



Teamwork, Resilience, and Leadership: The Contribution of Sports to the Holistic Formation of Future-Ready Graduates

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Abstract

The role of sports in higher education extends beyond physical development, fostering essential life skills such as teamwork, resilience, and leadership. This research explores how athletic participation at the City College of Calamba (CCC) contributes to the holistic formation of future-ready graduates. Despite anecdotal evidence supporting the transformative impact of sports, there is limited empirical research on how these experiences shape long-term professional and personal development, particularly in the local context. This research aims to examine the influence of athletic involvement on the personal and professional growth of graduates, focusing on the development of teamwork, resilience, and leadership. It seeks to address gaps in understanding how sports participation equips students with skills that transcend the playing field, aligning with CCC's mission to produce globally competitive and socially responsible professionals. A qualitative case study design was employed, analyzing responses from 20 alumni (2020–2024) who were student-athletes. Data were collected via Google Forms using open-ended questions, and thematic analysis was conducted following Braun and Clarke's framework. The study explored themes related to discipline, leadership, resilience, and career readiness, grounded in the participants' lived experiences. The findings reveal that athletic participation significantly enhances character formation, time management, and emotional resilience. Key themes include the transfer of teamwork skills to professional settings, the development of leadership through shared responsibilities, and the ability to overcome adversity. Graduates reported applying these competencies in education, public service, business management, and technical fields. The study also highlights the need for structured support systems to balance academic and athletic demands. This research contributes to institutional knowledge by demonstrating the long-term benefits of sports participation in higher education. It offers actionable insights for enhancing CCC's athletic programs, emphasizing leadership development, mental health support, and alumni engagement. The study underscores the value of sports as a co-curricular platform for holistic student formation, aligning with global educational goals. The research limitations include a small, purposive sample and reliance on self-reported data, which may introduce bias. The absence of non-athlete comparisons and the retrospective nature of responses also constrain generalizability. Future study could employ mixed methods and longitudinal designs to validate findings.

Keywords: *Student-Athlete Development, Holistic Education, Leadership in Sports, Resilience Training, Teamwork Skills*

INTRODUCTION

Globally, higher education increasingly expects graduates to possess strong academic skills, adaptability, collaboration, and ethical integrity, competencies essential for 21st-century employment and leadership. Extracurricular activities, particularly sports, play a vital role in holistic student development by fostering resilience, intrinsic motivation, and teamwork (Zhang & Li, 2025; Kang & Alaeddini, 2025).

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Beyond physical development, athletics cultivate adaptability, ethical leadership, and collaboration. This study examines how participation in athletic programs shapes CCC students' holistic growth, aligning with the institution's core values of integrity, social responsibility, lifelong learning, and national service, as well as its vision of producing globally competitive professionals by 2035. Guided by CCC's Sports Manual, which emphasizes discipline, perseverance, and character, sports are viewed as a key avenue for student development.

Existing research mainly addresses short-term performance or psychosocial outcomes, offering limited evidence on long-term employability, leadership, and professional effectiveness. Findings are often generalized across institutions, overlooking local culture and organizational values, leaving administrators with little guidance for enhancing athletic programs sustainably. While sports are shown to develop emotional intelligence, teamwork, and grit (Bailey et al., 2013; Holt et al., 2017), localized, alumni-based evidence on post-graduation applications of these skills remains scarce. Mental health benefits are documented (Lee et al., 2025), but leadership outcomes among collegiate athletes show mixed results (Correia-Harker et al., 2025).

This study captures reflections of CCC student-athletes (2020–2024) on how sports shaped their values, work ethics, and leadership styles. Specifically, it seeks to determine:

1. How athletic involvement influenced their personal and professional development;
2. How teamwork, resilience, and leadership manifested after graduation;
3. What challenges tested these values;
4. How they view sports in preparing them as future-ready professionals; and
5. What recommendations they can offer to strengthen CCC's sports programs.

Ultimately, the study aims to inform institutional policies and programs by providing evidence-based insights into how sports nurture emotionally intelligent, socially responsible, and globally competent CCC graduates. Theoretically, it contributes to understanding the mechanisms of experiential and co-curricular learning in higher education.

LITERATURE REVIEW

This section reviews literature on how sports participation supports holistic student development, particularly in fostering teamwork, resilience, and leadership essential for future-ready graduates. Drawing on empirical studies, institutional policies, and reflective accounts, it highlights sports as a value-driven co-curricular activity that builds discipline, collaboration, and emotional strength. The review is thematically organized and grounded in experiential learning theory (Kolb, 1984), which explains how structured athletic experiences are transformed into lifelong competencies.

Sports as a Platform for Collaborative Skill Development

The role of sports in developing teamwork and collaboration is well documented. Jones (2024) found that participation in team sports enhances communication, cooperation, and conflict resolution skills that extend beyond athletics into academic, professional, and community contexts, positioning sports as transformative co-curricular platforms for holistic development. This is reinforced by Bhimavarapu (2025), who conceptualizes organized sports as “natural laboratories” for social learning, where structured rules, peer interaction, and adult mentorship foster communication, empathy, leadership, and cooperation through mechanisms such as self-regulation, perspective-taking, and identity formation. Grounded in Social Learning Theory, Social Development Theory, and the Positive Youth Development Model, this framework explains how sports-based competencies become transferable across social and professional settings when programs are intentionally designed.

Similarly, [Morphoses \(2024\)](#) emphasizes that emotionally engaging and cooperative sports experiences cultivate empathy, collaboration, and effective communication that mirror real-world teamwork and leadership demands. [Masters \(2023\)](#) further notes that athletic participation builds trust, adaptability, and shared accountability as athletes work toward common goals and integrate diverse strengths. However, recent literature cautions that these outcomes are not automatic. Poorly structured sports environments—marked by excessive emphasis on winning or tolerance of antisocial behavior—may undermine social development, highlighting the importance of developmental coaching, inclusive program design, and ethical mentorship.

Despite strong evidence supporting the social value of sports, limited research traces how these competencies persist into early career stages, particularly within specific institutional contexts. At the City College of Calamba (CCC), athletic participation serves as structured experiential learning that strengthens teamwork under pressure, enhances interpersonal agility, and supports long-term leadership and resilience. When aligned with CCC's values and guided by intentional coaching practices, sports programs contribute meaningfully to the formation of future-ready graduates equipped with transferable social and professional competencies.

Building Resilience through Athletic Participation

Building resilience through athletic participation is a dynamic process shaped by both individual experiences and supportive environments. [Norris and Norris \(2024\)](#) highlight sports' protective role against Adverse Childhood Experiences (ACEs), emphasizing how structured routines, trusted mentors, and a strong sense of community enhance psychological well-being. This aligns with Sport-Based Positive Youth Development (SBPYD) research by [Godor \(2025\)](#), which shows that intentionally designed sports programs strengthen key resilience factors—self-esteem, self-efficacy, and sense of belonging. Evidence from a 20-week SBPYD intervention demonstrates measurable gains in self-esteem and belonging, underscoring the effectiveness of sports when paired with mentorship and goal-oriented support.

The quality of the immediate sports environment further shapes resilience outcomes. [Beatus \(2023\)](#) underscores the influence of coaching relationships and team culture, while [Saxe et al. \(2022\)](#) caution that poorly structured environments may hinder emotional growth and risk-taking. Consistent with this, [Godor \(2025\)](#) emphasizes adult mentorship, positive peer interaction, and structured challenges as central to fostering emotional regulation, identity formation, and adaptive coping.

[Hartigh et al. \(2022\)](#) extend this perspective by framing resilience as both mental and physical, requiring psychological adaptability alongside physiological recovery. SBPYD programs reflect this multidimensional approach by integrating physical activity with academic support, individualized coaching, and reflective goal-setting. Such holistic designs promote immediate well-being while cultivating transferable coping skills beyond sport, supported by continuous evaluation using validated measures.

Overall, the literature positions resilience as a multifaceted capacity developed through challenge, support, and intentional program design. However, limited longitudinal research connects sport-based resilience to post-college professional adaptability—a gap this study seeks to address. At the City College of Calamba (CCC), athletic participation serves as structured experiential learning that builds resilience, emotional regulation, and perseverance. Embedded within supportive educational and coaching frameworks, CCC's sports programs align with its mission to develop graduates who are academically competent, emotionally stable, and socially responsible in navigating professional and life challenges.

Leadership Development in Student-Athletes

Leadership is critical for enhancing performance, cohesion, and well-being within sports teams, with both formal leaders (e.g., captains) and informal athlete leaders shaping team dynamics. Athletic leadership extends beyond titles, encompassing task-oriented, motivational, social, and external roles, with informal leaders often emerging organically and sometimes being as influential as formal leaders. Despite these benefits, leadership development among athletes has historically lacked structure, prompting frameworks that emphasize experiential learning, collaboration, and shared leadership across all team levels (Cotterill et al., 2022).

The student-Athlete Leadership Experience (Harwood, 2025) bridges athletic development and professional readiness, translating traits such as discipline, resilience, and communication into workplace competencies through mentorship, workshops, and reflective learning, fostering adaptive, purpose-driven professionals. Leadership development also varies across cultural and social contexts, with domestic NCAA athletes often demonstrating stronger leadership than international peers, highlighting that development is mediated by contextual factors (Jolly et al., 2024).

Complementing these findings, Xia and Tabajen (2024) identified gaps in current student-athlete leadership programs, including a predominance of male athletes and tennis players, low overall leadership abilities across key domains, and programs often deemed “not effectively implemented,” with inequities across gender and sport. Importantly, a strong positive correlation between perceived leadership abilities and program effectiveness underscores that well-designed interventions can significantly enhance competencies. Their study recommends inclusive programs for diverse sports and genders, interactive training in core leadership skills, systematic evaluation, equitable access, sport-specific tailoring, integration of cultural and diversity awareness, sufficient resourcing, and continuous mentorship.

These insights highlight the need for intentional, equitable, and context-sensitive leadership strategies. At the City College of Calamba (CCC), such programs can cultivate collaborative, culturally competent, and adaptable future leaders. While sports clearly foster teamwork, resilience, and leadership, a significant gap remains in context-specific, longitudinal evidence linking collegiate athletic experiences to post-graduation professional application within Philippine higher education, a gap this study aims to address.

RESEARCH METHOD

Research Method Used

This study employs a qualitative research design, specifically an exploratory case study approach, to explore how participation in athletic programs has contributed to the holistic formation of graduates from the City College of Calamba (CCC). As case study research investigates a bounded system within its real-life context (Patnaik & Pandey, 2019), this inquiry focuses on CCC alumni between 2020 and 2024 who were student-athletes—a cohort uniquely shaped by the dual demands of collegiate sports and the disruptions of a global pandemic.

Data Collection and Analysis

To facilitate data collection, the researchers used Google Forms, a digital platform that ensured accessibility and convenience for graduates who are now working. The form consisted of open-ended questions developed based on the research objectives and a review of related literature, encouraging participants to share rich narratives about how their experiences as student-athletes influenced their values, work ethic, and leadership in real-world contexts. Respondents could answer in either English or Filipino, depending on their comfort and ability to express themselves authentically. Sample prompts included.

“Describe a time after graduation when the resilience you gained from sports helped you overcome a major professional challenge” and

“Paano nakaimpluwensiya ang iyong karanasan bilang student-athlete sa kakayahan mong makipagtulungan sa trabaho?”

For the analysis of the participants’ demographic profiles, including data on sports participation, degree program, and current career distribution, the researchers employed percentage-based analysis to present a clear summary of trends and representation. These quantitative summaries provided context to the qualitative narratives, helping to frame the discussion on how athletic experiences varied across disciplines and career paths. All responses from Google Forms were compiled automatically and then exported for manual analysis.

To interpret the open-ended responses, the research team applied [Braun and Clarke’s \(2006\)](#) six-phase thematic analysis framework inductively, allowing themes to emerge directly from the data. This approach allowed for a systematic examination of emerging themes related to teamwork, resilience, and leadership, core competencies emphasized in CCC’s institutional mission. To enhance the trustworthiness of the qualitative analysis, several strategies were employed: peer debriefing among researchers during theme generation (credibility), maintaining an audit trail of analytical decisions (dependability), and providing thick descriptions of the context and participant voices (transferability). While the online format enhanced reach and participation, it limited opportunities for spontaneous dialogue and the observation of nonverbal cues. As such, future research may integrate interviews or focus groups to complement the digital case study and enrich the depth of insights gathered.

Respondents’ Description

The respondents of this study were 20 graduates of the City College of Calamba (CCC) who actively participated in athletic programs during their college years from batch 2020 to 2024. Representing a range of academic disciplines and sports, including basketball, volleyball, and cheerleading, these participants were selected through purposive sampling based on their rich, firsthand experiences in collegiate athletics. Now engaged in diverse career paths such as education, public service, business, and technical fields, these alumni provided in-depth reflections on how their involvement in CCC’s sports programs contributed to the development of essential life skills such as leadership, teamwork, resilience, and discipline.

Their responses, which align with CCC’s institutional values of moral uprightness, social responsibility, and lifelong learning, offer valuable insights into how athletic participation shaped their work ethic, coping strategies, and professional identity. The sample size of 20 participants is supported by previous research on data saturation. A review of 23 studies, 17 using empirical data and 6 employing statistical modeling, found that saturation is typically achieved within 9 to 17 interviews or 4 to 8 focus group discussions, especially in studies involving relatively homogenous populations and narrowly defined objectives ([Hennink & Kaiser, 2021](#)). Given the shared educational background of the participants and the focused scope of this study, the sample size is considered sufficient to achieve code saturation, ensuring both the depth and trustworthiness of the findings while maintaining analytical manageability.

FINDINGS AND DISCUSSION

Respondents' Demographic Profile

Sports Participation

Among the 20 student-athlete respondents from the City College of Calamba, cheerleading was the most participated sport, involving 15 athletes (71.4%; 7 males, 8 females). This dominance is attributed to cheerleading being the first team established under the CCC "Valiants," making it the most visible, accessible, and gender-inclusive sport at the time. Basketball followed with 3 male participants (14.3%), and volleyball with 2 male participants (9.5%), with no female respondents in either sport. Overall, the findings indicate that early establishment and institutional promotion strongly shaped participation patterns, positioning cheerleading as the primary entry point to athletics, particularly for female students.

These findings suggest that the timing and promotion of sports programs significantly influenced student participation. The prominence of cheerleading reflects both its historical significance as CCC's foundational team and its role as a gateway for athletic involvement, especially among female students.

Table 1. Sports Participation

Sports	Male	Female	Total	% of All Athletes
Cheerleading	7	8	15	71.4%
Basketball	3	0	3	14.3%
Volleyball	2	0	2	9.5%
TOTAL	12	8	20	100%

College Degree

Table 2 shows that most respondents were BS Education graduates (60%), followed by BS Information Technology (30%) and BS Computer Science (10%). This distribution reflects both actual student-athlete representation and participant accessibility during data collection, as education graduates, now largely employed in schools, were more available. Despite the imbalance, the inclusion of IT and Computer Science alumni indicates that sports participation spanned multiple disciplines and supported resilience, time management, and other life skills. While convenience sampling limited representation, the findings still highlight the role of sports in developing teamwork, resilience, and leadership aligned with CCC's mission, underscoring the need for broader alumni engagement in future studies.

Table 2. Degree Program Summary

Degree Program	Total Students	Percentage (%)
BS Education	12	60.0%
BS Information Technology	6	30.0%
BS Computer Science	2	10.0%
Total	20	100%

Current Career Distribution

Table 3 shows that 30% of the 20 CCC graduate student-athletes are now working as teachers, reflecting alignment with their BS Education background and roles requiring leadership and communication skills. The remaining respondents pursued diverse careers, including virtual/freelance work (15%), government service (10%), and STEM-related fields (10%), indicating adaptability and the transferability of skills such as discipline, resilience, and time management developed through sports. Smaller representations in customer service, tutoring, research, and retail further illustrate varied early career paths. Overall, the findings support the role of athletic participation in developing life skills applicable across professions and inform CCC's efforts to align sports programs with career readiness.

Table 3. Current Career Distribution

Career	Count	% of Total	Notes
Teacher (all types)	6	30%	Includes public school, SHS, and professional
Virtual/Freelance Assistant	3	15%	Combines VA and freelance roles
Government Employee	2	10%	BFP + unspecified gov't role
STEM/Technical Roles	2	10%	Sr. System Dev Engineer + Cycle Counter
Freelance Tutor (Math)	1	5%	Brighterly
Service/Retail	1	5%	Barista
Customer Service	1	5%	CSR
Research Assistant (Freelance)	1	5%	Freelance
Instructor (Non-Teacher)	1	5%	Likely vocational/skills-based
TOTAL	20	100%	

Influence of Involvement on Personal and Professional Development

Table 4 reveals that athletic involvement significantly contributes to character formation, particularly in the areas of discipline, time management, and commitment. With 14 coded instances from 11 participants, the theme Character Formation through Discipline and Responsibility underscores how sports instill a strong sense of accountability and reliability. For example, P12 stated,

"Sports taught me discipline," - P12

While P7 emphasized, *"Being an athlete, time management, and extreme commitment are a must." - P7*

These habits translate into dependable work ethics in professional settings. These findings align with those of [Bisa \(2023\)](#), who highlights the critical role of sports education in developing character.

Another key theme is the development of leadership, teamwork, and emotional resilience. Participants recounted experiences where trust and collaboration were central to team success (Leadership and Teamwork Skills Development). Closely linked is Emotional Maturity and Resilience, where respondents reflected on how setbacks in sports helped them manage stress.

"If you fall on the ground, always stand up" - P4

Illustrating this mindset. These themes collectively suggest that sports foster emotional intelligence and mental toughness essential in today's competitive environments. These findings are strongly supported by [Eather et al. \(2023\)](#), whose systematic review revealed that participation in sports is associated with improved mental health and social outcomes.

Additional themes such as enhanced self-awareness, lifelong communication skills, goal orientation, and passion present a holistic view of student-athlete development. This aligns closely with the findings of [Yukhymenko-Lescroart \(2021\)](#), which connect passion for sport to greater intrinsic motivation and effort across life domains. An unexpected finding was the profound role of team identity, which persisted strongly post-graduation and served as a continuous source of social support, a facet less emphasized in the literature on skill transfer.

Table 4. Influence of Involvement on Personal and Professional Development

Codes/Categories	Verbatim Responses	No. It Occurs	No. Of Participants Who Responded	Themes	Description Of Themes
Discipline, Time Management, Commitment	<i>"Sports taught me discipline." "Being an athlete, time management and extreme commitment are a must."</i>	14	11	Character Formation through Discipline and Responsibility	Involvement in sports helps develop discipline, a strong work ethic, and accountability, which contribute to personal reliability and professional effectiveness.
Leadership, Teamwork, Camaraderie	<i>"It once again helped me realize that there is a leader within me." "Trust your teammate no matter what."</i>	10	9	Leadership and Teamwork Skills Development	Participation in team sports enhances leadership capacity, collaboration, and trust—skills vital in professional settings.
Resilience, Emotional Strength	<i>"If you fall on the ground, always stand up."</i>	11	10	Emotional Maturity and Resilience	Challenges faced in sports foster mental toughness,

	<i>"I was able to handle difficulties and rejections."</i>				equipping student-athletes to handle failures and setbacks in life and career.
Confidence, Identity, Self-Efficacy	<i>"It greatly boosted my confidence." "It shaped my sense of identity and purpose."</i>	9	8	Enhanced Self-Awareness and Confidence	Sports provide a platform for building self-confidence and self-discovery, key factors in career decision-making and personal growth.
Communication, Social Skills	<i>"It helped me build camaraderie." "Communication is very important."</i>	7	6	Lifelong Interpersonal and Communication Skills	Frequent interaction in sports settings enhances verbal and non-verbal communication skills, which are transferable to professional environments.
Goal Setting, Planning, Achievement	<i>"Set what skills you need to improve." "It helped me accomplish different tasks."</i>	8	7	Goal Orientation and Future Readiness	The need to improve and win fosters goal setting and strategic thinking, preparing students for academic and career planning.
Passion, Motivation, Drive	<i>"Cheerleading became my passion." "This sport shaped me... and motivated me."</i>	6	5	Passion as a Motivating Force	Sports engagement ignites intrinsic motivation and helps students find purpose, which fuels personal and professional ambition.

Manifestation of the Values of Teamwork, Resilience, and Leadership Cultivated through Athletic Participation

Table 5 shows that student-athletes' sports engagement significantly shaped enduring values beyond the field. The leading theme, Teamwork Beyond Sports (22 occurrences), highlights how mutual trust and collaboration now manifest in workplaces. Resilience in Adversity (20 occurrences) reveals how overcoming setbacks builds mental toughness.

"Success doesn't come from individual effort alone, but from working together" - P19

While P3 reflected on focusing on recovery after an injury. These results align with Jones (2024), who found that team sports enhance communication and cooperation. The theme Transformational and Supportive Leadership (18 occurrences) illustrates how athletic participation nurtured leadership grounded in empathy and mentorship. P1 described leadership as "setting a positive example, listening, and creating a supportive environment." These insights align with Karayel et al. (2024), who emphasized how supportive coach-athlete relationships foster resilience. Additional themes---prioritization, constructive responses to failure, and lasting camaraderie---underscore holistic growth. These findings parallel Hefkaluk et al. (2023), demonstrating how supportive, challenge-driven settings foster transferable psychological strengths.

Table 5. Manifestation of the Values of Teamwork, Resilience, and Leadership Cultivated through Athletic Participation

Codes/Categories	Verbatim Responses	No. It Occurs	No. Of Participants Who Responded	Themes	Description Of Themes
Mutual Trust and Collaboration	<i>"Success doesn't come from individual effort alone, but from working together and supporting each other." / "Cheerleading requires a lot of teamwork... each person contributes their own strength to fulfill others' weaknesses."</i>	22	19	Teamwork Beyond Sports	Team dynamics instilled deep appreciation for collaboration, mutual respect, and trust, which participants now apply in workplaces, relationships, and community roles.
Adaptability and Mental Fortitude	<i>"Instead of giving up, I focused on recovery and stayed involved by supporting my team..." / "We surpassed the challenge through trusting each other and believing..."</i>	20	17	Resilience in Adversity	Facing competition losses, injuries, or personal doubts helped participants develop the mental toughness and adaptability they use today in academic and career settings.
Leading by Example	<i>"Leadership means setting a positive example, listening, and creating a supportive environment..." / "I became a leader by being a</i>	18	16	Transformational and Supportive Leadership	Participants learned leadership through action, influence, and empathy—skills they now apply by guiding peers, students, or

	<i>role model to our teammates..."</i>				colleagues with care and responsibility. Leadership was not just task-oriented but emotionally driven; athletes learned to provide moral support, listen, and uplift their team—skills carried into real-life roles.
Emotional Support and Encouragement	<i>"Leadership isn't just about being on the mat—it's also about being there in spirit." / "I reminded myself that being a good leader also means being a good follower..."</i>	9	7		
Time and Task Management	<i>"How will you handle your team... while you handle your own school requirements?" / "Time management, focus muna sa mga dapat unahin..."</i>	11	9	Prioritization and Responsibility	Balancing academics and sports helped them hone prioritization skills and a responsible attitude, aiding them in juggling work-life and adult responsibilities.
Growth Through Coaching and Mentoring	<i>"Being a coach is a hard job... but still we need to work for the betterment of our athletes." / "Mas naging madali sya sa'kin ihandle dahil napagdaanan ko na."</i>	10	8	Mentorship and Empathy	Former athletes turned into mentors, using their past coaching experiences to become empathetic leaders and motivators in their professional and personal environments.
Learning from Setbacks	<i>"We trained harder, communicated better, and came back stronger." / "It was heartbreaking... but I still wanted to show my support." Being a good follower..."</i>	8	6	Constructive Response to Failure	Failures were viewed as learning moments; participants built emotional resilience and developed the ability to bounce back stronger after personal or team setbacks.
Team Identity and Belonging	<i>"Even though we already graduated... we</i>	7	6	Lasting Camaraderie	The athletic experience created bonds

<p><i>still consider ourselves friends and teammates." / "We built not just a pyramid but also a family..."</i></p>	<p>and a sense of identity that persisted post-graduation, reinforcing a sense of unity and lifelong peer support.</p>
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Post-College Challenges and Athletic Values Among Former CCC Athletes

Table 6 shows that values gained through athletic participation significantly supported former CCC student-athletes in navigating early career transitions. The dominant theme, Life Transitions and Resilience, highlights how perseverance helped participants overcome unemployment and career shifts. The theme Discipline and Productivity emphasizes how time management enabled them to meet professional demands. P8 shared, "Career transition... opened opportunities at work because of my sports background." These findings align with [Martín-Rodríguez et al. \(2024\)](#), who identified strong links between sports participation and psychological well-being.

The theme Pressure Management and Focus illustrates how athletes developed composure amid challenges, echoing [Dipasupil and Ofrin \(2024\)](#) on the importance of psychological readiness. Further themes underscore how athletic experiences strengthened critical thinking and adaptability. These outcomes resonate with [D'Angelo et al. \(2021\)](#), whose case study revealed both the potential and challenges of sports-based programs for social inclusion.

Table 6. Post-College Challenges and Athletic Values Among Former CCC Athletes

Codes/Categories	Verbatim Responses	No. It Occurs	No. Of Participants Who Responded	Themes	Description Of Themes
Resilience During Life Transitions	<i>"Career transition... no more training... opened opportunity at work because of my sports background." "Pandemic... I resigned from work... unemployed for 5 months but I tried again." "Culture shock as a first-time teacher... I organized myself like I did in training."</i>	6	6	Life Transitions & Resilience	Athletes encountered post-college transitions like job loss, the pandemic, or career shifts. Their athletic resilience helped them adapt and persevere.

Time Management & Discipline	<i>"Too many tasks, but I always accomplish them on time." "You need to be committed as an athlete... same in life." "I learned to be proactive and punctual." "Time management really helped me a lot, especially now that I am a teacher."</i>	7	7	Discipline & Productivity	Athletic discipline and time management were essential in handling professional responsibilities and personal tasks after graduation.
Mental Toughness Under Pressure	<i>"Being a student-athlete taught me how to stay calm under pressure." "Physically prepared during the pandemic." "Life isn't easy... need to endure." "Stay calm, focused, and disciplined."</i>	5	5	Pressure Management & Focus	The ability to stay calm and composed under stress or pressure was frequently mentioned as key in dealing with professional life's demands.
Teamwork & Collaboration	<i>"It helped me be a better leader." "Now I share the lessons I learned from my coaches." "We can't slack off in the team; same in the office."</i>	4	4	Leadership Development	Experiences in sports cultivated leadership, initiative, and accountability in personal and professional roles.
Optimism & Growth Mindset	<i>"No problem without a solution... take it as an opportunity to be better." "You feel relieved that you didn't quit."</i>	4	4	Positive Outlook & Resilience	Athletes retained a hopeful, forward-looking mindset even during setbacks, often drawing strength from past experiences.

	<i>"Tiyaga lang kailangan."</i>				
Self-Confidence & Personal Growth	<i>"I had low self-confidence, but cheerleading changed me." "Makapal na daw mukha ko haha." "Athletics made me a better version of myself."</i>	3	3	Personal Empowerment	Athletic participation enabled participants to gain confidence and self-awareness, helping them face public and professional environments more comfortably.
Sports-Informed Decision-Making	<i>"Choosing between two job offers... I took a calculated risk." "Critical thinking from volleyball helped me weigh options." "Team decisions taught me to listen and choose carefully."</i>	5	5	Strategic Decision-Making	The decision-making processes learned in competitive sports translated into real-world professional and personal choices.
Adjustment to Work Environments	<i>"I need to deal with people with different personalities." "Culture shock in teaching... but I used my training discipline." "Job rejections tested my patience and perseverance."</i>	5	5	Adaptability & Social Integration	Sports taught athletes to quickly adapt to new environments, understand diverse personalities, and recover from setbacks in unfamiliar work settings.

Reflection on the Relevance and Impact of the Athletic Experiences

Table 7 underscores the lasting impact of athletic experiences. The most prominent theme, Professional Discipline, emerged in 12 responses, with participants attributing time management and focus to their sports training.

"My sports training at CCC taught me discipline, time management, and how to stay focused under pressure." - P15

These findings align with the study by [Nuryadi et al. \(2024\)](#) on dual-career university athletes, which highlighted the positive influence of sports on academic discipline.

The themes of Collaborative Leadership and Resilient Mindset underscore how former CCC student-athletes developed essential leadership traits and perseverance. P5 remarked, "Teamwork... I use this in my leadership now at work." These findings align with [Wang and Ismail \(2024\)](#), who identified a positive correlation between sports participation and leadership skill development.

Other themes reinforce that athletic experiences actively shape workplace behavior and enhance career readiness. These insights resonate with [Quinaud et al. \(2022\)](#), whose study on medical student-athletes revealed that sports cultivated time management, leadership, and teamwork seen as transferable to future careers.

Table 7. Reflection on the Relevance and Impact of the Athletic Experiences

Codes/Categories	Verbatim Responses	No. It Occurs	No. Of Participants Who Responded	Themes	Description Of Themes
Discipline and Time Management	<p><i>"Time management, resilience, and goal-setting... helped me adapt and succeed after college."</i></p> <p><i>"My sports training at CCC taught me discipline, time management, and how to stay focused under pressure."</i></p> <p><i>"Schedule and time management."</i></p>	12	12	Professional Discipline	Sports instilled strong time management, punctuality, and disciplined routines which shaped their work ethic, aligning with the institutional goal of forming responsible and dependable professionals.
Teamwork and Collaboration	<p><i>"I carry those same habits into my professional life... working well in a team."</i></p> <p><i>"Teamwork... I use this in my leadership now at work."</i></p> <p><i>"Being an athlete shapes your discipline and respect to your teammate... that hones your workplace response."</i></p>	11	11	Collaborative Leadership and Leadership Readiness	Experiences in team dynamics and shared goals developed a strong sense of collaboration, which is essential in professional teamwork, a key value in CCC's institutional culture. Sports nurtured leadership qualities and decision-making abilities, preparing graduates for roles where they guide teams and take initiative—reflecting CCC's
Leadership Development	<p><i>"Leadership and competence I learned as a student-athlete... now I lead the team."</i></p>	7	7		

	<i>“Commitment and time management as well as leadership skills prepared me for the future.”</i>				vision of producing empowered leaders.
Resilience and Perseverance	<i>“Resilience... bouncing back from setbacks.” “Life after college is tough... but the most important is we rise.” “When you fall you have to get up to reach your dreams.”</i>	10	10	Resilient Mindset	Participants learned to manage failure, pressure, and adversity—key competencies for thriving in unpredictable professional settings and personal life.
Self-confidence and Adaptability	<i>“To carry myself with confidence and find solutions.” “Cheerleading taught me to stay focused, organized, and resilient.” “I became more confident because of what I learned as an athlete.”</i>	6	6	Confidence and Adaptability	Training helped participants build confidence and adaptability—traits critical for navigating change and uncertainty in today’s workplace.
Ethical Behavior and Responsibility	<i>“Respect to my superiors helped me after graduation.” “It’s about discipline and respect to yourself, your team, your coaches.”</i>	5	5	Ethical and Responsible Conduct	Sports cultivated ethical behavior, self-respect, and accountability—important foundations for professional integrity and societal contribution.
Transferability of Skills to Career	<i>“What I learned being an athlete is what I apply in my profession.” “My work ethic and discipline all come from my athlete days.”</i>	9	9	Skill Transfer to Professional Life	Participants consistently emphasized how sports-based skills and attitudes directly carried over into their careers, affirming the real-world utility of their training.
Holistic Development and Multi-tasking	<i>“We both do academics and extracurriculars... we faced more challenges.”</i>	4	4	Holistic and Balanced Development	Being athletes required juggling multiple demands, contributing to graduates’ ability to balance

	<i>"I learned to juggle academics, training, and pressure."</i>				professional and personal responsibilities.
Athlete Advantage vs. Non-Athlete	<i>"Athletes are more prepared... they've trained for pressure." "Non-athletes may develop these too, but later." "Athletes face more stress and become more adaptive."</i>	8	8	Comparative Advantage of Athletes	Many see athletic experience as a professional edge due to early exposure to pressure, discipline, and performance expectations, affirming CCC's goal of future-readiness.

Proposed CCC Sports' Program Enhancement Plan

The findings of this study clearly affirm that athletic participation at the City College of Calamba (CCC) significantly contributes to the holistic development of student-athletes—particularly in cultivating character, professional discipline, leadership, and resilience. These outcomes reflect the transformative power of structured sports engagement, not only in shaping student experiences during college but also in preparing them for the demands of post-college life.

Informed by these insights, the proposed Sports Program Enhancement Plan aims to institutionalize and strengthen the formative benefits of athletic participation. It aligns with CCC's mission of developing future-ready, values-driven graduates by emphasizing critical areas such as leadership development, teamwork, time management, and values formation. Key strategies include assigning structured leadership roles within varsity teams, implementing team-building workshops, and integrating life skills training. These initiatives are designed to enhance collaboration, communication, and initiative—competencies aligned with the CCC graduate attributes and essential in today's professional environments.

A recurring theme from the participants was the challenge of balancing academic and athletic commitments. Many student-athletes attributed their professional discipline, goal setting, and time management abilities to their involvement in sports. In response, the plan introduces academic coaching, stronger coordination between coaches and faculty, and dedicated support systems to help student-athletes thrive both in their academic and athletic pursuits.

The plan also addresses growing concerns related to mental health and emotional resilience, particularly in the context of post-college transitions. Wellness check-ins, resilience coaching, and values-based mentoring will be implemented to support students in managing stress, setbacks, and personal challenges with composure and confidence. Additionally, the inclusion of alumni mentorship programs, career-readiness workshops, and curriculum enhancements ensures that the benefits of athletic participation are not only sustained but amplified, translating into greater employability and social contribution.

These efforts find meaningful support in the study of [Ebio and Digo \(2024\)](#) on the Sports Development Program (SDP) of a technical-vocational high school in Sorsogon. Their findings similarly underscored the critical role of structured sports initiatives in fostering physical well-being, athlete development, and institutional support. While the Sorsogon study focused on younger learners, it revealed parallel insights into the importance of facilities, coaching quality, and administrative backing—factors also considered in the CCC enhancement plan. Both studies highlight that a well-structured and responsive sports program is essential not only for athletic achievement but also for the holistic growth of learners as responsible, capable individuals.

In summary, the CCC Sports Program Enhancement Plan represents a strategic and evidence-based response to alumni feedback and broader educational insights. It positions the sports program as a platform for leadership formation, values education, and lifelong success, solidifying CCC's enduring commitment to competence, commitment, and character through sports.

Table 8. Proposed CCC Sports' Program Enhancement Plan

Key Area	Action Steps	Responsible Unit	Timeline	Expected Outcome
1. Leadership & Teamwork Development	<ul style="list-style-type: none"> - Integrate structured leadership roles and peer mentoring in varsity teams - Conduct quarterly team-building workshops with leadership modules 	Sports Development Office (SDO) Office of Student Affairs (OSA)	Start of AY 2025–2026 Ongoing per semester	Improved leadership capacity and collaboration among student-athletes, aligned with CCC's vision of producing empowered graduates
2. Time Management and Academic Support	<ul style="list-style-type: none"> - Offer academic coaching and personalized study schedules - Strengthen coordination between coaches and academic advisors 	Academic Affairs Sports Development Office Guidance Office	Pilot by 2nd Sem AY 2025–2026	Balanced academic-athletic performance, reduced academic dropouts among athletes
3. Career and Life Skills Integration	<ul style="list-style-type: none"> - Conduct post-training workshops on professional communication, resume-building, and time management - Invite alumni athletes as resource speakers 	Alumni Affairs Office Career Development Center SDO	Once per semester	Enhanced career preparedness and life-readiness through transferable skills

Key Area	Action Steps	Responsible Unit	Timeline	Expected Outcome
4. Mental Health and Resilience Support	<ul style="list-style-type: none"> - Establish wellness check-ins and resilience coaching sessions - Integrate sports psychology talks and group processing after competitions 	Guidance Office SDO Health Services Unit	Monthly wellness sessions Post-major events	Strengthened mental toughness and emotional support systems for student-athletes
5. Values and Ethical Formation	<ul style="list-style-type: none"> - Embed values education modules in athletic orientation and coaching - Recognize athletes who model integrity and discipline 	Office of Student Affairs Coaches Council OSA	At the start of each season Awarding per semester	Reinforced ethical behavior, integrity, and accountability among athletes
6. Alumni Engagement and Mentorship	<ul style="list-style-type: none"> - Create an alumni-athlete mentorship program - Organize annual "Athlete Talks" for current students 	Alumni Affairs OSA SDO	Launch by Mid AY 2025–2026	Stronger alumni-athlete network and practical guidance for current athletes
7. Holistic Athlete Development Framework	<ul style="list-style-type: none"> - Review and update CCC sports curriculum to align with life skills and employability - Introduce elective course or modules on Sports & Life Integration 	Curriculum Review Committee Academic Council SDO	Curriculum revision planning: AY 2025–2026 Implementation: AY 2026–2027	Institutionalized holistic formation and strategic skills training embedded in athlete experience

CONCLUSIONS

The findings of this study affirm that athletic participation at the City College of Calamba (CCC) plays a pivotal role in shaping the personal and professional development of its student-athletes. In direct response to the research questions, the analysis revealed that: (1) athletic involvement was a primary influencer of character, discipline, and emotional resilience; (2) the values of teamwork, resilience, and leadership manifested strongly in professional collaboration,

adversity management, and supportive mentorship roles after graduation; (3) these values were critically tested during career transitions and workplace pressures; (4) graduates viewed sports as a foundational preparation for future-readiness; and (5) their recommendations informed a concrete enhancement plan. Through thematic analysis of narrative responses, the research revealed that core values such as discipline, resilience, teamwork, leadership, and time management were not only cultivated during their time in sports but also translated into real-life competencies in their careers and personal lives after graduation.

The narratives highlighted that student-athletes developed a strong sense of responsibility, emotional maturity, and a resilient mindset—enabling them to face challenges such as career transitions, workplace pressures, and post-college adjustments with confidence and adaptability. These experiences echo CCC's institutional mission of producing well-rounded, future-ready graduates rooted in values and integrity. Theoretically, these findings contribute to experiential learning theory by demonstrating the concrete, long-term translation of co-curricular experiences into adult competencies, while challenging assumptions that such benefits are only short-term.

In light of these insights, a proposed Sports Program Enhancement Plan was formulated to institutionalize and strengthen the positive outcomes of athletic involvement. The plan recommends key interventions in leadership development, academic-athletic balance, mental health support, and alumni engagement. Ultimately, this study underscores the transformative impact of CCC's athletic programs and offers concrete steps to optimize sports as a powerful tool for holistic student formation and lifelong success.

LIMITATION AND FURTHER RESEARCH

This study is limited in several aspects. First, the participant pool was relatively small and purposively selected, with responses gathered primarily from alumni who were accessible and available, many of whom are already employed. This sampling approach may have introduced a selection bias, potentially excluding voices of former student-athletes who are unemployed, abroad, or unreachable online. Second, data collection relied on self-reported narratives through Google Forms, which, while convenient and insightful, restricted opportunities for follow-up questions, non-verbal observations, and in-depth probing that interviews or focus groups could have provided. Additionally, the reliance on retrospective accounts may be subject to memory bias or selective recall.

Despite these limitations, the study offers valuable insights into the long-term value of athletic participation. To enrich and expand the findings, future research may consider a mixed-methods approach incorporating interviews, longitudinal tracking, and a larger, more diverse sample. Studies may also explore comparisons between former athletes and non-athletes in terms of workplace readiness, career progression, and life satisfaction. Future quantitative work could specifically measure variables such as leadership self-efficacy, resilience scores, and career adaptability among graduates with and without athletic backgrounds. Moreover, quantitative measures could be integrated to validate the themes emerging from narrative analysis and assess the measurable impact of sports participation on specific professional outcomes.

Ultimately, future inquiries can further guide evidence-based enhancements to collegiate athletic programs, ensuring they remain aligned with institutional goals for holistic student development and graduate employability.

REFERENCES

- Aguilar, M. V. G., & Torres, G. S. (2023). Skills, knowledge, and values needed by recent Philippine graduates for employability. *Asian Interdisciplinary and Sustainability Review*, 12(1), 8–17. <https://doi.org/10.14456/psakuijir.2023.2>

- Bailey, R., Hillman, C., Arent, S., & Petitpas, A. (2013). Physical activity: An underestimated investment in human capital? *Journal of Physical Activity and Health, 10*(3), 289–308. <https://doi.org/10.1123/jpah.10.3.289>
- Beatus, H. (2023, April 6). *Building student-athlete resilience on and off the field*. ScholarWorks@GVSU. <https://scholarworks.gvsu.edu/gradprojects/257>
- Bhimavarapu, M. (2025). Sports as a tool for social development: How teamwork and competition shape children's social skills. *European Journal of Educational and Development Psychology, 13*(1), 16–29. <https://doi.org/10.37745/ejedp.2013/vol13n11629>
- Bisa, M. (2023). Sports education as a means of building student character: Values and benefits. *Al-Ishlah: Jurnal Pendidikan, 15*(2), 1581–1590. <https://doi.org/10.35445/alishlah.v15i2.3889>
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>
- City College of Calamba. (2024). *Sports manual*. Office of Student Affairs and Services.
- City College of Calamba. (2024). *Vision, mission, core values, and graduate attributes*. <https://www.ccc.edu.ph/>
- Correia-Harker, B. P., Clark, L. M., & Capin, J. J. (2025). Do sports develop leadership? The impact of college varsity sports on leadership capacity and self-efficacy. *Frontiers in Sports and Active Living, 7*, Article 1691139. <https://doi.org/10.3389/fspor.2025.1691139>
- Cotterill, S. T., Loughhead, T. M., & Fransen, K. (2022). Athlete leadership development within teams: Current understanding and future directions. *Frontiers in Psychology, 13*, Article 820745. <https://doi.org/10.3389/fpsyg.2022.820745>
- D'Angelo, C., Corvino, C., & Gozzoli, C. (2021). The challenges of promoting social inclusion through sport: The experience of a sport-based initiative in Italy. *Societies, 11*(2), 44. <https://doi.org/10.3390/soc11020044>
- Dipasupil, R. J. T., & Ofrin, D. D. (2024). Challenges in sports participation and coping mechanisms toward student-athletes' achievement: Basis for a flexible training program. *International Journal of Social Science, Humanity & Management Research, 3*(6). <https://doi.org/10.58806/ijsshmr.2024.v3i6n12>
- Eather, N., Wade, L., Pankowiak, A., & Eime, R. (2023). The impact of sports participation on mental health and social outcomes in adults: A systematic review and the “Mental Health through Sport” conceptual model. *Systematic Reviews, 12*(1). <https://doi.org/10.1186/s13643-023-02264-8>
- Ebio, M. J. P., & Digo, G. S. (2024). Sports development program: The case of a technical vocational high school in the province of Sorsogon, Philippines. *International Journal of Social Science and Education Research Studies, 4*(5). <https://doi.org/10.55677/ijssers/v04i5y2024-03>
- Godor, B. P. (2025). Cultivating resilience in youth: Assessing the psychological benefits of sport-based development programs. *Journal of Sport for Development*. <https://jsfd.org/>
- Hartigh, R. J. R. D., Meerhoff, L. R. A., Van Yperen, N. W., Neumann, N. D., Brauers, J. J., Frencken, W. G. P., Emerencia, A., Hill, Y., Platvoet, S., Atzmueller, M., Lemmink, K. A. P. M., & Brink, M. S. (2022). Resilience in sports: A multidisciplinary, dynamic, and personalized perspective. *International Review of Sport and Exercise Psychology, 17*(1), 564–586. <https://doi.org/10.1080/1750984X.2022.2039749>
- Hefkaluk, N., Linehan, C., & Trace, A. (2023). Fail, fail again, fail better: How players who enjoy challenging games persist after failure in *Celeste*. *International Journal of Human-Computer Studies, 183*, 103199. <https://doi.org/10.1016/j.ijhcs.2023.103199>
- Hennink, M., & Kaiser, B. N. (2021). Sample sizes for saturation in qualitative research: A systematic review of empirical tests. *Social Science & Medicine, 292*, 114523.

- <https://doi.org/10.1016/j.socscimed.2021.114523>
- Holt, N. L., Neely, K. C., Slater, L. G., Camiré, M., Côté, J., Fraser-Thomas, J., MacDonald, D. J., Strachan, L., & Tamminen, K. A. (2017). A grounded theory of positive youth development through sport based on results from a qualitative meta-study. *International Review of Sport and Exercise Psychology*, 10(1), 1–49. <https://doi.org/10.1080/1750984X.2016.1180704>
- Jolly, K., Corr, C., Sellars, N., & Stokowski, S. (2024). Leaders beyond sport: An exploratory comparative analysis of international and domestic college athletes' leadership competencies. *Journal of Leadership Education*. <https://doi.org/10.1108/jole-05-2024-0068>
- Jones, N. D. (2024). Impact of team sports participation on social skills development in youth. *American Journal of Recreation and Sports*, 3(2), 24–34. <https://doi.org/10.47672/ajrs.2400>
- Kang, S., & Alaeddini, A. (2025). Student-athletes' road to success in college life: Factors influencing psychological well-being, athletic, and academic performance. *Journal of Intercollegiate Sport*, 18(3). <https://doi.org/10.17161/jis.v18i3.22764>
- Karayel, E., Adilogullari, I., & Senel, E. (2024). The role of transformational leadership in the associations between coach-athlete relationship and team resilience: A study on elite football players. *BMC Psychology*, 12(1). <https://doi.org/10.1186/s40359-024-02043-7>
- Kolb, D. A. (1984). *Experiential learning: Experience as the source of learning and development*. Prentice Hall.
- Lee, L., Newman, T., Beasley, L., Kimiecik, C., Palomino, K., & Bosetti, R. (2025). College athlete resilience: Achieving mental well-being during a pandemic. *Journal of Intercollegiate Sport*, 18(3). <https://doi.org/10.17161/jis.v18i3.23572>
- Martín-Rodríguez, A., Gostian-Ropotin, L. A., Beltrán-Velasco, A. I., Belando-Pedreño, N., Simón, J. A., López-Mora, C., Navarro-Jiménez, E., Tornero-Aguilera, J. F., & Clemente-Suárez, V. J. (2024). Sporting mind: The interplay of physical activity and psychological health. *Sports*, 12(1), 37. <https://doi.org/10.3390/sports12010037>
- Masters, A. (2023, July 28). *The power of unity: The benefits of team sports*. iSport360. <https://isport360.com/benefit-of-team-sports/>
- Morphoses. (2024, December 6). *Unleashing teamwork skills through cooperative sports*. <https://morphoses.io/blog/unleashing-teamwork-skills-through-cooperative-sports>
- Norris, G., & Norris, H. (2021). Building resilience through sport in young people with adverse childhood experiences. *Frontiers in Sports and Active Living*, 3. <https://doi.org/10.3389/fspor.2021.663587>
- Nuryadi, N., Negara, J. D. K., Gumilar, A., Saputra, M. Y., Mulyana, M., Mudjianto, S., Ruswanto, L., Firmansyah, H., Novan, N. A., Purnomo, E., Burhaein, E., & Carsiwan, C. (2024). Dual career athletes: Disciplinary analysis of individual and team athletes in the academic environment. *International Journal of Human Movement and Sports Sciences*, 12(4), 685–691. <https://doi.org/10.13189/saj.2024.120410>
- Patnaik, S., & Pandey, S. C. (2019). Case study research. In *Research methodology* (pp. 163–179). Emerald Publishing Limited. <https://doi.org/10.1108/978-1-78973-973-220191011>
- Quinaud, R. T., Possamai, K., Júnior, J. R. D. N., Gonçalves, C. E., & Carvalho, H. M. (2022). The positive impact of sports participation on life skills development: A qualitative study with medical students. *Sport in Society*, 26(4), 687–702. <https://doi.org/10.1080/17430437.2022.2033220>
- Saxe, K., Beasley, L., & Abdulhussein, R. (2022). Team environments influence student-athlete mental health through mesolevel interactions: An ecological systems perspective. *Journal of Issues in Intercollegiate Athletics*, 558–584.

- Wang, J., & Ismail, A. (2024). Research on the relationship between leadership skills and participation in extracurricular sports activities among junior high school students in Hainan, China. *Journal of Ecohumanism*, 3(8). <https://doi.org/10.62754/joe.v3i8.6764>
- Xia, D., & Tabajen, N. R. (2024). Creating a culture of leadership in physical education: Strategies for empowering student-athletes. *International Journal of Education and Humanities*, 16(2), 87–92. <https://doi.org/10.54097/n96xk460>
- Yukhymenko-Lescroart, M. A. (2021). The role of passion for sport in college student-athletes' motivation and effort in academics and athletics. *International Journal of Educational Research Open*, 2, 100055. <https://doi.org/10.1016/j.ijedro.2021.100055>
- Zhang, W., & Li, J. (2025). Sports atmosphere and psychological resilience in college students: Mediating role of growth mindset. *Frontiers in Psychology*, 16, Article 1532498. <https://doi.org/10.3389/fpsyg.2025.1532498>