.* 2020;66(3):352-359. doi:10.1016/j.jadohealth.2019.09.017.
16. Owen KB, Parker PD, Astell-Burt T, Lonsdale C. Patterns and predictors of loneliness trajectories from early adolescence to emerging adulthood: a 12-year longitudinal study. *PLoS One.* 2024;19(9):e0307067. doi:10.1371/journal.pone.0307067.
17. Super S, Hermens N, Verkooijen KT, Koelen MA. Examining the relationship between sports participation and youth developmental outcomes for socially vulnerable youth. *BMC Public Health.* 2018;18:1012-1030. doi:10.1186/s12889-018-5955-y.
18. Heller I, Michel G, Seiler R, Raguindin PF, Schumacher Dimech A, *et al.* Long-term effects of childhood sport participation and social support on social anxiety: findings from a 15-year longitudinal study in Switzerland. *J Public Health (Berl).* 2025;Epub ahead of print. doi:10.1007/s10389-025-02568-0.
19. Super S, Wentink CQ, Verkooijen KT, Koelen MA. Exploring the sports experiences of socially vulnerable youth. *Soc Inclusion.* 2017;5(2):198-209. doi:10.17645/si.v5i2.864.
20. Sheadler TR, Anderson-Butcher D, Bates S. Long-term life-skill transfer from sport-based positive youth development programs. *J Youth Dev.* 2024;19(3):Article 2. doi:10.5195/jyd.2024.1507.