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Psychological Resilience: Its Relationship with Overall Well-Being, Student-Athletes, Academic Performance, and Athletic Performance of Student-Athletes

Katrina V. Bautista*
School of Graduate Studies, College of Education, Mindanao State University – Iligan Institute of Technology Iligan City, Philippines

Chiedel Joan G. San Diego, Leo N. Santillana
Department of Physical Education, College of Education, Mindanao State University – Iligan Institute of Technology Iligan City, Philippines

Evelyn I. Dominguez
Department of Professional Education, College of Education, Mindanao State University – Iligan Institute of Technology Iligan City, Philippines

Sotero O. Malayao Jr
Department of Science and Mathematics Education, College of Education, Mindanao State University – Iligan Institute of Technology Iligan City, Philippines
*Corresponding author email: katrina.bautista@g.msuiit.edu.ph

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Abstract. This study examined the level of psychological resilience among secondary student-athletes in Iligan City and its relationship with mental well-being, academic performance, and athletic performance. Using a descriptive–correlational research design, data were collected from 225 secondary student-athletes actively participating in organized school-based sports programs. Standardized instruments, including the Connor–Davidson Resilience Scale (CD-RISC-10) and the Warwick–Edinburgh Mental Well-Being Scale (WEMWBS), along with researcher-developed measures for academic and athletic performance, were utilized. Descriptive statistics and inferential analyses were employed to determine levels, group differences, and relationships among variables. Results revealed that student-athletes exhibited low to moderate levels of psychological resilience, with strengths in goal orientation, confidence, and task focus, but limitations in emotional regulation, adaptability, and stress-related growth. Despite these limitations, respondents demonstrated high levels of mental well-being, academic performance, and athletic performance. Psychological resilience was found to be significantly and positively associated with all outcome variables. Significant differences in resilience were observed according to gender, type of sport, and years of athletic experience. The findings indicate that while structured school-based sports participation provides important protective benefits, psychological resilience remains an

underdeveloped yet critical resource for student-athletes. The study underscores the need for intentional resilience-building interventions and supports the integration of a school-based Psychological Resilience Training Program within Physical Education and interscholastic sports initiatives to promote balanced performance, academic success, and long-term well-being among student-athletes.
Keywords: psychological resilience, student-athletes, mental well-being, academic performance, athletic performance

1. Introduction

School-based athletic programs have traditionally emphasized physical conditioning and technical skill acquisition as the primary foundations of athlete development. While physical preparation remains essential, contemporary research in sport psychology highlights that athletic success, academic functioning, and psychological health during adolescence are strongly influenced by psychological factors that extend beyond physical training alone (Côté & Hancock, 2016). Adolescence is a critical developmental stage characterized by increased academic demands, social pressures, and emotional variability, making student-athletes particularly vulnerable to stress and maladaptive outcomes when adequate psychological resources are lacking.

Secondary student-athletes are required to manage the dual responsibilities of academic engagement and competitive sport participation. Balancing intensive training schedules, competition-related pressure, and academic expectations places student-athletes at heightened risk for psychological strain, emotional exhaustion, and burnout (Zuckerman et al., 2021). In this context, **psychological resilience** defined as the capacity to adapt positively to adversity, recover from stress, and maintain effective functioning—has emerged as a key protective factor supporting sustained performance and well-being (Fletcher & Sarkar, 2012).

Empirical evidence indicates that resilient athletes demonstrate greater emotional regulation, persistence, motivation, and consistency in performance, particularly under conditions of physical and psychological stress (Barczak-Scarboro et al., 2024; Mei et al., 2025). Beyond athletic performance, psychological resilience has been shown to play a significant role in adolescents' mental well-being and academic engagement, facilitating adaptive coping, self-regulation, and sustained motivation in both educational and sport contexts (Min & Qian, 2024; Hu et al., 2025). Participation in structured sports environments further contributes to resilience development by fostering social connectedness, team cohesion, and positive self-perceptions (Eime et al., 2013; Kanaros & Bourdaniotis, 2025).

Despite growing international evidence supporting the role of resilience in youth sport and education, many school-based sports programs particularly in developing educational contexts continue to prioritize physical training while offering limited structured psychological support. Research suggests that resilience does not automatically develop through sport participation alone but requires intentional cultivation through supportive environments, psychosocial learning opportunities, and targeted interventions (Godor, 2025; Hu et al., 2025). In the Philippine context, empirical studies examining the simultaneous relationship between psychological resilience, mental well-being, academic performance, and athletic performance among secondary student-athletes remain scarce.

Moreover, existing literature often examines well-being, academic performance, and athletic performance independently or in paired relationships, resulting in a fragmented understanding of student-athlete functioning. Few studies adopt a holistic framework that positions psychological resilience as a central mechanism linking these domains, particularly within school-based sport systems outside Western settings. This gap is

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critical, as student-athletes experience academic, psychological, and athletic demands concurrently, with each domain influencing the others.

Guided by a predictive–correlational framework, the present study therefore examines psychological resilience as a key psychological resource associated with overall mental well-being, academic performance, and athletic performance among secondary student-athletes in Iligan City. The findings aim to provide empirical support for the integration of school-based psychological resilience training programs within Physical Education and interscholastic sports initiatives to promote balanced, sustainable student-athlete development.

2. Methods

This study was designed to examine psychological resilience as a central psychological factor associated with the overall well-being, academic performance, and athletic performance of secondary student-athletes. Specifically, the study sought to (1) describe the profile of student-athletes, (2) determine the levels of psychological resilience, well-being, academic performance, and athletic performance, (3) examine the relationships between psychological resilience and these key outcomes, and (4) identify profile variables associated with variations in resilience. Each objective was addressed using appropriate descriptive and inferential statistical procedures consistent with a predictive–correlational research design.

The participants of the study were 225 secondary student-athletes enrolled in public secondary schools in Iligan City. Respondents were actively involved in organized school-based sports programs and were selected through purposive sampling based on their active participation in school-based competitions and regular training schedules. Data collection was conducted during scheduled school visits after securing permission from school administrators. Participants were informed of the purpose of the study and provided informed consent. Confidentiality and anonymity were strictly observed throughout the data collection process.

The Connor–Davidson Resilience Scale (CD-RISC-10), developed by Kathryn M. Connor and Jonathan R. T. Davidson, and the Warwick–Edinburgh Mental Well-Being Scale (WEMWBS), developed by Sarah Stewart-Brown, are internationally validated instruments with established reliability and construct validity across adolescent and athletic populations. Their inclusion ensures that resilience and well-being are measured using psychometrically sound tools widely accepted in sports psychology and educational research.

Descriptive statistics (frequency, percentage, mean, and weighted mean) were used to describe respondent profiles and variable levels. Inferential statistics, including Pearson correlation, t-tests, and ANOVA, were applied to determine relationships and group differences at a 0.05 level of significance.

3. Results and Discussion

Table 1. Age and Gender Distribution of the Respondents

Age	Gender		Total
	Male	Female	
13 years old	24	6	**30**
14 years old	52	36	**88**
15 years old	42	21	**63**
16 years old	12	8	**20**
17 years old	15	18	**23**
18 years old	1	0	**1**
Total	**146**	**79**	**225**

The results indicate that the majority of respondents were male student-athletes (n =

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146) and were primarily concentrated in early adolescence, particularly within the 14–15 age range. This distribution reflects a higher representation of male participants and younger adolescents in school-based sports programs.

The concentration of participants in early adolescence indicates that this stage is a critical period for engagement in school-based sports, characterized by greater exploration of athletic interests and higher motivation supported by peer influence and structured programs. As academic demands increase in later adolescence, participation often declines, which may explain the lower representation of older students. Importantly, structured school sports during early adolescence allow for systematic management of training demands. Recent evidence shows that practical load-monitoring tools are commonly used in youth sport settings to optimize training frequency and intensity while reducing injury and psychological stress risk (Macedo et al., 2024).

Overall, these findings highlight the importance of structured, well-monitored, and gender-inclusive sports programs to support sustained participation, balanced development, and long-term well-being among student-athletes.

Table 2. Grade Level and Sports Participation of the Respondents

Sports Participation	Grade Level					
	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Grade 12
Arnis	0	27	0	0	2	2
Athletics	0	1	5	0	0	1
Badminton	0	14	0	0	11	2
Baseball	8	2	0	0	0	0
Basketball	8	6	8	11	0	3
Football	2	2	3	2	0	0
Gymnastic	0	4	0	0	0	0
Lawn Tennis	0	7	5	0	0	0
Sepak Takraw	2	0	2	0	0	0
Softball	7	0	0	3	0	0
Table Tennis	0	9	7	0	0	0
Taekwondo	0	15	0	0	0	0
Track And Field	0	4	0	0	0	0
Volleyball	0	6	3	23	0	2
Wushu	2	1	2	0	1	0
Total	29	98	35	39	14	10
Overall Total	**225**					

Table 2 presents the distribution of student-athlete participation across sports from Grades 7 to 12 (N = 225). Higher participation was observed in Grades 7 and 8, with Grade 7 students mainly involved in team sports, while Grade 8 students showed greater participation in individual and skill-based sports. Grade 9 students demonstrated engagement in both team and individual sports, indicating a balanced participation pattern. Participation in Grade 10 was most evident in team sports, particularly basketball and volleyball. In contrast, Grades 11 and 12 showed a noticeable decline in participation across most sports.

The findings indicate that sports participation is more prominent in the lower grade levels and decreases as students progress to senior high school. Higher engagement in Grades 7 and 8 reflects early adolescent involvement characterized by exploration and enjoyment, while the shift toward skill-based sports in Grade 8 is consistent with

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developing motor abilities and emerging sport preferences (Côté & Hancock, 2016; Fraser-Thomas et al., 2008). The decline in participation in Grades 11 and 12 supports previous findings that increased academic demands and transition-related priorities limit continued sports involvement during senior high school (Valenzuela-Moss et al., 2024; Pasno, 2024). These results suggest that schools may need to adopt strategies that better support academic–athletic balance to help sustain student participation in organized sports.

Table 3. Number of Years as Student-Athletes

	Division Meet	**Regional Meet**	**Palarong Pambansa**	**Invitational Game**	**Total**
1-2 Years	31	25	18	27	**101**
3-4 Years	29	28	27	8	**118**
5+ Years	2	2	4	0	**6**
Overall Total	**62**	**55**	**49**	**35**	**225**

The analysis shows that student-athlete participation in competitions varied according to years of athletic experience. Athletes with one to two years of experience primarily participated in local-level competitions, including Division Meets and Invitational Games. The highest level of participation was observed among athletes with three to four years of experience, who demonstrated greater involvement in higher-level competitions such as Division Meets, Regional Meets, and the Palarong Pambansa. In contrast, athletes with five or more years of experience recorded the lowest number of participations, with involvement concentrated mainly at the national level.

The observed decline in participation among athletes with longer experience may be associated with increasing academic demands, sport specialization, and developmental transitions commonly experienced during late adolescence. Although burnout was not directly measured in the present study, existing research suggests that intensive specialization and prolonged competitive exposure are linked to higher levels of emotional and physical exhaustion among adolescent athletes (Hösl et al., 2025). These pressures may contribute to reduced athletic engagement as academic responsibilities intensify, underscoring the need for developmentally appropriate support systems that address both psychological well-being and academic balance.

Table 4. Frequency of Training

Training	**Frequency**	**Percent**
Days	128	56.89%
Weeks	97	43.11%
Total	**225**	**100%**

The high level of commitment observed—with 56.89% of respondents engaging in daily training—reflects the intensive and highly structured nature of school-based sports programs in Iligan City. While this frequency is intended to optimize skill acquisition and athletic consistency, prior longitudinal research indicates that high training loads foster psychological growth only when paired with adequate recovery and monitoring (Barczak-Scarboro et al., 2024). Although recovery and burnout were not directly assessed in this study, these findings suggest that sustained training intensity without sufficient psychological rest may place secondary student-athletes at risk for declining resilience, particularly given their dual academic–athletic responsibilities.

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Table 5. Student-Athletes' Level of Resilience

Indicators	Mean	Verbal Interpretation
1. I believe I can achieve my goals, even if there are obstacles.	3.14	Moderate Resilience
2. I think of myself as a strong person when dealing with life's challenges.	2.94	Moderate Resilience
3. Under pressure, I stay focused and think clearly.	2.81	Moderate Resilience
4. I am not easily discouraged by failure.	2.60	Moderate Resilience
5. I am able to handle unpleasant or painful feelings.	2.57	Low Resilience
6. I tend to bounce back after illness or hardship.	2.55	Low Resilience
7. I can deal with whatever comes my way.	2.38	Moderate Resilience
8. I try to see the humorous side of things when I am faced with problems.	2.23	Moderate Resilience
9. I am able to adapt when changes occur.	2.09	Low Resilience
10. Having to cope with stress makes me stronger.	1.95	Low Resilience
Weighted Mean	**2.52**	**Low Resilience**

The overall weighted mean for psychological resilience was 2.52, interpreted as low resilience, indicating limited adaptive capacity among student-athletes when dealing with stress and adversity. Higher mean scores were observed for indicators related to goal persistence (M = 3.14), perceived personal strength (M = 2.94), and ability to stay focused under pressure (M = 2.81). In contrast, lower mean scores were recorded for handling unpleasant emotions (M = 2.57), bouncing back after hardship (M = 2.55), adapting to change (M = 2.09), and perceiving stress as a source of strength (M = 1.95).

Table 6. Student-Athletes' Level of Mental Well-Being

Indicator	Mean	Verbal Interpretation
1. I've been interested in new things.	3.90	High Well-Being
2. I've been feeling cheerful.	3.89	High Well-Being
3.I've been feeling good about myself.	3.71	High Well-Being
4. I've been feeling confident.	3.60	High Well-Being
5. I've had energy to spare.	3.54	High Well-Being
6. I've been thinking clearly.	3.52	High Well-Being
7.I've been feeling close to other people.	3.52	High Well-Being
8. I've been able to make up my own mind about things.	3.52	High Well-Being
9. I've been dealing with problems well.	3.35	Moderate Well-Being
10. I've been feeling relaxed.	3.31	Moderate Well-Being
11. I've been feeling loved.	3.28	Moderate Well-Being
12. I've been feeling interested in other people.	3.18	Moderate Well-Being
13. I've been feeling useful.	3.12	Moderate Well-Being
14. I've been feeling optimistic about the future.	2.97	Moderate Well-Being
Weighted Mean	**3.46**	**High Well-Being**

The low overall level of psychological resilience observed among respondents contrasts with their high levels of mental well-being, academic performance, and athletic performance. This pattern suggests that while student-athletes benefit from external protective factors such as structured training environments, peer support, and coaching guidance, internal resilience

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capacities—particularly emotional regulation and adaptability—may remain underdeveloped. Similar resilience profiles have been reported in adolescent athlete populations, where motivational and task-oriented strengths often exceed emotional coping skills (Fletcher & Sarkar, 2012; Barczak-Scarboro et al., 2024).

Table 6 shows that student-athletes demonstrated a high level of mental well-being, as reflected by a weighted mean of 3.46 on the Warwick–Edinburgh Mental Well-Being Scale (WEMWBS). Higher mean scores were observed for indicators related to interest in new things (M = 3.90) and cheerfulness (M = 3.89), indicating positive emotional functioning among the respondents. In contrast, optimism about the future obtained a relatively lower mean score (M = 2.97), interpreted as moderate well-being.

The high mental well-being observed despite low resilience levels may be explained by the structured and socially supportive nature of school-based sports participation. Organized sports environments provide psychosocial benefits such as peer affiliation, coaching support, and a sense of belonging, which contribute positively to adolescent well-being (Eime et al., 2013; Zuckerman et al., 2021). However, these external supports may temporarily buffer stress without necessarily strengthening internal resilience capacities.

Table 7.1 Student-Athletes' Level of Academic Performance

Indicator	Mean	Verbal Interpretation
1. I can apply discipline from sports to my studies.	4.09	High
2. My participation in sports improves my focus and learning habits.	3.94	High
3. I stay motivated to maintain good grades during the sports season.	3.84	High
4. I am confident in my ability to meet academic expectations.	3.81	High
5. I perform well academically despite my athletic commitments.	3.71	High
6. I manage my study time effectively despite training schedules.	3.64	High
7. I am able to balance my academic responsibilities with my athletic training.	3.62	High
8. I can complete my school requirements on time.	3.59	High
9. My teachers recognize my effort to manage both academics and sports.	3.59	High
10. I am satisfied with my current academic performance.	3.30	Moderate
Weighted Mean	**3.71**	**High**

The results indicate that student-athletes demonstrated a high level of academic performance, as reflected by a weighted mean of 3.71. The highest-rated indicator was the application of discipline learned from sports to academic work (M = 4.09). High mean scores were also observed for improved focus and learning habits (M = 3.94). Slightly lower mean scores were noted for satisfaction with academic performance (M = 3.30) and confidence in meeting academic expectations (M = 3.81).

The findings support evidence that sport participation fosters transferable skills such as self-regulation, persistence, and goal orientation that positively influence academic engagement (Chacón-Cuberos et al., 2020; Cepeda-González et al., 2023). Furthermore, recent studies highlight exercise motivation as a mediating mechanism through which resilience enhances academic functioning among adolescents (Min & Qian, 2024).

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Table 7.2 Student-Athletes' Level of Athletic Performance

Indicator	Mean	Verbal Interpretation
1. I maintain my motivation even after losing a competition.	4.10	High
2. I represent my school with pride and sportsmanship.	4.10	High
3. I actively set and achieve personal performance goals.	4.01	High
4. I can adapt my strategies based on my coach's advice.	3.99	High
5. I respond positively to feedback from my coach and teammates.	3.96	High
6. I continuously strive to improve my athletic performance.	3.96	High
7. My coach recognizes my improvement over time.	3.79	High
8. I am confident in my athletic abilities.	3.70	High
9. I consistently perform at my best during competitions.	3.66	High
10. I can manage stress and pressure during training or competition.	3.44	High
Weighted Mean	**3.87**	**High**

The results show that student-athletes demonstrated a high level of athletic performance, with a weighted mean of 3.87. High mean scores were observed for indicators related to maintaining motivation after losing and demonstrating sportsmanship (M = 4.10), reflecting positive competitive behavior. In addition, student-athletes who engaged in daily training recorded higher weighted means for both academic performance (M = 3.70) and athletic performance (M = 3.87), indicating stronger outcomes among those with regular training participation.

These results indicate that student-athletes possess strong motivational and behavioral competencies that support consistent performance. Research suggests that resilient athletes are better able to sustain motivation, regulate performance-related stress, and maintain performance quality over time (Mei et al., 2025; Mendizabal, 2024).

Table 8. Profile Variables Associated with Psychological Resilience

Profile Variable	Statistical Test	Result	Interpretation
Gender	t(223) = 3.12	p = .002	Males show significantly higher resilience
Type of Sport	F(2, 222) = 4.09	p = .018	Significant differences by sport type
Years of Experience	F(2, 222) = 5.12	p = .007	Highest resilience at 3–4 years

The statistical results confirm that psychological resilience among student-athletes is significantly shaped by gender, sport type, and competitive experience, reinforcing the foundational findings of Ozkara et al. (2016) regarding the predictive power of physical activity on mental toughness. The significant difference observed between genders (t=3.12,p=.002) indicates higher resilience in males, which aligns with Ozkara et al. (2016) who noted that males often benefit from higher "licensed sport status" and greater competitive exposure. This suggests that traditional athletic environments may offer males more frequent social reinforcement and opportunities to internalize coping mechanisms.

Furthermore, the significant variance across sport types (F=4.09,p=.018) highlights the importance of the athletic context; as suggested by Ozkara et al. (2016), organized sports provide a structured social system to manage psychosocial problems. The higher resilience typically found in team settings likely stems from shared responsibility and peer support,

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which serves as a collective buffer against individual failure. Finally, the highly significant effect of experience (F=5.12,p=.007) reveals a peak at 3–4 years, supporting the view that resilience is a learned trait fostered through consistent activity. However, the subsequent stabilization suggests that while resilience builds through repeated exposure to competition, prolonged involvement may eventually be challenged by increased performance and academic pressures. Ultimately, these results emphasize that resilience is moderated by the athlete's profile, necessitating targeted psychological interventions for female athletes and those in individual sports who may lack inherent social support systems.

Table 9. Relationship Between Psychological Resilience, Athletic Performance, and Well-Being

Variable Relationship	r	p-value	Interpretation
Resilience ↔ Mental Well-Being	.49	< .001	Moderate positive relationship
Resilience ↔ Academic Performance	.41	< .001	Moderate positive relationship
Resilience ↔ Athletic Performance	.52	< .001	Moderate positive relationship

The results revealed a statistically significant and moderate positive relationship between psychological resilience and athletic performance ($r = .52$, $p < .001$). Significant positive relationships were also found between psychological resilience and academic performance ($r = .41$, $p < .001$), as well as overall mental well-being ($r = .49$, $p < .001$). These findings indicate that higher levels of psychological resilience were associated with better athletic outcomes, stronger academic functioning, and higher levels of mental well-being among student-athletes.

These findings highlight the contextual nature of resilience development. Team-based sports provide opportunities for shared coping, social reinforcement, and collective problem-solving, which contribute to resilience development (Xu & Tian, 2025; Kanaros & Bourdaniotis, 2025). The peak resilience observed among athletes with moderate experience supports evidence that resilience develops through accumulated exposure to competitive demands but may plateau without intentional psychological support (Côté & Hancock, 2016).

5. Conclusion

This study concludes that secondary student-athletes in Iligan City generally exhibit low to moderate psychological resilience, characterized by strengths in goal orientation, confidence, and task focus, but limitations in emotional regulation, adaptability, and stress-related growth. Despite these gaps, student-athletes demonstrated high levels of mental well-being, academic performance, and athletic performance, suggesting that structured school-based sports participation, regular training, and supportive social environments function as important protective factors.

Psychological resilience was found to be significantly associated with well-being and performance outcomes, underscoring its role as a central psychological resource in student-athlete development. Moreover, differences in resilience across gender, type of sport, and years of athletic experience indicate that resilience is shaped by social context and accumulated sport exposure rather than by participation alone.

Overall, the findings highlight the need for intentional resilience-building interventions within school sports programs. Integrating structured psychological skills training—such as emotional regulation strategies, stress-management techniques, and reflective coping practices—within Physical Education and interscholastic sports initiatives may enhance

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student-athletes' capacity for balanced performance, academic success, and long-term well-being.

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