THE IMPACT OF STUDENT-ATHLETE'S EMOTIONAL INTELLIGENCE ON BALANCING SCHOOLWORK WITH THEIR SPORTS

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ABSTRACT

This research addresses the challenge of high-school student-athletes in balancing academic commitments with sports involvement. It investigates the impact of emotional intelligence (EI) on student-athletes' ability to manage schoolwork. Through literature review and empirical investigation, the study examines if emotional intelligence directly influences the balance between academic and athletic responsibilities. Using structural equation modeling, the research shows that a student-athlete's emotional intelligence directly affects his/her balancing the schoolwork with sports and his/her time management skills. However, a student-athlete's time management skills do not impact his/her balancing schoolwork with sports. This research contributes to the theory of emotional intelligence as well as physical education in secondary school. The study extended the role of emotional intelligence to balancing student-athlete's schoolwork with sports activities. In the domain of physical education, the study proposes a method of improving student-athletes' ability to balance their schoolwork with sports activities, thereby reducing the drop-out rate of their sports in their high school years.
Keywords: Emotional intelligence; student-athlete; balancing schoolwork; time management; structural equation modeling.

1. INTRODUCTION

Balancing the demands of schoolwork and sports is a formidable challenge many high-school student-athletes face. As an observer of this struggle, the author has recognized the significant difficulties encountered by student-athletes in effectively managing their studies alongside their athletic commitments (Kumar, & Mohammad, 2019). Existing literature underscores the profound impact of emotional intelligence on athletes' motivation and communication skills, suggesting a potential link between emotional intelligence and the ability to balance academic responsibilities with sports engagement (Kim 2023, Laborde et al. 2016, Li et al. 2021, Sukys et al. 2019). In light of these observations and insights, this research investigates the relationship between the emotional intelligence of high school student-athletes and their capacity to successfully navigate the dual demands of schoolwork and sports activities.

The central research question guiding this inquiry is: "How can high-school student-athletes balance schoolwork with sports activities?" A comprehensive review of pertinent literature has been conducted to address this overarching question, exploring factors influencing sports athletes' motivation and the intricate balance between schoolwork and sporting pursuits. Through this review, it has become apparent that emotional intelligence may play a pivotal role in shaping student-athletes' ability to effectively manage their school-related workload alongside their involvement in sports. Thus, the specific question to be

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explored in this research is: "Does the emotional intelligence (EI) of high-school student-athletes directly impact their ability to balance their schoolwork and their sports activities?" The primary objective of this research is to identify the factors that influence high-school student-athletes' capacity to balance their academic responsibilities with their engagement in sports activities. Based on the literature review, three hypotheses have been formulated to investigate the relationship among emotional intelligence, time management skills, and the ability to balance schoolwork with sports activities. By examining these hypotheses, this study aims to shed light on the interplay between emotional intelligence and the successful management of schoolwork and athletic commitments among student-athletes.

The anticipated outcomes of this research hold significant implications for academic and athletic communities. Firstly, positive relationships between emotional intelligence, time management skills, and the ability to balance schoolwork with sports activities could pave the way for developing tailored educational programs to enhance student-athletes' emotional intelligence and time management abilities. Secondly, findings from this study may inform the formulation of policies within school athletic departments, fostering environments conducive to supporting student-athletes' emotional intelligence and time management skills. Lastly, by recognizing student-athletes' individual needs, this research may guide personalized approaches to assist each student-athlete in achieving academic and athletic success.

The remainder of this paper is organized as follows: First, the author briefly reviews the relevant literature and develops a set of hypotheses based on an extensive review of pertinent literature. Subsequently, the research methodology and data analysis procedures are discussed, followed by the hypotheses being tested. Finally, the findings are examined, and managerial implications are drawn to guide future research and practice in this field.

Literature Review

Emotional Intelligence (EI)

Emotional Intelligence (EI) has gained significant attention in various fields, including sports psychology, due to its profound impact on individual performance and success. Emotional Intelligence (EI) refers to the ability to manage your emotions and understand the emotions of people around you (Salvory & Meyer 1990). According to Salvory and Meyer (1990), EI comprises four components: evaluation and expression of one's own emotions, evaluation of others' emotions, regulation of emotions, and utilization of emotions.

EI has been recognized as a critical personal attribute for sports athletes (Sukys et al. 2019, Laborde et al. 2016). In the context of sports, athletes encounter a myriad of emotions, ranging from excitement and confidence to anxiety and frustration. Such emotion impacts not only the performance of sports but also school-related activities for student-athletes. Therefore, the application of EI principles becomes crucial in helping student-athletes navigate these emotional experiences effectively.

Time Management (TM)

Time management involves organizing the available time in accordance with personal objectives and lifestyles while considering individual preferences, interests, and aversions (Eldeleklioglu 2008, Kaya et al. 2012). Efficient time management is determined by reaching specific goals and accomplishing them in the shortest time frame feasible (Eldeleklioglu 2008).

The pivotal aspect to consider revolves around using time to prioritize efficiency and effectiveness (Kaya et al. 2006). Those adept at leveraging their time efficiently are characterized by their ability to diversify their focus across multiple endeavors rather than focusing on one activity during a given timeframe. Such an attribute entails a balanced time distribution among various activities, including professional commitments, personal affairs, and pursuits aligned with individual passions and interests (Trueman and Hartley 2005).

By adopting such an approach to time management, individuals can enhance their productivity and fulfillment across various facets of life. In sports and academics, time management skills can enable student-athletes to improve their performance in both arenas, achieving a harmonious balance between their athletic and academic pursuits.

School Work Balance

There has been growing interest in exploring the balance between sports participation and student academic performance in recent years. While engaging in sports offers numerous physical and mental health benefits, concerns have been raised regarding its potential impact on educational achievement.

Several studies have investigated the effects of sports participation on academic performance, yielding mixed findings. Some research suggests that student-athletes often demonstrate higher levels of discipline, time management skills, and goal-setting abilities, which can positively influence their academic performance (Eccles and Barber 1999). On the other hand, other studies have found that excessive involvement in sports may lead to decreased academic engagement, higher levels of stress, and lower grades among student-athletes (March and Kleitman, 2002).

Kuroda et al. (2023) showed that athletic results are positively associated with academic performance at the school level. Given the cross-sectional nature of the present study, Kuroda et al. (2023) suggest that balancing academic and athletic commitments is feasible.

Hypotheses

People with high EI can identify how they are feeling, what those feelings mean, and how those emotions impact their behavior and, in turn, other people. An extensive literature review on the factors influencing the motivation or behavior of sports athletes was carried out. Through literature review, the research developed three hypotheses to be tested in this proposed research.

Existing literature suggests that emotional intelligence has a positive impact on athletes. Their EI is positively related or associated with their level of self-determined sports motivation (Sukys et al., 2019). Li et al. (2021) show that EI is associated with communication satisfaction. In their study, communication satisfaction is defined as the extent of a person's satisfaction with various aspects of communication with someone else or within an organization. It is not difficult to assume that communication skills and motivation positively influence many aspects of overall performance, especially in community service and leadership. I therefore posit:

H1: Emotional intelligence of high-school student-athletes directly affects their overall performance and experiences during their high-school years.

Emotional intelligence can be interpreted as the ability to recognize, understand, manage, and use one's emotions effectively and navigate social relationships. On the other hand, time management skills involve planning, organizing, and prioritizing tasks effectively to make the most of one's time. In addition, there is a positive relationship between emotional intelligence and communication satisfaction (Li et al., 2021). Therefore, the author assumes that student-athletes with solid emotional intelligence may excel in communication and collaboration with others, which have a positive impact on better planning and controlling time management. Therefore, the author posits:

H2: Emotional intelligence of high-school student-athletes directly affects their overall time management skills.

Time management refers to planning the time available in line with personal goals and lifestyles while keeping individual preferences. The criterion for efficient time management lies in planning and attaining goals in the minimum possible time (Kaya et al., 2012). Existing literature shows the relationship between time-management skills and individual performance in many aspects. Inadequate time planning reduces the scope of academic achievement,

causing insufficient time to be allocated for other personal and social activities. The author assumes that their time management skills may influence balancing schoolwork with sports activities. Therefore, the author posits:

H3: The time management skill of student-athletes has a direct impact on their overall performance and experiences during their high-school years.

2. METHODS AND MATERIALS

2.1 Measures

Emotional intelligence has been commonly operationalized with the Emotional Intelligence Questionnaire (EIQ) (Salovey & Mayer 1990). Following the conventional approach, the research adopts the EIQ to measure a student-athlete's overall emotional intelligence. Specifically, EIQ evaluates four measures of emotional intelligence (EI) – perception of one's emotion (PE), managing one's emotion (ME), managing others' emotion (MO), and using one's emotion (UE). Each measure has two questionnaires, rated on a five-point Likert scale from 1 = "strongly disagree" to 5 = "strongly agree."

Following Kaya's work on time management skill (Kaya et al. 2012), the study operationalizes a student-athlete's time management skill (TM) in his/her daily life. The study measures a student-athlete's schedule planning skill (PT) and schedule control, including academic and non-academic commitment (CT). Each measure has two questionnaires, rated on a five-point Likert scale from 1 = "strongly disagree" to 5 = "strongly agree."

Schoolwork balance (SWB) is operationalized with three measures – the impact on academic curriculum work (AC), leadership activity (LD), and community service (CS). Our approach is different than existing literature on schoolwork balance in that existing literature (Kuroda et al 2023, Owen et al. 2022) only focused on academic work, while this study measures comprehensive schoolwork including non-academic work such as leadership and community service. All three measures are universally accepted schoolwork, commonly used in college applications such as CommonApp. With a five-point scale (5 is the highest), SWB measures how the sports activities make an impact on his/her academic work (AC), leadership activity (LD), and community service (CS).

2.2 Structural Equation

The research develops a structural model that describes three theoretical constructs of interest – EI (emotional intelligence), TM (time management), and SWB (schoolwork balance) – as well as the causal relationships among them. Specifically, the model consists of three latent blocks, as shown in Figure 1. Following the hypotheses, student-athletes' time management skill (TM) is affected by their emotional intelligence (EI). Student-athlete's schoolwork balance (SWB) forms the last latent block which is determined by the student-athlete's emotional intelligence (EI) and his/her time management skill (TM).
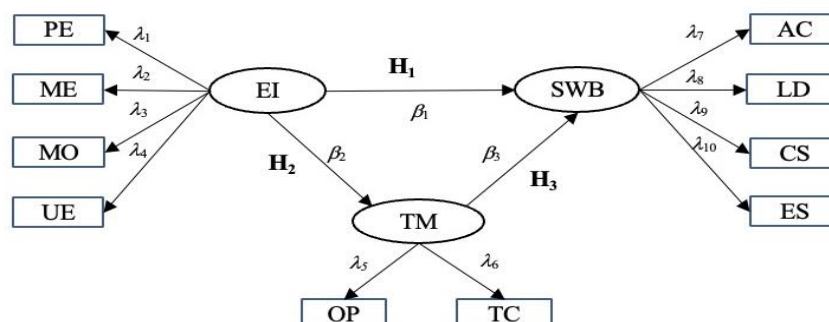

Figure 1. Structural Equation Model

2.3 Data Collection and Sample

For data collection, the study employed the survey method. All questionnaires were encoded using Microsoft Form for easy and quick data collection. The participants for the survey comprise high school student-athletes aged between 14 and 18 years old, both male and female, who dedicate a minimum of 15 hours per week to sports-related activities. These student-athletes represent a diverse population across various sports disciplines, including but not limited to basketball, soccer, track and field, swimming, and tennis. They attend high schools in King County, WA.

From the participant perspective, the survey research presents minimal risk, with potential social and academic benefits, as outlined in the broader impacts section. Completing the questionnaire is considered consent to participate, with participants providing voluntary responses to questionnaires. In the e-survey format, the initial window will feature an information statement detailing the purpose and potential benefits of the study, along with a statement: "By entering the survey, I indicate that I have read the information provided and agree to participate."

The survey questionnaires were disseminated to 120 student-athletes in Washington State via Microsoft Form. Data collection garnered responses from a total of 92 participants. Among these, 54 respondents (58.7%) identified as male, while 38 (41.3%) identified as female. Regarding academic classification, the breakdown of respondents was as follows: 14 freshmen (15.2%), 50 sophomores (54.3%), 21 juniors (22.9%), and seven seniors (7.6%).

2.4 Data Analysis

To estimate the parameters of the structural model, we use a structural equation modeling approach, especially LISREL, as illustrated in Figure 1 (Jöreskog & Sörbom 1993, Jöreskog & Sörbom 1996) . The study derives sample descriptive statistics for all nine (9) measures using SPSS.

3. RESULTS

Table 1 shows sample means, standard deviations, and minimum and maximum values of the measures. Sample means range from 2.587 (for LD) to 4.103 (for PE) on a five-point scale, with standard deviations ranging from 0.6269 (for PE) to 1.242 (for LD). Given the minimum and maximum values (5 is the highest), these standard deviations imply that most observations are well distributed around the sample mean.

Table 1: Descriptive Statistics of Measures

Measure	Number	Mean	St. Dev.	Min	Max
PE	92	4.103	0.6269	2.5	5
ME	92	3.935	0.7817	2	5
MO	92	3.940	0.7444	2	5
UE	92	3.832	0.8493	2	5
PT	92	3.359	0.9787	1	5
CT	92	3.078	0.7802	1	5
AC	92	3.087	1.096	1	5
LD	92	2.587	1.242	1	5
CS	92	2.739	1.138	1	5

Model fit

The study tests the structural equation model on the variance-covariance matrix of the measures using LISREL 8 (Jöreskog, & Sörbom 1996) and assesses model adequacy, i.e., model fit (i.e., how well the model that best represents the data reflects the proposed structural equations).

No single fit index is widely agreed to show all aspects of model adequacy (Hooper et al. 2008). There are two groups of fit indices: (a) absolute (stand-alone), such as model Chi-square (x^2) value, Root Mean Square Error of Approximation (RMSEA), and Goodness-of-Fit Index (GFI), and (b) incremental, such as Normed Fit Index (NFI) and Comparative Fit Index (CFI). While there is no golden rule for assessing model fit, reporting various model fit indices is commonly recommended because they reflect differing facets of model adequacy (Crowley, & Fan 1997).

The fit indices generated by LISREL show a corroborating value for acceptable model fit, given the small sample size, $n = 92$, suggesting an adequate fit between the structural equation model and sample data (Awang 2012): RMSEA = 0.176, Normal Fit Index (NFI) = 0.87, Relative Fit Index (RFI)= 0.80, Comparative Fit Index (CFI) = 0.90, and Standardized Root Mean Square Residual (SRMR) = 0.096. Note that the x^2-value 91.87 is somewhat high with $df = 24$ ($p < 0.05$), which implies a fit between the sample (observed one) and fitted covariance matrices (our proposed theory) (Starnes et al. 2010, Yuan, & Bentler 2004).

As shown in Table 3, the reliability of data was evaluated using Cronbach's alpha values, all exceeding 0.6. The reliability test suggests that the proposed model should achieve significant internal and construct reliabilities (Fornell, & Larcker 1981).

Table 2: Reliability of measurement model

Construct	Indicator	Factor loading	*t*-value	Cronbach's alpha
Emotional Intelligence (EI)	PE	0.51	9.24	0.871
	ME	0.53	7.05	
	MO	0.64	9.96	
	UE	0.71	9.59	
Time Management (TM)	PT	0.85	-	0.817
	CT	0.64	6.08	
School Work Balance (SWB)	AC	1.06	-	0.805
	LD	0.69	5.12	
	CS	0.62	5.01	

Hypothesis tests

The study now tests hypotheses H1 - H3 at the theoretical level using the causal relationships among the three latent constructs, EI, TM, and SWB. Estimates of the structural coefficients are shown in Figure 2. Surprisingly, the estimated coefficient of TM for SWB is statistically insignificant (t <1.96), whereas the estimated coefficient of EI for TM is numerically high (0.61) and statistically significant (*t > 1.96*). The estimated coefficient of EI for SWB is also numerically high (0.55) and statistically significant (*t > 1.96*). These results show that (1) the emotional intelligence (EI) of a student-athlete has a direct effect on his/her ability to balance his/her school-related work with sports activity; (2) the emotional intelligence (EI) of a student-athlete has a direct effect on his/her time management skills.
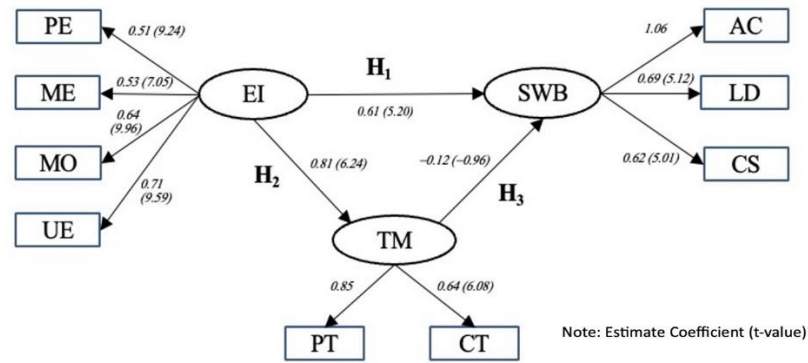
Figure 2. Estimate Coefficients and t-values in Structural Model

4. DISCUSSION

This study applies emotional intelligence theory to student-athletes' schoolwork balance. The study examines the causal relationship between the level of emotional intelligence of student-athletes and the impact of sports on their overall schoolwork as a high school student. Specifically, this study explores how their emotional intelligence affects student-athletes' schoolwork activities or performances.

This study also takes a further step by incorporating time management skill into the relationship between student-athletes' emotional intelligence and schoolwork balance. Using structural equation modeling, the research shows that a student-athlete's emotional intelligence directly affects his/her balancing the schoolwork with sports and his/her time management skill. Instead, a student-athlete's time management skill does not have an impact on his/her balancing the schoolwork with sports. In other words, time management skill does not serve as a mediating factor between a student-athlete's emotional intelligence and his/her balancing the schoolwork with sports.

5. CONCLUSION

This research contributed to the theory of emotional intelligence as well as physical education in secondary school. Emotional intelligence has been regarded as a critical factor in improving motivation and communication skills for sports athletes. The study extended the role of emotional intelligence to balancing student-athletes' schoolwork with sports activities. In the domain of physical education in secondary school, the study proposes a method of improving student-athletes' balancing their schoolwork with sports activities, thereby reducing the drop-out rate of their sports in their high school years.

These findings suggest that enhancing student-athletes' emotional intelligence is critical in school education, given its direct correlation with their capacity to effectively manage academic and non-academic schoolwork alongside sporting pursuits. It is incumbent upon the stakeholders, school educators and parents to recognize the pivotal role emotional intelligence plays in facilitating a balanced approach to schoolwork (academic and non-academic work) and athletic engagements. To this end, concerted efforts should be made to cultivate and develop emotional intelligence skills among student-athletes. Such efforts entail implementing tailored programs to foster self-awareness, empathy, and social skills.

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