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Psychological Strain, Engagement, and Athlete's Subjective Performance among Boarding School Athletes

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Abstract

Numerous variables have influence on the health and athletic performance of athletes, mostly including environmental and physical elements. Nevertheless, it is essential to acknowledge that mental health is a crucial aspect of an athlete's overall well-being. The objective of this study was to investigate the potential correlation between engagement, psychological strain, and subjective performance among athletes enrolled in boarding schools. A cohort of 63 athletes was selected from one of the Malaysian boarding school sports contingents with a total population of 75 athletes. The chosen participant responded to three sections of the survey, namely the Athlete's Subjective Performance Scale (ASPS), the Athlete Psychological Strain Questionnaire (APSQ), and the Athlete Engagement Questionnaire (AEQ). The internal consistency test for the questionnaire yields an alpha coefficient ranging from 0.75 to 0.85. The study's data analysis revealed a strong association (r= -.823, p=0.001) between psychological strain and an athlete's subjective performance. The study's results indicate a substantial association (r=.861, p=0.001) between engagement and an athlete's perceived performance. In summary, the correlation between psychological strain, engagement, and an athlete's perceived performance is intricate and interrelated. This study has a number of practical consequences for coaches and athletes, including the implementation of customised training programs, the use of stress management approaches, and the incorporation of mental conditioning techniques. A recommendation for future investigation entails examining the influence of diverse psychological elements and conducting longitudinal inquiries that monitor the psychological burden and subjective performance of athletes over an extended duration.

Keywords: Psychological Strain, Engagement, Subjective Performance, Boarding School, Athletes

Introduction

Extra-curricular activities refer to non-academic pursuits that are organised by the school but take place outside of regular classroom hours and are not included in the formal curriculum (Bartkus et al., 2012). According to Bartkus et al. (2012), student societies include a wide variety of extracurricular activities, spanning from cultural and social organisations, such as fraternities and sororities, to student newspapers and sports clubs. Nevertheless, it is difficult to measure the broader impact of extra-curricular activities on the academy and society due to their lack of grading or academic credit, as well as the optional and voluntary nature of student involvement (Seow & Pan, 2014). The majority of existing research on extra-curricular activities has approached the topic from a utilitarian standpoint, examining the relationship between these activities and the educational results of participating students.

According to the findings of the 1979 Cabinet Committee Report conducted by Rosli et al. (2022), it was recommended that students be actively encouraged to engage in co-curricular activities. Each student is required to participate in a uniform body, a sport or game, and a club or organisation inside the school. Students enrolled in educational institutions that actively participate in sports programs are afforded the valuable chance to serve as representatives of their respective schools, engaging in competitive events at the pinnacle of athletic achievement, which may include the provision of full boarding facilities. Boarding schools, which provide a comprehensive curriculum, give students year-round lodging, food, and unrestricted access to school facilities.

In Malaysia, students enrolled in boarding schools participate in inter-school sports events exclusive to their educational institutions. Numerous variables exert influence on the health and athletic performance of athletes (Bahr & Holme, 2003), mostly including environmental and physical aspects. Nevertheless, it is essential to acknowledge that mental health is a crucial aspect of the overall well-being of great athletes. The literature has highlighted the significance of psychological aspects in the prediction, prevention, and facilitation of recovery from sports injuries (Williams & Andersen, 1998). Furthermore, these elements have been shown to have an influence not only on athletes' physical well-being but also on their performance results (Schinke et al., 2018).

According to Gouttebarge et al. (2021), there is evidence to suggest that elite athletes encounter mental health issues at a comparable rate to that of the general population. According to a recent meta-analysis conducted by Gouttebarge et al. (2019), a significant proportion of professional athletes, ranging from 15% to 35%, have reported experiencing a range of mental health symptoms, including anxiety, depression, and alcohol abuse. Upon analysing the determinants influencing the psychological well-being of athletes, it becomes evident that athletes encounter a multitude of stress-inducing factors specific to their involvement in sports, surpassing those encountered by the general populace. These factors encompass early career termination, severe injuries, diminished performance, abuse on social media platforms, and apprehensions regarding sponsorship (Reardon et al., 2019). The coronavirus epidemic has had an influence on the mental health of athletes, as shown by studies conducted by Kara et al. (2021) and Lima et al. (2022).

These studies have also highlighted the effects of the outbreak on athletic competition. The significance of athlete involvement has been widely recognised and is now gaining momentum within the positive psychology movement, as shown by recent studies conducted by Valbuena et al. (2016) and Lyons et al. (2019). The investigation of athlete involvement within sports environments may provide a theoretical structure for mitigating athlete fatigue

(De Francisco et al., 2020), maximising athlete capabilities (Lyons et al., 2019), and fostering a more favourable sports encounter (Fawver et al., 2020).

According to Lonsdale et al. (2007), athlete engagement is often conceptualised as a persistent and somewhat steady sports experience, characterised by overall positive emotions and thoughts towards one's activity. Prior studies have shown a connection between athlete engagement and many factors such as athlete flow (Hodge et al., 2009), peak athletic performance (GuoJie et al., 2021), resilience (Pedro & Veloso, 2018), and motivation (Mack et al., 2019; Wekesser et al., 2021). However, the majority of this research has mostly concentrated on elite sports environments, where the emphasis has been on either top athletes or athletes at the national and regional levels. The objective of this study was to investigate the potential correlation between engagement, psychological strain, and subjective performance among athletes enrolled in boarding schools. Two hypotheses have been subjected to empirical investigation.

H_1 There is a significant relationship between psychological strain and the Athlete's Subjective Performance.

H_2 There is a significant relationship between engagement and the Athlete's Subjective Performance.

Methodology

The identification of the respondents' characteristics was conducted by descriptive research, while the comparison and correlation of variables were analysed using inferential methods in this quantitative, non-experimental study. The study included a sample of 63 athletes (Krejcie & Morgan, 1970) selected from a population of 75 athletes belonging to one of the boarding school contingents. This survey has three components:, the Athlete Psychological Strain Questionnaire (APSQ), the Athlete Engagement Questionnaire (AEQ) and the Athlete's Subjective Performance Scale (ASPS).

The APSQ is comprised of ten questions that are used to assess sport-specific psychological strain, as outlined by Rice et al. (2020). The scoring of each item is conducted using a 5-point Likert-type scale, which ranges from 1 (indicating none of the time) to 5 (indicating all of the time). This scale is used to evaluate self-regulation, performance, and external coping. The lowest score is 10, and the highest score is 50. In their study, Rice et al. (2020) provided the cut-off scores for the APSQ, indicating that a score of 15 or higher is considered moderate, a score of 17 or higher is considered high, and a score of 20 or higher is considered extremely high (Rice et al., 2019). Greater psychological strain is indicated by higher scores, and the APSQs have been shown to possess factorial, convergent, and divergent validity, as proven by Rice et al. (2019, 2020).

The first version of the Athlete Engagement Questionnaire (AEQ) had a total of 16 questions, which were equally divided among four distinct factors: confidence, devotion, excitement, and vigor (Lonsdale et al., 2007). The participants in the study were asked to assess each statement on a 5-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). Higher scores on the scale were indicative of a greater degree of athlete involvement. According to Nahum et al. (2016), the Athlete's Subjective Performance Scale (ASPS) recognised three primary dimensions of sports performance: general performance, team contribution, and personal ability. The participants' satisfaction level was assessed using a Likert scale ranging from 1 to 10, with 1 indicating no satisfaction and 10 indicating complete satisfaction. The scores were aggregated to determine the overall performance level.

The acquired data was subjected to analysis and evaluation via the use of parametric tests using the Statistical Package for the Social Sciences (SPSS) version 27 software. The internal consistency test conducted for this research yielded an alpha coefficient ranging from 0.75 to 0.85. According to Sekaran (2003), the assessment of questionnaire item dependability may be determined by its alpha value. A high and acceptable alpha value is often regarded to be 0.60 or above. The assessment of the concept and content validity of both measures was conducted to a certain their validity as measurement tools. The dataset has a normal distribution, as shown by the skewness and kurtosis values being within the range of -0.817 to -0.663. When the data of a population exhibits a normal distribution, it is possible to conduct a parametric test for its analysis. The data was analysed using Pearson's correlation coefficient.

Result and Discussion

Demographic

A total of 63 athletes from boarding schools were included in the research, and their demographic characteristics are shown in Table 1, categorised by gender and age. A total of 31 male participants (49.2%) and 32 female participants (50.8%) were included in the study. Table 1 presents the demographic characteristics of the respondents in relation to their age. The data reveals that those below the age of 18 include 34 individuals, accounting for 54.0% of the sample. Similarly, those below the age of 15 comprise 29 individuals, representing 46.0% of the total respondents.

Table 1

Frequencies and percentage of respondent's demographics

Variable		n	%
Gender	Male	31	49.2
	Female	32	50.8
Age	Under 15	29	46.0
	Under 18	34	54.0

The Relationship Between Psychological Strain, Engagement And Athlete's Subjective Performance

Based on the study's results, Table 2 indicates a strong correlation (r= -.823, p=0.001) between psychological strain and an athlete's subjective performance. The study's results indicate a substantial correlation (r=.861, p=0.001) between engagement and an athlete's perceived performance.

TABLE 2

Correlation of variables

		Athlete's Subjective Performance
Psychological Strain	Pearson correlation Sig (2-tailed)	-0.823**
	N	.001
		63
Engagement	Pearson correlation Sig (2-tailed)	0.861**
	N	.500
		63

**. Correlation is significant at the 0.01 level (2-tailed).

H_1 There is a significant relationship between psychological strain and the Athlete's Subjective Performance.

The alternative hypothesis was not rejected, indicating a significant negative correlation between psychological strain and subjective performance among athletes in boarding schools. As the level of psychological strain intensifies, there is a corresponding reduction in the subjective performance of athletes, and conversely, a rise in psychological strain is associated with a decline in subjective performance. In the presence of a negative strong association, it may be inferred that a persistent and significant pattern exists within the dataset, whereby alterations in one variable are consistently accompanied by inverse alterations in the other variable. Three domains of athlete mental strain used in this study are (1) Self-regulation, (2) Performance, and (3) External Coping.

The interrelationship between athlete self-regulation and mental strain constitutes integral components of an athlete's psychological well-being and performance. Self-regulation encompasses an athlete's capacity to effectively govern and regulate their cognitive processes, affective states, and overt actions, especially when confronted with diverse stresses and demanding circumstances. In contrast, mental strain refers to the psychological stress, pressure, or tension encountered by athletes, stemming from either internal or external reasons. Athlete self-regulation is a talent of considerable value, as it enables athletes to effectively control and alleviate the impact of psychological stress on their performance and overall welfare. The cultivation of self-regulation abilities is a fundamental component of mental resilience training, which plays a pivotal role in an athlete's capacity to flourish among the psychological obstacles inherent in sports engagement.

The interconnection between athlete performance and mental strain is a crucial aspect that profoundly influences an athlete's achievements and general welfare within the realm of sports. The occurrence of subpar performance or the perception of inadequate performance might result in heightened psychological stress. In the context of athletic performance, individuals who express dissatisfaction with their own achievements may encounter psychological distress, characterised by elevated levels of tension, feelings of irritation, and a lack of confidence in their abilities. These emotional responses may significantly add to the overall mental strain experienced by athletes. The presence of high expectations, whether originating from an individual's own self, coaches, teammates, or fans, has the potential to generate significant pressure on athletes. The aforementioned pressure has the potential to result in psychological stress, particularly when athletes perceive a need to continuously reach or beyond these aforementioned expectations. Performance anxiety is a frequently seen sign of psychological stress. Anxiety may be encountered by athletes before to or during competitive events, hence exerting a detrimental impact on their overall performance. Consequently, this might further intensify their psychological burden.

Other coping techniques for athletes refer to the many approaches and procedures used by athletes to effectively manage and relieve mental strain and stresses that arise from other sources or variables outside their own cognitive processes and emotional experiences. The use of these coping mechanisms has a vital role in facilitating the preservation of athletes' psychological well-being and performance. Equally significant, athletes have the capacity to use relaxation methods, including deep breathing, progressive muscle relaxation, and meditation, as a means to effectively cope with external stresses and alleviate the physiological manifestations of mental strain. Indeed, the establishment of open and honest communication channels with coaches, teammates, and support personnel is of utmost

importance. Athletes have the opportunity to engage in dialogue with these persons, whereby they may articulate their worries, frustrations, and causes of mental strain, with the aim of collaboratively devising effective solutions. In addition to their physical prowess, athletes have the ability to use problem-solving strategies in order to more efficiently manage external pressures. The process entails the identification of the underlying causes of stress, generating potential solutions via a collaborative thought process, and then implementing measures to effectively address or alleviate the stress-inducing factors.

The presence of a substantial correlation between an athlete's psychological strain and their perceived performance might have many practical consequences for coaches and players. a) Athletes may get advantages from the use of stress management approaches, including mindfulness, relaxation exercises, and stress-reduction tactics. These methods have the potential to assist athletes in effectively managing psychological tension, hence potentially enhancing their subjective performance ratings. b) The integration of strategies aimed at mitigating performance anxiety into training and competition routines might be considered. This intervention has the potential to assist athletes in effectively managing psychological stress and sustaining self-assurance in high-pressure situations. c) It has been observed that athletes may get advantages from participating in mental skills training programs that specifically target areas such as goal planning, visualization, and self-talk. These programs have the potential to boost psychological resilience and subjective performance.

H_2 There is a significant relationship between engagement and the Athlete's Subjective Performance.

The alternative hypothesis was not rejected, indicating a significant positive correlation between involvement and perceived performance among boarding school athletes. Gaining insight into and effectively using this association may result in enhanced training, performance, and holistic welfare. The term "athlete engagement" in the context of this research pertains to the psychological constructs of confidence, devotion, passion, and vigor.

Engaged athletes often exhibit heightened levels of confidence and motivation, demonstrating a greater propensity to outperform and invest the necessary effort to attain their performance objectives. Individuals may exert more effort during training and tournaments, hence resulting in improved subjective performance evaluations. The concept of athlete engagement is often linked to a high level of passion and devotion to their respective sport. Athletes who demonstrate a high level of commitment are more inclined to continuously allocate their time and effort into training and honing their skills, leading to potential improvements in their subjective performance. Athlete enthusiasm encompasses a heightened state of excitement, fervour, and optimistic vigor that athletes have in relation to their chosen sport, training regimen, and competitive endeavours. Athletic mindset refers to a psychological condition in which athletes exhibit a strong desire, high levels of motivation, and complete immersion in their athletic endeavours. The manifestation of athlete excitement may assume several forms and has a substantial influence on an athlete's holistic experience and performance.

Highly engaged athletes often experience happiness and contentment from the intrinsic motivation derived from the process of training and competing. The presence of intrinsic motivation has the potential to result in an enhanced perception of achievement and personal satisfaction with performance. The concept of athlete vigor refers to a condition characterised by a combination of physical and mental vitality, liveliness, and excitement

shown by athletes. In the realm of athlete well-being, this particular aspect is recognised as a constituent element, often linked to sentiments of liveliness, fervour for training and competition, and a constructive orientation towards athletic pursuits. Athletes that are actively involved in their training and competition duties have a greater degree of attention and attentiveness. The state of heightened concentration has the potential to enhance decision-making, accuracy, and execution, hence influencing subjective performance assessments.

This study has a number of practical consequences for coaches and players. a) The use of this information enables coaches to develop customised training programs that explicitly aim to enhance athlete involvement. Athletes who are actively involved and invested in their training routines may exhibit heightened motivation and dedication, hence potentially resulting in improved performance results. b) The integration of mental conditioning approaches, such as sports psychology and mindfulness training, into training regimens has the potential to augment athlete involvement. The use of these approaches has the potential to enhance athletes' ability to maintain concentration, minimise external disturbances, and effectively cope with stress, hence exerting a beneficial influence on their overall subjective performance. Cultivating an understanding of the correlation between engagement and subjective performance may assist coaches in cultivating a conducive team atmosphere. Engagement levels among athletes may be enhanced by the implementation of team bonding activities, trust-building exercises, and fostering open communication.

One potential avenue for future investigation is for researchers to conduct a more comprehensive analysis of the underlying systems that contribute to athlete engagement and perceived performance. Examining the influence of many psychological characteristics, such as self-motivation and self-confidence, might provide further perspectives. Perform longitudinal investigations to monitor the psychological stress experienced by athletes and their subjective performance outcomes over an extended duration. This phenomenon may provide valuable insights into the reciprocal relationship between variations in psychological strain and subjective performance. Finally, it is important to analyse the impact of individual variations, such as personality characteristics, coping mechanisms, and resilience variables, on the extent to which they modulate the association between psychological strain and subjective performance.

Conclusion

In conclusion, the intricate and interdependent nature of the connection between psychological strain, engagement, and an athlete's subjective performance is evident. The significance of a comprehensive approach to athlete development is underscored by the association seen between psychological strain, engagement, and an athlete's perceived performance. By acknowledging the intricate relationship between these variables and employing tactics to augment athlete involvement and mitigate psychological burden, coaches and sports institutions can facilitate athletes in not only enhancing their performance but also cultivating a more salubrious and optimistic connection with their chosen sport. In conclusion, the adoption of this comprehensive methodology has the potential to enhance the general welfare and achievements of athletes within the highly competitive realm of sports. The ramifications of the study's results have substantial importance for the athletic performance of boarding school athletes. The researchers anticipate that this study will be a valuable resource for school authorities in evaluating levels of involvement and psychological

stress. Furthermore, it is hoped that this research will encourage further attempts to promote physical activity as a means of enhancing athletes' subjective performance.

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Appreciation to one of the boarding school sports contingents who volunteered to be respondents in this study.

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