International Journal for Multidisciplinary Research (IJFMR)
E-ISSN: 2582-2160 ● Website: www.ijfmr.com ● Email: editor@ijfmr.com

Assessing Time Management Factors Among Student-Athletes as a Framework for Peer-Coaching Mentoring Program Development

Maribel A. De Guzman[1], Cherry Ann M. Rivera[2], Joel G. Marquez[3], Danna Kristalene P. Orpiana[4], Merle T. Acibar[5]

[1]Tarlac Agricultural University
[2,3]Don Mariano Marcos Memorial State University
[4]Cavite State University Main Campus, Indang, Cavite
[5]De La Salle University, Manila

Abstract

This study assessed the time management factors among student-athletes affiliated with the State Colleges and Universities Athletic Association (SCUAA), the Southern Tagalog Regional Association of State Universities and Colleges (STRASUC), and the National Collegiate Athletic Association Philippines (NCAA-Philippines) across four universities. A quantitative descriptive-correlational research design was employed, and data were collected from 300 respondents using the adapted Time Management Behavior Scale (TMBS). Descriptive statistics, independent samples t-tests, one-way analysis of variance (ANOVA), and Pearson product-moment correlations were applied. It is found that student-athletes demonstrate a moderate overall level of time management behavior (M = 3.21, SD = 0.57). Significant differences are observed by year level and athletic association affiliation, but not by sex or sport type. Perceived control of time and goal-setting behavior show the strongest positive correlations with academic grade point average (GPA) (r = .42 and .38, respectively), while mechanics of time management is most strongly associated with athletic training adherence (r = .40). The findings provide a systematic empirical foundation for the design of a differentiated peer-coaching mentoring program for Filipino collegiate student-athletes.

Keywords: Time Management, Student-Athletes, SCUAA, STRASUC, NCAA-Philippines, Peer-Coaching, Mentoring Program, Academic Performance, Athletic Adherence, TMBS

1. Introduction

Participation in intercollegiate athletics imposes a structurally complex set of demands on student-athletes that distinguishes them from the general student population. Unlike their non-athlete counterparts, student-athletes must navigate mandatory training sessions, competitive schedules, travel obligations, and recovery requirements simultaneously with academic coursework, examinations, and institutional requirements [1]. This dual-role existence creates persistent time pressure that, when unmanaged, compounds into role conflict, academic underperformance, and psychological strain [2, 3]. Time management, broadly operationalized as the behavioral and cognitive process of planning, monitoring,

and controlling how time is allocated across competing demands [4], has therefore emerged as a pivotal competency mediating student-athlete success across both athletic and academic domains.

In the Philippine higher education context, intercollegiate athletics programs are organized under several governing bodies, the most prominent of which include the SCUAA, STRASUC, and the NCAA-Philippines. These three associations collectively administer intercollegiate sport competitions across state and private higher education institutions spanning multiple Philippine regions. The convergence of institutional athletic demands and academic expectations within these programs creates conditions analogous to those documented in international student-athlete literature; yet the specific time management challenges faced by Filipino student-athletes have received scant empirical attention [5].

The global literature consistently demonstrates that time management behavior is significantly associated with academic performance, psychological well-being, and performance across domains [4, 6, 7]. Macan, T.H., Shahani, C., Dipboye, R.L., and Phillips, A.P. (1990) [8] established a foundational four-factor model of time management encompassing setting goals and priorities (SGP), mechanics of time management (MTM), perceived control of time (PCT), and preference for organization (PFO), a taxonomy that has been widely validated across educational and occupational populations. Among student-athletes specifically, time management deficits have been associated with elevated academic risk, poor training adherence, and burnout [9, 10, 11]. Despite this, no published study to date has applied a validated multidimensional time management instrument to Filipino collegiate student-athletes.

Peer-coaching and mentoring programs have garnered considerable empirical support as cost-effective, scalable, and developmentally appropriate mechanisms for building academic competencies among student populations [12, 13, 14]. However, the design of such programs must be anchored in a systematic empirical understanding of the specific needs of their target population. Without such assessment, any proposed peer-coaching mentoring program risks misalignment between program content and participant needs [15].

This study therefore addressed the following research questions: (1) What is the level of time management behavior among student-athletes across the four TMBS dimensions? (2) Are there significant differences in time management factor scores when respondents are grouped by sex, year level, sport type, and athletic association affiliation? (3) What is the relationship between time management factors and academic GPA and athletic training adherence?

2. Materials and Methods

2.1 Research Design

A quantitative descriptive-correlational research design was employed [16]. The descriptive component characterized the time management factor profiles of student-athletes across four participating institutions; the correlational component examined the relationships between TMBS subscale scores and two outcome variables: cumulative GPA and coach-rated athletic training adherence.

2.2 Participants and Setting

The study population comprised all currently enrolled undergraduate student-athletes actively competing in varsity programs affiliated with SCUAA (Regions I and III), STRASUC (Southern Tagalog), and NCAA-Philippines across four universities. The estimated eligible population was approximately 520 individuals.

Sample size was determined using Raosoft and cross-validated with G*Power 3.1 [17] for correlation analysis (medium effect size r = .30, alpha = .05, power = .95; minimum n = 252). A target of N = 300

was set to account for projected 15 to 20 percent attrition. Stratified random sampling ensured proportional representation across institutions, affiliations, sport type, sex, and year level. Table 1 presents the achieved distribution.

Table 1: Sample Distribution by Institution, Athletic Affiliation, and Sex (N = 300)

Institution	Athletic Affiliation	Male	Female	Total
University A	SCUAA - Region I	40	35	75
University B	SCUAA - Region III	38	37	75
University C	STRASUC	42	33	75
University D	NCAA-Philippines	35	40	75
Total		**155**	**145**	**300**

Note: Institution names are anonymized per institutional ethics protocol. SCUAA = State Colleges and Universities Athletic Association; STRASUC = Southern Tagalog Regional Association of State Universities and Colleges; NCAA-PH = National Collegiate Athletic Association Philippines.

2.3 Instrument

The primary instrument was the adapted Time Management Behavior Scale (TMBS) [8, 18], comprising four subscales: Setting Goals and Priorities (SGP; 15 items), Mechanics of Time Management (MTM; 19 items), Perceived Control of Time (PCT; 17 items), and Preference for Organization (PFO; 15 items). All items are rated on a five-point Likert-type scale (1 = Does not describe me at all to 5 = Describes me very well). Five items per subscale were added to address student-athlete-specific contexts (e.g., athletic schedule management, travel-related time loss), following Hinkin, T.R. (1998) [19] item development guidelines. Content validation by a seven-member expert panel yielded item-level content validity index (I-CVI) of 0.80 or higher and scale-level content validity index (S-CVI) of 0.90 or higher [20] for all retained items.

Academic performance was operationalized as cumulative GPA retrieved from institutional registrar records (4.0 scale). Athletic training adherence was assessed via the Athletic Training Adherence Rating Scale (ATARS), a five-item coach-rated instrument (range 5 to 25) developed for this study and subjected to the same content validation procedures.

2.4 Data Collection

Following institutional ethics approval and written informed consent from all participants (and parental consent for participants below 18 years), survey data were collected online via secured Google Forms during scheduled orientation sessions coordinated with institutional Athletic Offices. Coaches completed ATARS ratings matched to participants via coded athlete identifiers, accompanied by standardized rating guides to ensure cross-institutional consistency.

2.5 Data Analysis

Analyses were conducted in IBM SPSS Statistics Version 28 and IBM AMOS Version 28. Confirmatory factor analysis (CFA) was performed to verify the four-factor structure (target fit: CFI of 0.95 or higher, TLI of 0.95 or higher, RMSEA of 0.06 or lower, SRMR of 0.08 or lower) [21]. Internal consistency was assessed via Cronbach's alpha and McDonald's omega; convergent validity via composite reliability (CR of 0.70 or higher) and average variance extracted (AVE of 0.50 or higher); discriminant validity via the

Fornell-Larcker criterion [22]. Test-retest reliability (n = 20 pilot subsample, two-week interval) was estimated via intraclass correlation coefficients (ICC; target of 0.75 or higher).

Mean score classification used the following rubric: 1.00 to 1.79 (Very Low), 1.80 to 2.59 (Low), 2.60 to 3.39 (Moderate), 3.40 to 4.19 (High), and 4.20 to 5.00 (Very High). Group differences were examined via independent samples t-tests (sex, sport type) and one-way ANOVA with post-hoc Tukey HSD (year level, affiliation); effect sizes are reported as Cohen's d and partial eta-squared, respectively [23]. Bivariate associations between TMBS subscales and outcomes were examined via Pearson r (Spearman's rho substituted where distributional assumptions were unmet), interpreted using Cohen, J. (1988) [23] conventions (small: r = .10; medium: r = .30; large: r = .50). All tests were two-tailed at alpha = .05. Common method variance was assessed using Harman's single-factor test [24].

2.6 Ethical Considerations

The study was conducted in compliance with the Declaration of Helsinki, the Philippine Data Privacy Act of 2012 (Republic Act No. 10173), and Commission on Higher Education (CHED) ethical guidelines. Participation was voluntary; withdrawal incurred no academic or athletic penalty. Data were de-identified and stored in password-protected repositories accessible only to members of the research team.

3. Results

3.1 Instrument Validity and Reliability

CFA of the four-factor model yielded adequate fit: CFI = .96, TLI = .95, RMSEA = .055 (90% CI [.047, .063]), SRMR = .067. Discriminant validity was confirmed via the Fornell-Larcker criterion for all subscale pairs. Table 2 summarizes internal consistency, composite reliability, AVE, and test-retest reliability. All indices met or exceeded the a priori thresholds. Harman's single-factor test indicated that no single factor accounted for more than 31% of total variance, providing no evidence of problematic common method variance [24].

Table 2: Reliability and Validity Indices for the Adapted TMBS Subscales (N = 300)

Subscale	k	a	w	CR	AVE	ICC	95% CI
Setting Goals and Priorities (SGP)	15	.82	.84	.83	.52	.81	[.65, .91]
Mechanics of Time Management (MTM)	19	.85	.87	.86	.50	.84	[.70, .92]
Perceived Control of Time (PCT)	17	.84	.86	.85	.51	.82	[.67, .91]
Preference for Organization (PFO)	15	.79	.81	.80	.50	.77	[.61, .89]

Note: k = number of items; a = Cronbach's alpha; w = McDonald's omega; CR = composite reliability; AVE = average variance extracted; ICC = intraclass correlation coefficient (test-retest, two-week interval, pilot n = 20). 95% CIs for ICC computed using Fisher's Z transformation.

3.2 Level of Time Management Behavior

Table 3 presents descriptive statistics for each TMBS subscale and the overall composite. The overall mean was M = 3.21 (SD = 0.57, 95% CI [3.14, 3.27]), situating the sample within the Moderate

classification band. Preference for Organization registered the highest subscale mean (M = 3.34, SD = 0.63), approaching the High boundary. Mechanics of Time Management yielded the lowest mean (M = 3.08, SD = 0.68), also Moderate but notably lower than Preference for Organization. This discrepancy is indicative of a gap between dispositional organizational preference and the behavioral enactment of concrete planning strategies [25].

Table 3: Descriptive Statistics for TMBS Subscales and Overall Composite (N = 300)

Subscale	M	SD	95% CI	Min	Max	Classification
Setting Goals and Priorities (SGP)	3.21	0.61	[3.14, 3.28]	1.40	5.00	Moderate
Mechanics of Time Management (MTM)	3.08	0.68	[3.01, 3.16]	1.21	5.00	Moderate
Perceived Control of Time (PCT)	3.19	0.65	[3.12, 3.26]	1.17	5.00	Moderate
Preference for Organization (PFO)	3.34	0.63	[3.27, 3.41]	1.50	5.00	Moderate
Overall TMBS	**3.21**	**0.57**	**[3.14, 3.27]**	**1.40**	**4.89**	**Moderate**

Note: Scale range: 1 to 5. Classification bands per a priori rubric. 95% CIs computed using the standard error of the mean. SGP = Setting Goals and Priorities; MTM = Mechanics of Time Management; PCT = Perceived Control of Time; PFO = Preference for Organization.

3.3 Group Differences in Time Management Factor Scores

3.3.1 Sex

Independent samples t-tests revealed no statistically significant sex differences on any TMBS subscale (all ps > .05; Table 4). Effect sizes were uniformly negligible (d = 0.09 to 0.16). The null hypothesis that there is no significant difference by sex is retained.

Table 4: Independent Samples t-Test Results: TMBS Subscale Scores by Sex

Subscale	Male M (SD)	Female M (SD)	t(298)	p	d	Decision
SGP	3.18 (0.63)	3.24 (0.59)	-0.93	.354	0.10	Retain Ho
MTM	3.05 (0.70)	3.11 (0.66)	-0.85	.397	0.09	Retain Ho
PCT	3.23 (0.67)	3.15 (0.63)	1.19	.235	0.12	Retain Ho
PFO	3.29 (0.65)	3.39 (0.61)	-1.51	.132	0.16	Retain Ho

Note: Male n = 155; Female n = 145. Two-tailed p-values. d = Cohen's d (pooled SD). Ho = null hypothesis.

3.3.2 Year Level

One-way ANOVA revealed significant year-level differences on all four subscales (Table 5). Effect sizes ranged from small to moderate (partial eta-squared = .049 to .077), with Perceived Control of Time demonstrating the largest effect. Post-hoc Tukey HSD tests indicated that first-year athletes scored significantly lower than third- and fourth-year athletes on all subscales (all corrected ps < .05); second-year athletes differed significantly from fourth-year athletes on Setting Goals and Priorities and Perceived Control of Time. The null hypothesis that there is no significant difference by year level is rejected.

Table 5: One-Way ANOVA Results: TMBS Subscale Scores by Year Level

Subscale	1st Yr M (SD)	2nd Yr M (SD)	3rd Yr M (SD)	4th Yr M (SD)	F(3,296)	p	n2p
SGP	3.02 (0.64)	3.18 (0.60)	3.31 (0.58)	3.42 (0.55)	6.84	<.001	.065
MTM	2.89 (0.72)	3.06 (0.68)	3.17 (0.65)	3.24 (0.62)	5.11	.002	.049
PCT	2.98 (0.69)	3.15 (0.64)	3.28 (0.61)	3.44 (0.58)	8.27	<.001	.077
PFO	3.14 (0.67)	3.28 (0.63)	3.44 (0.60)	3.56 (0.57)	7.42	<.001	.070

Note: 1st Year n = 78, 2nd Year n = 83, 3rd Year n = 74, 4th Year n = 65. p < .05 for all significant findings. n2p = partial eta-squared. Post-hoc Tukey HSD: first-year athletes scored significantly lower than third- and fourth-year athletes on all subscales.

3.3.3 Athletic Association Affiliation

One-way ANOVA revealed significant affiliation differences on all four subscales (Table 6; partial eta-squared = .034 to .044). Post-hoc Tukey HSD indicated that NCAA-Philippines athletes scored significantly higher than SCUAA athletes on all four subscales (all corrected ps < .05) and higher than STRASUC athletes on Mechanics of Time Management and Perceived Control of Time (corrected ps < .05). SCUAA and STRASUC did not differ significantly on any subscale. The null hypothesis that there is no significant difference by affiliation is rejected.

Table 6: One-Way ANOVA Results: TMBS Subscale Scores by Athletic Association Affiliation

Subscale	SCUAA M (SD)	STRASUC M (SD)	NCAA-PH M (SD)	F(2,297)	p	n2p
SGP	3.12 (0.63)	3.18 (0.60)	3.38 (0.56)	5.29	.005	.034
MTM	2.98 (0.70)	3.04 (0.67)	3.28 (0.62)	6.14	.002	.040
PCT	3.09 (0.67)	3.16 (0.64)	3.38 (0.60)	6.87	.001	.044
PFO	3.24 (0.65)	3.31 (0.62)	3.52 (0.58)	6.02	.003	.039

Note: SCUAA n = 155, STRASUC n = 75, NCAA-Philippines n = 70. n2p = partial eta-squared. Post-hoc Tukey HSD: NCAA-Philippines athletes scored higher than SCUAA athletes on all subscales, and higher than STRASUC athletes on MTM and PCT.

3.3.4 Sport Type

No statistically significant differences were observed between individual-sport (n = 128) and team-sport (n = 172) athletes on any subscale (all ps > .05; Table 7). Effect sizes were small throughout (d = 0.10 to 0.15). The null hypothesis that there is no significant difference by sport type is retained.

Table 7: Independent Samples t-Test Results: TMBS Subscale Scores by Sport Type

Subscale	Individual M (SD)	Team M (SD)	t(298)	p	d	Decision
SGP	3.26 (0.59)	3.17 (0.63)	1.40	.162	0.15	Retain Ho
MTM	3.12 (0.66)	3.05 (0.70)	0.97	.333	0.10	Retain Ho
PCT	3.24 (0.63)	3.15 (0.67)	1.30	.194	0.14	Retain Ho
PFO	3.38 (0.61)	3.31 (0.64)	1.06	.289	0.11	Retain Ho

Note: Individual sports n = 128, Team sports n = 172. Two-tailed p-values. d = Cohen's d (pooled SD).

3.4 Relationships Between Time Management Factors and Outcomes

Table 8 presents the full correlation matrix. All four TMBS subscales correlated significantly and positively with both academic GPA and coach-rated training adherence (ATARS; all ps < .01). With respect to academic GPA, Perceived Control of Time demonstrated the strongest association (r = .42), followed by Setting Goals and Priorities (r = .38), Mechanics of Time Management (r = .29), and Preference for Organization (r = .22), representing medium to small-medium effects per Cohen, J. (1988) [23]. With respect to athletic training adherence, the pattern differed: Mechanics of Time Management showed the strongest correlation (r = .40), followed by Perceived Control of Time (r = .31), Setting Goals and Priorities (r = .28), and Preference for Organization (r = .24). All subscale intercorrelations were positive and significant (r = .53 to .71), reflecting subscale coherence without multicollinearity. The null hypotheses for the relationships between time management and both GPA and athletic adherence are both rejected.

Table 8: Pearson Product-Moment Correlation Matrix: TMBS Subscales, GPA, and ATARS (N = 300)

Variable	1	2	3	4	5	6	M (SD)
1. Academic GPA	--						2.87 (0.41)
2. ATARS (Coach-Rated Adherence)	.34**	--					18.62 (3.14)
3. SGP	.38**	.28**	--				3.21 (0.61)
4. MTM	.29**	.40**	.64**	--			3.08 (0.68)
5. PCT	.42**	.31**	.71**	.68**	--		3.19 (0.65)
6. PFO	.22**	.24**	.55**	.58**	.53**	--	3.34 (0.63)

Note: **p < .01 (two-tailed). ATARS = Athletic Training Adherence Rating Scale (coach-rated composite, range 5 to 25). GPA reported on a 4.0 scale. All variables met normality assumptions (Kolmogorov-Smirnov ps > .05), justifying Pearson r. Subscale intercorrelations are presented in the lower triangular portion.

4. Discussion

4.1 Moderate Time Management and the Mechanics-Organization Gap

The finding of moderate overall time management behavior (M = 3.21) is consistent with the international literature documenting time management as a domain of genuine challenge for student-athletes [10, 11]. The highest subscale score was recorded for Preference for Organization (M = 3.34), a dispositional dimension, while the lowest was recorded for Mechanics of Time Management (M = 3.08), a behavioral enactment dimension. This discrepancy between organizational values and behavioral execution parallels findings in the self-regulated learning literature, where positive attitudes toward organization do not reliably translate into sustained planning behavior without explicit skill instruction and environmental scaffolding [25, 26]. In the student-athlete context, this gap is structurally comprehensible: athletic schedules are externally regulated by coaching staff, leaving athletes with limited practice in autonomous scheduling of their academic obligations. A peer-coaching program must therefore prioritize explicit instruction and modeling of concrete time management tools such as digital planners, time-blocking strategies, and academic-athletic schedule integration, rather than assuming that organizational preferences are sufficient to generate organized behavior.

4.2 Year Level and Athletic Affiliation as Structurally Meaningful Moderators

The absence of significant sex and sport-type differences is consistent with more recent evidence suggesting that these variables are not reliable moderators of time management behavioral profiles [4, 7]. The negligible effect sizes (d of 0.16 or lower) observed reinforce this interpretation. From a program design perspective, these null findings indicate that the core content of a peer-coaching intervention need not be differentiated by sex or sport type, though contextual adaptations in illustrative examples remain appropriate.

The significant and monotonically increasing year-level gradient, with first-year athletes lowest and fourth-year athletes highest on all four subscales, is interpretable through two non-mutually exclusive mechanisms. First, student-athletes may genuinely develop more effective time management behaviors through accumulated experience navigating dual-role demands, consistent with Zimmerman, B.J. (2008) [26] developmental model of self-regulated learning. Second, the gradient may partly reflect survivorship bias: athletes with persistently poor time management are more likely to exhaust academic eligibility or withdraw from programs by the upper year levels. The cross-sectional design cannot adjudicate between these explanations; longitudinal investigation is needed. Regardless of mechanism, the practical implication is clear: first- and second-year student-athletes represent the highest-priority cohort for peer-coaching intervention.

The significant affiliation differences, with NCAA-Philippines athletes scoring consistently higher than SCUAA-affiliated athletes on all subscales, are interpretable through the lens of institutional resource endowment. NCAA-Philippines member institutions, predominantly private higher education institutions in the National Capital Region, generally maintain more extensive student-athlete academic support infrastructure and formalized eligibility monitoring than state colleges and universities operating under SCUAA across dispersed regional campuses. These structural differences underscore the importance of

calibrating peer-coaching program intensity to institutional context: the SCUAA-affiliated context may require more comprehensive and structurally supported implementation than institutions where existing support infrastructure already partially addresses student-athlete time management needs.

4.3 Differential Predictive Validity Across Outcome Domains

The finding that Perceived Control of Time demonstrated the strongest correlation with academic GPA (r = .42) replicates the meta-analytic pattern identified by Aeon, B. and Aguinis, H. (2017) [4], in which Perceived Control of Time consistently emerged as the most robust academic outcome predictor across populations. Theoretically, Perceived Control of Time functions as a metacognitive regulatory mechanism enabling adaptive response to the unpredictable time disruptions characteristic of student-athlete life, including unanticipated competitions, travel delays, and fluctuating training loads, by maintaining a sense of agency over one's temporal resources even when external conditions constrain scheduling autonomy [8, 18]. This positions Perceived Control of Time as a high-priority target for the peer-coaching program: peer coaches who have successfully maintained academic performance while managing athletic demands can model the cognitive and behavioral strategies through which perceived time control is sustained under structural pressure.

Equally noteworthy is the reversal in relative association strength between outcome domains: Mechanics of Time Management, which showed the weakest correlation with GPA (r = .29), demonstrated the strongest correlation with coach-rated athletic training adherence (r = .40). The concrete behavioral demands of training adherence, including punctuality, protocol compliance, and structured recovery, are more proximally aligned with scheduling mechanics than with the metacognitive processes underlying academic achievement. This differential validity profile implies that a peer-coaching curriculum should conceptually differentiate between strategies targeting academic engagement (emphasizing Perceived Control of Time and Setting Goals and Priorities: goal-setting, priority-ranking, and sense of temporal agency) and those targeting athletic performance (emphasizing Mechanics of Time Management: planning tools, session preparation, and recovery scheduling). Conflating these domains risks diluting intervention impact in both.

4.4 Implications for Peer-Coaching Mentoring Program Design

The empirical profile generated by this study provides a systematic, population-specific foundation for peer-coaching mentoring program design, consistent with calls in the literature for evidence-based student-athlete academic support [14, 15]. The program should be structured as a tiered intervention with differential intensity calibrated to year level: a high-intensity foundational module targeting first-year student-athletes in the first semester of varsity participation is the most empirically warranted priority. Peer coach selection should privilege academically successful upper-year athletes, particularly third- and fourth-year athletes, consistent with Bandura, A. (1986) [27] social cognitive theory of observational learning and vicarious reinforcement. SCUAA-affiliated institutions should receive more resource-intensive implementation, given their student-athletes' lower baseline profiles and less extensive existing support infrastructure.

4.5 Limitations and Future Directions

Several limitations should be noted. First, the cross-sectional design precludes causal inference. Second, the study is limited to four universities; generalization to institutions and regions not represented should be made cautiously. Third, coach-rated adherence introduces rater-level variability that standardized rating guides can only partially mitigate. Fourth, potential confounders including scholarship type, training load volume, and competition density were not assessed. Future research should prioritize: (a) longitudinal

tracking of time management development across years of athletic participation to adjudicate between maturation and survivorship explanations for year-level differences; (b) experimental evaluation of the peer-coaching program developed from these findings; (c) qualitative inquiry into strategies deployed by high-performing student-athletes; and (d) extension of the assessment framework to UAAP and other national-level associations not included in the current study.

5. Conclusions

This study provides the first systematic, multi-institutional, quantitatively rigorous characterization of time management behavioral profiles among Filipino collegiate student-athletes affiliated with SCUAA, STRASUC, and NCAA-Philippines. The finding of moderate overall time management behavior, with a specific deficit in the enactment of concrete mechanics relative to organizational preference, identifies a precise and actionable target for intervention. Year level and athletic association affiliation are significant moderators of time management profiles, with first-year and SCUAA-affiliated athletes representing the highest-priority target groups. Perceived Control of Time and Setting Goals and Priorities are most strongly associated with academic GPA, while Mechanics of Time Management is most strongly associated with athletic training adherence, providing a differentiated evidence base for dual-track peer-coaching curriculum design. These findings contribute a replicable assessment framework and empirically grounded program design principles to the nascent Philippine student-athlete academic support literature.

Acknowledgement

The authors acknowledge the institutional Athletic Directors and academic affairs offices of the four participating universities for facilitating access to student-athlete rosters and supporting data collection activities.

References

1. Kissinger, D.B., Miller, M.T., College Student-Athletes: Challenges, Opportunities, and Policy Implications, Information Age Publishing, 2020.
2. Stambulova, N., Ryba, T., Henriksen, K., Career development and transitions of athletes: The International Society of Sport Psychology position stand revisited, International Journal of Sport and Exercise Psychology, 2021, 19 (4), 524-550. https://doi.org/10.1080/1612197X.2020.1737836
3. Cosh, S., Tully, P.J., Stressors, coping, and support mechanisms for student athletes combining elite sport and tertiary education, The Sport Psychologist, 2015, 29 (2), 120-133. https://doi.org/10.1123/tsp.2014-0102
4. Aeon, B., Aguinis, H., It's about time: New perspectives and insights on time management, Academy of Management Perspectives, 2017, 31 (4), 309-330. https://doi.org/10.5465/amp.2016.0166
5. Watson, J.C., Kissinger, D.B., Athletic participation and wellness: Implications for counseling college student-athletes, Journal of College Counseling, 2007, 10 (2), 153-162. https://doi.org/10.1002/j.2161-1882.2007.tb00015.x
6. Britton, B.K., Tesser, A., Effects of time-management practices on college grades, Journal of Educational Psychology, 1991, 83 (3), 405-410. https://doi.org/10.1037/0022-0663.83.3.405
7. Claessens, B.J.C., van Eerde, W., Rutte, C.G., Roe, R.A., A review of the time management literature, Personnel Review, 2007, 36 (2), 255-276. https://doi.org/10.1108/00483480710726136

8. Macan, T.H., Shahani, C., Dipboye, R.L., Phillips, A.P., College students' time management: Correlations with academic performance and stress, Journal of Educational Psychology, 1990, 82 (4), 760-768. https://doi.org/10.1037/0022-0663.82.4.760
9. Gayles, J.G., Hu, S., The influence of student engagement and sport participation on college outcomes among Division I student athletes, The Journal of Higher Education, 2009, 80 (3), 315-333. https://doi.org/10.1080/00221546.2009.11779015
10. Wilson, G., Hawkins, B.J., Obiechina, G., Time management as a predictor of academic performance in student-athletes: A scoping review, Journal of Athlete Development and Experience, 2021, 3 (1), 45-62. https://doi.org/10.25035/jade.03.01.04
11. Settles, I.H., Sellers, R.M., Damas, A., One role or two? The function of psychological separation in role conflict, Journal of Applied Psychology, 2002, 87 (3), 574-582. https://doi.org/10.1037/0021-9010.87.3.574
12. Topping, K.J., Trends in peer learning, Educational Psychology, 2005, 25 (6), 631-645. https://doi.org/10.1080/01443410500345172
13. Crisp, G., Cruz, I., Mentoring college students: A critical review of the literature between 1990 and 2007, Research in Higher Education, 2009, 50 (6), 525-545. https://doi.org/10.1007/s11162-009-9130-2
14. Comeaux, E., Harrison, C.K., A conceptual model of academic success for student-athletes, Educational Researcher, 2011, 40 (5), 235-245. https://doi.org/10.3102/0013189X11415260
15. Kimball, A., Mitchell, M., Evidence-based approaches to student-athlete academic support: A systematic review, Journal of Issues in Intercollegiate Athletics, 2021, 14, 289-318.
16. Creswell, J.W., Creswell, J.D., Research Design: Qualitative, Quantitative, and Mixed Methods Approaches, 5th ed., SAGE Publications, 2018.
17. Faul, F., Erdfelder, E., Buchner, A., Lang, A.G., Statistical power analyses using G*Power 3.1: Tests for correlation and regression analyses, Behavior Research Methods, 2009, 41 (4), 1149-1160. https://doi.org/10.3758/BRM.41.4.1149
18. Macan, T.H., Time management: Test of a process model, Journal of Applied Psychology, 1994, 79 (3), 381-391. https://doi.org/10.1037/0021-9010.79.3.381
19. Hinkin, T.R., A brief tutorial on the development of measures for use in survey questionnaires, Organizational Research Methods, 1998, 1 (1), 104-121. https://doi.org/10.1177/109442819800100106
20. Polit, D.F., Beck, C.T., The content validity index: Are you sure you know what's being reported? Critique and recommendations, Research in Nursing & Health, 2006, 29 (5), 489-497. https://doi.org/10.1002/nur.20147
21. Hu, L., Bentler, P.M., Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives, Structural Equation Modeling, 1999, 6 (1), 1-55. https://doi.org/10.1080/10705519909540118
22. Fornell, C., Larcker, D.F., Evaluating structural equation models with unobservable variables and measurement error, Journal of Marketing Research, 1981, 18 (1), 39-50. https://doi.org/10.1177/002224378101800104
23. Cohen, J., Statistical Power Analysis for the Behavioral Sciences, 2nd ed., Lawrence Erlbaum Associates, 1988.

24. Podsakoff, P.M., MacKenzie, S.B., Lee, J.Y., Podsakoff, N.P., Common method biases in behavioral research: A critical review of the literature and recommended remedies, Journal of Applied Psychology, 2003, 88 (5), 879-903. https://doi.org/10.1037/0021-9010.88.5.879
25. Wolters, C.A., Brady, A.C., College students' time management: A self-regulated learning perspective, Educational Psychology Review, 2021, 33 (4), 1319-1351. https://doi.org/10.1007/s10648-020-09519-z
26. Zimmerman, B.J., Investigating self-regulation and motivation: Historical background, methodological developments, and future prospects, American Educational Research Journal, 2008, 45 (1), 166-183. https://doi.org/10.3102/0002831207312909
27. Bandura, A., Social Foundations of Thought and Action: A Social Cognitive Theory, Prentice-Hall, 1986.