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RESEARCH ARTICLE

Mood states and Achievement Levels of Class A Male Athletes at the 2024 Sabah Schools Sports Council Championship

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ABSTRACT

Mood states are transient affective conditions that influence how athletes think, feel, and behave under stressful situations. Understanding the role of mood in athletic performance is essential for effective psychological preparation in youth sports. This study examined the mood states of Class A male field event athletes and their association with achievement levels at the 2024 Sabah School Sports Council Athletics Championship. A total of 120 athletes aged 16–18 years were categorised into high (ranks 1–5), moderate (ranks 6–10), and low (ranks 11–20) achievement groups. Mood states were assessed using the Profile of Mood States (POMS), which measures six dimensions: depression, tension, anger, fatigue, confusion, and vigour. One-way ANOVA and post-hoc tests were used to compare groups, with effect sizes calculated using Cohen's d and eta squared (η^2). Results showed no significant differences in mood states across achievement levels ($p > 0.05$), with small effect sizes, indicating that mood explained less than 1% of the variance in performance. These findings suggest that mood states alone may not reliably predict competitive success, as other psychological factors, such as mental toughness and experience, likely play a stronger role. The study highlights the importance of comprehensive psychological skills training in youth athletics, extending beyond the focus on mood regulation alone. Future research with larger, diverse samples is recommended to clarify the role of mood and related constructs in athletic performance.

Contribution/Originality: This study contributes to the existing literature by examining the relationship between mood states and athletic performance among adolescent male athletes in field events.

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1. Introduction

The sports performance of athletes is not just dependent on their technical skills and physical abilities, but also on psychological factors such as mood states. Mood states are transient affective states which influence how athletes think, behave, and feel when they are exposed to stressful situations. Euphoria and energy are examples of positive moods that can enhance motivation and performance, while depression, anxiety, or fatigue are examples of negative moods that can interfere with concentration and reactivity under stress (Berger & Motl, 2000; McNair et al., 1992). Sports performance, therefore, largely relies on mood, particularly in sporting events involving prolonged mental effort, underscoring the necessity for athletes to manage their emotional states effectively for optimal performance (Angius et al., 2022; Sun et al., 2021).

Sport participants have had to deal with being involved in sporting competition, as the Sabah School Sports Council Championship mostly involves professional kinds of pressuring challenges to perform, competition rivalry and pre-performance anxiety. Thus, the impact of mood state is an important factor to control for if athletes are to compete optimally. One benefit of a happier mood: An athlete can be more concentrated, more creative in seeking solutions and better at handling stress. Also, negative mood can decrease concentration and performance in athletes (Vitale et al., 2017). For instance, athletes in a positive mood will be able to behave more creatively and productively during competitions (Nazri & Salamuddin, 2019).

On the contrary, a bad mood may also interfere with attentional focus, leading to poor performance and more mistakes, which can be a backlash of this state (Kontaris et al., 2020; Vancini et al., 2019). Nonetheless, research on mood states and athlete performance in the context of the Sabah Schools Sports Council, especially among male athletes under 18 years of age participating in field events, has thus far gained little attention. Few studies are currently available that address the effect of mood states on athletes' performance, and those mainly investigate athletes' technical and physical characteristics (Raynadi et al., 2016). In this study, these athletes are referred to as "Class A", a designation used by the Sabah Schools Sports Council to classify athletes under 18 years old. This is significant in determining whether the mood states of athletes can influence their performance during tournaments like those organised by the Sabah Schools Sports Council. Distracting and performance-related thoughts, such as anger, fatigue, or tension, create unstable or negative moods that prevent the athlete from focusing.

Positive emotional states are conducive to optimal performance (Ackbarally et al., 2022; Cadieux et al., 2021). Moods like excitement and joy, on the other hand, can help athletes to fight back and outperform. The ability to appreciate the contribution of mood can assist athletes in achieving their performance goals for tournaments like those organised by the Sabah Schools Sports Council. Negative or labile moods (e.g., anger, fatigue, tension) may disturb concentration and hinder athletes from performing successfully. Conversely, positive affective states, such as excitement and happiness, can be beneficial to athletes in achieving success in adverse situations and overall optimal performance (Vitale et al., 2017). Hence, this study aims to compare the variance in individual mood between successful and unsuccessful male athletes who competed in Class A field events at the 2024 Sabah Schools Sports Council Athletics Championship. This research aims to enhance the understanding of how an athlete's mood affects

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performance and provide guidance to coaches and managers on how to more effectively manage an athlete's mood in the lead-up to the tournament.

2. Literature Review

Mood states are believed to be a crucial factor in the performance of sports, influencing athletes' abilities to cope with competitive stressors. This concept of 'mood states' encompasses several dimensions, including anger, confusion, depression, fatigue, tension, and Vigour (McNair et al., 1992). In sports, mood states are important because they significantly influence how athletes react to pressure situations, adjust to challenges, and maintain focus on performance goals. It was established by earlier research that being in a positive mood can elevate performance, while the opposite, such as depression and tension, can reduce an individual's capabilities (Lane & Terry, 2000; Nazri & Salamuddin, 2019).

Regarding the mood in sport, one of the most widely researched instruments is the Profile of Mood States (POMS), which has six basic dimensions: anger, confusion, depression, fatigue, tension, and Vigour (McNair et al., 1992). These dimensions are useful for understanding the various mood states that can affect athletes' performance during sporting competitions. For example, it has provided empirical data that positive mood states, such as Vigour and excitement, play a role in promoting peak performance, while negative mood states, such as depression and tension, are frequently related to poor sports performances (Kontaris et al., 2020; Vancini et al., 2019). While Singh et al. (2023) highlight the performance benefits associated with Vigour in athletes, Basso and Suzuki (2016) emphasise how fatigue undermines decision-making. Mood states may operate differently depending on the psychological demands of the sport.

Studies on elite-level athletes are more extensive than those on the adolescent level, such as Class A male athletes in the Sabah Schools Sports Council tournament (Domínguez-González et al., 2024; Heikura et al., 2023). Although several studies have reported that mood states influence athletic performance, less is known about the deeper influence on adolescent athlete performance, particularly in field events (Wang et al., 2025; Zhao et al., 2024). According to Raynadi et al. (2016), mastering the mind (which includes controlling emotions and managing stress) is vital for mood enhancement and performance maximisation. In the meantime, several other studies have reported that negative mood states, involving fatigue or tension, impair athletes' decision-making in competitions (Basso & Suzuki, 2017; Berger & Motl, 2000; Peris-Delcampo et al., 2024). A study by Vitale et al. (2017) found that mood regulation is crucial in sports, as individuals with a negative or unstable mood are more likely to lose focus and may commit mistakes they would not typically make. Athletes who maintain a positive mood handle challenges more effectively and exhibit a superior performance level (Todd et al., 2023). The current study also supports the notion that the effect of mood is attenuated when athletes can maintain a positive mood during competition.

Moreover, research among athletes in subsamples of football, tennis, and athletes engaged in competitive sport has demonstrated that present mood is strongly associated with performance in athletic activities (Box et al., 2018; Trudel-Fitzgerald et al., 2021). In a football study by Pettersen et al. (2021), the researchers observed that unstable mood negatively impacts player performance, particularly in competitive games. This finding is in agreement with research conducted by Jones et al. (2007), who explained that athletes with mood disorders (like anxiety and tension) tend to become trapped in a

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pessimistic mindset, which can negatively influence their competition performance. Some studies have shown strong links between mood and performance (Trudel-Fitzgerald et al., 2021), while others have reported weaker or inconsistent effects (Jones et al., 2007).

In light of the Sabah Schools Sports Council Athletics Championships, which challenge younger athletes to succeed, this study aims to investigate the differences in the present mood between groups of Class A male athletes, based on their accomplishments in field events (Heikura et al., 2023). We hope that this study can offer some insight into the extent to which athletic performance varies within athletes with high, moderate and low mood states. The results of this study will enhance the understanding of how mood states influence the performance of adolescent athletes, particularly in tournaments such as the Sabah Schools Sports Council, which involve high pressure and intense competition (Lam et al., 2024).

In conclusion, previous studies have demonstrated that mood states have a significant impact on athlete performance. Therefore, this study will make an important contribution to designing more effective psychological interventions to improve the performance of young athletes, especially those participating in the Sabah Schools Sports Council. Understanding the relationship between mood states and athlete achievement, as well as analyzing the relevant components of mood, can provide better guidance for coaches in improving the performance of adolescent athletes. Despite extensive research on elite athletes, little is known about how mood states influence adolescent athletes in field events, particularly within the context of the Sabah School Sports Council (Peng et al., 2025).

3. Research Method

3.1. Research Design

This study employs a quantitative research design to examine the differences in mood state components and their influence on the performance of male Class A athletes in field events at the 2024 Sabah Schools Sports Council Athletics Championship. The primary objective was to explore the relationship between athletes' mood states and their performance levels, categorised into high, medium, and low achievement groups based on final rankings. In line with previous paradigms, this study employed a quantitative approach using the Profile of Mood States (POMS) questionnaire (McNair et al., 1992). This is a widely recognised method in sports psychology, particularly for assessing adolescents (Nazri & Salamuddin, 2019; Trudel-Fitzgerald et al., 2021).

3.2. Research Location

The study was conducted at the 2024 Sabah Schools Sports Council Athletics Championship, held at Sandakan Stadium in Sandakan, Sabah, in September 2024. Sandakan Stadium was selected because it hosted both track and field events, bringing together male and female athletes from various districts. This allowed for efficient data collection from all participants in one location, ensuring alignment with the research goals.

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3.3. Population

The population for this study consists of male athletes, aged 16–18 years, who participated in field events at the 2024 Sabah Schools Sports Council Athletics Championship. These athletes were selected based on their participation in field events and were representative of athletes from various districts in the competition. The population was specifically limited to those competing in the field events to maintain focus on the relevant group for the study.

3.4. Study Sample

A total of 120 male athletes, aged 16 to 18 years, who participated in field events during the 2024 Sabah Schools Sports Council Athletics Championship, were selected for the study. These athletes were classified as Class A, a designation used by the council for athletes under 18 years old. Purposive sampling was employed, with athletes selected based on their competition rankings. Participants were grouped into three achievement levels: high achievement (ranks 1–5), medium achievement (ranks 6–10), and low achievement (ranks 11–20). The sample size of 120 athletes was determined based on Cohen's (1988) sample size guidelines, which recommend at least 30 participants per group to ensure a 95% confidence level and a 5% margin of error.

3.5. Study Instrument

Athletes' moods were measured using the Profile of Mood States (POMS), developed by McNair et al. (1992), a well-validated instrument in sports psychology. POMS's six scales measure depression, confusion, tension, fatigue, anger, and Vigour along a 5-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). The measure showed excellent reliability in the current study (Cronbach's $\alpha = 0.88$). Such findings of reliability have been seen in recent studies of sports psychology on adolescent athletes (Vitale et al., 2017; Zhou et al., 2024).

3.6. Study Procedure

The study was conducted in three sequential phases:

i. Sample Selection – Class A field event athletes who qualified to participate in the study were selected based on final ranking and age qualification.
ii. Data Collection – The POMS questionnaire was given to the athletes prior to competition.
iii. Performance Measure – The athlete's performance was quantified by their final ranking and categorized into high, medium, and low achievement.

3.7. Data Analysis Procedures

POMS questionnaire scores were subjected to a one-way analysis of variance (ANOVA) to establish differences in mood state among three groups of achievement: high, medium and low. Test scores were utilised to establish significant differences among athletes at different levels of achievement on the dimensions of mood states (anger, confusion, depression, fatigue, tension and Vigour). The use of one-way ANOVA with follow-up post hoc testing is consistent with the analytical procedures employed in recent studies on mood and athletic performance (Box et al., 2018; Conde-Ripoll et al., 2024).

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To examine the relationship between mood states and achievement levels among Class A male athletes at the 2024 Sabah Schools Sports Council Athletics Championship, the following analytical steps were undertaken.

3.7.1. Hypotheses

Null hypothesis (H_0): There is no significant difference in mood states among athletes across different achievement levels.

Alternative Hypothesis (H1): At least one achievement group differs significantly in mood states compared to the others.

3.7.2. ANOVA Testing

A one-way Analysis of Variance (ANOVA) was conducted to determine whether mood scores varied significantly among the three achievement groups. This test assessed group-level differences across the six mood components measured by the Profile of Mood States (POMS) instrument.

3.7.3. Post-hoc Analysis

In the event of statistically significant ANOVA results, Tukey's Honest Significant Difference (HSD) test was planned to identify specific group differences.

3.7.4. Significance Level

A p-value of less than 0.05 ($p < 0.05$) was considered statistically significant for all tests. This analytical framework, combined with the validated POMS instrument, provided structured insight into whether athletes' current mood states were associated with their competitive achievement levels. The results, discussed in subsequent sections, revealed no statistically significant differences, suggesting that mood may not be a key differentiator in performance outcomes among adolescent athletes in this championship context.

3.8. Ethical Considerations

Since this study involved human participants, ethical approval was obtained from the Sabah State Education Department. All participants received a clear explanation of the study's purpose, procedures, and potential risks. Informed consent was obtained from each participant prior to their involvement in the study. The consent process ensured that the athletes understood their rights, including the voluntary nature of participation and the option to withdraw at any time without consequence. Written consent forms were distributed to all participants to ensure transparency and compliance with ethical standards.

4. Results

This study aims to analyse the differences in mood components during class A male athletes' participation in field events based on their achievements in the 2024 Sabah School Sports Council Athletics Championship. The six components of mood states were anger, confusion, depression, fatigue, tension, and Vigour. Data collected through the

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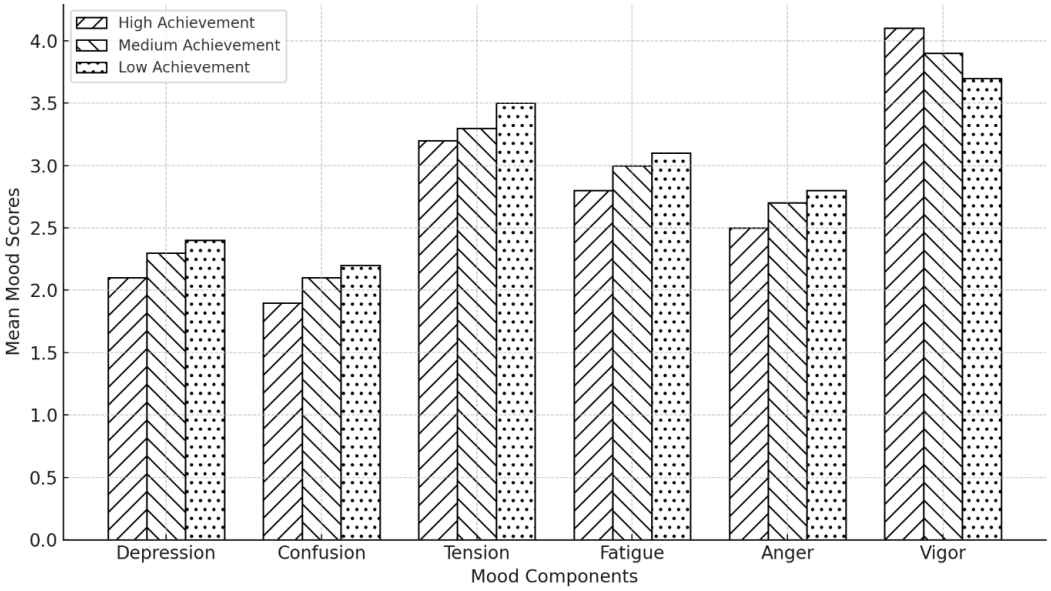
Profile of Mood States (POMS) questionnaire revealed that overall, there were no significant differences in mood states based on athletes' performance in all three categories (high, medium, and low).

Figure 1 illustrates the mean scores of the six mood components for athletes at different achievement levels. As shown in the figure, there are slight variations in mood states, but these differences are not statistically significant. Figure 1 depicts the mood state comparisons across achievement levels. The small differences in scores, particularly for Vigour and fatigue, are not significant enough to impact performance outcomes.

Figure 1: Comparison of Mood States Scores by Achievement Level



The following graph illustrates the mean mood difference based on the achievement level of male field athletes in the 2024 Sabah School Sports Council Athletics Championship. This graph shows how each mood component (depression, confusion, tension, fatigue, anger, and Vigour) varies according to the athlete's level of achievement (high, medium, and low).

From this graph, the differences between achievement groups are insignificant, with only slight variations in mean mood states between athletes with high, medium, and low achievements. For example, the Vigour component shows little difference, with athletes in the high-achievement category showing a higher mean Vigour than those in the low-achievement category. On the other hand, components such as depression and confusion are almost the same for all three groups.

The Table 1 presents the mean and standard deviation for each component of mood states, categorised by the athlete's achievement level (high, medium, and low). In this table, the means and standard deviations of the six components of mood states (depression, confusion, tension, fatigue, anger, and Vigour) are presented across three achievement levels (high, medium, and low). The data shows the mood differences among athletes based on their final rankings in the competition. As seen in Table 1, the mood states across the three achievement groups reveal no significant differences, with athletes in the high achievement group showing slightly higher Vigour scores.

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Table 1: Means and Standard Deviations of Mood states Components Based on Athlete Achievement

Mood Component	High Achievement	Medium Achievement	Low Achievement	Overall Mean	Standard Deviation
Depression	2.1	2.3	2.4	2.3	0.4
Confusion	1.9	2.1	2.2	2.0	0.3
Tension	3.2	3.3	3.5	3.33	0.5
Fatigue	2.8	3.0	3.1	2.97	0.4
Anger	2.5	2.7	2.8	2.67	0.3
Vigour	4.1	3.9	3.7	3.9	0.2

4.1. One-Way ANOVA Test

A one-way ANOVA test was conducted to examine the differences in mood states among achievement groups (high, medium, and low). The results of the ANOVA test showed no significant differences in mood states between the achievement groups in all components.

The results of the one-way ANOVA test in Table 2 show no significant differences in mood states (depression, confusion, tension, fatigue, anger, and Vigour) between athletes with high, medium, and low achievement. All p-values are greater than 0.05, indicating that the null hypothesis is not rejected, meaning that mood states do not differ significantly across the achievement groups.

Table 2: ANOVA Results Comparing Mood States Across Athlete Achievement Levels

Mood Component	F-Statistic	P Value
Depression	0.967	0.380
Confusion	0.967	0.621
Tension	0.120	0.887
Fatigue	0.977	0.380
Anger	0.478	0.621
Vigour	0.478	0.621

4.2. Cohen's d and Eta Squared (η^2)

Cohen's d and Eta Squared (η^2) were used to measure the effect size of the difference between achievement groups. Table 3 shows the effect sizes (Cohen's d and η^2) for each mood state component.

Table 3: Effect Sizes (Cohen's d and η^2) for Mood States by Achievement Level

Mood Component	Cohen's d	Eta Squared (η^2)
Depression	0.15	0.01
Confusion	0.16	0.01
Tension	0.07	0.002
Fatigue	0.10	0.003
Anger	0.12	0.005
Vigour	0.08	0.003

The values indicate small effect sizes, suggesting that mood states have a minimal influence on performance in this study. Table 3 presents the effect sizes for mood states,

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with Cohen's d values indicating small effects across all mood components, which further suggests that mood states have a limited impact on performance.

In terms of Cohen's d, all values are small, indicating that differences in mood states between achievement groups do not significantly impact athlete performance. Similarly, the low Eta Squared (η^2) values indicate that the mood states component contributes little to the variation in athlete performance, with only about 1% to 5% of the variance explained by mood states.

The study's findings showed no significant differences in the components of mood states (depression, confusion, tension, fatigue, anger, and Vigour) between male athletes with high, medium, and low achievements in the 2024 Sabah Schools Sports Council Athletics Championship. This may suggest that mood states, although important, do not have a strong or direct influence on the athletes' achievements in the context of this championship. Other factors, such as competition anxiety, technical training, and athlete experience, may play a more dominant role in determining their performance. Instead, other psychological variables such as competitive anxiety, mental toughness, and prior experience appear to play more dominant roles. For instance, Conde-Ripoll et al. (2024) demonstrated that fluctuations in pre- and post-competition anxiety directly influenced performance outcomes, while self-confidence mediated these effects. Similarly, Yang et al. (2024) found that competitive anxiety predicted athlete burnout, highlighting the broader psychological mechanisms influencing performance beyond mood alone.

These findings are consistent with prior literature suggesting that the relationship between mood and performance is context dependent. While some studies report significant associations, others find weaker or inconsistent effects. For example, Trudel-Fitzgerald et al. (2021) demonstrated that depressive and anxious mood states were associated with reduced concentration and motivation, yet these effects were not uniform across athletes. Similarly, Zhou et al. (2024) demonstrated that the mood profiles of elite swimmers varied substantially between competition phases, influencing their performance inconsistently. These results underscore that mood is not a universal predictor of outcomes but rather interacts with situational and individual characteristics.

Overall, this study found that mood states did not influence the achievement of class A male athletes in field events in the 2024 Sabah Schools Sports Council Athletics Championship. Although mood states are considered an important factor in sports psychology, the difference between athletes with high, medium, and low achievements did not show a significant effect. Therefore, further studies should focus on other psychological and experiential factors, such as anxiety, mental toughness, and competition experience, which may have a stronger impact on athletic performance.

5. Discussion

This study aimed to analyse the differences in mood state components based on the performance of male Class A athletes in field events at the 2024 Sabah Schools Sports Council Athletics Championship. The mood states of athletes, consisting of six subscales: anger, confusion, depression, fatigue, tension and Vigour, represent the core of this work with respect to their impact on performance. According to the results of this study, although mean differences were observed between athletes reporting high, medium and low performance, these differences were not statistically significant (One-Way

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ANOVA). This suggests that the current emotion has a limited influence on an athlete's performance in this contest.

While several previous investigations have reported a significantly positive association between athlete performance and both momentary positive mood state, this hypothesis is not supported by the present findings. For instance, evidence has been provided by Lane and Terry (2000) that positive moods such as Vigour and joyfulness enhance athlete performance, while negative moods like depression and tension impair it. McNair et al. (1992) also indicated that mood state influences performance in sports by impacting thoughts, actions and responses to stress during competition. According to Lane and Terry (2000), the conceptual model suggests that mood states interact with situational and individual factors, which may explain why no significant effects were observed in this study.

The findings of this study indicate that there is no significant difference in the mood states of male athletes in the Sabah Schools Sports Council Athletics Championship among high, medium, and low achievement groups. Therefore, mood states are likely not a primary driver of athlete performance in this tournament. A few older studies, as detailed by Vancini et al. (2019), have an ambiguous effect on mood states and athlete performance, as there are a multitude of psychological, physical, and cognitive factors that influence athlete performance, including long-term training hours, competition experience, and similar athletic analyses. A study by Jones et al. (2007) demonstrated that athletes with high mental toughness can more effectively manage feelings of pressure and negative emotions (such as tension and fatigue) in competition, which can positively influence their performance. This implies that while mood states are an important psychological factor, they do not directly influence athlete performance under all conditions.

Regarding effect size (as shown for Cohen's d and Eta Squared [η^2]), the difference in the mood states between high, medium and low performers was small to moderate, which is not invasive in their performance. Given that the magnitudes of Cohen's d ranged from 0.1 to 0.2 and when partial eta squared (η^2) was considered, we interpreted the small effect as evidence that a recent mood state is not solely responsible for explaining performance in athletes. Cohen (1988) suggested that small values of Cohen's d indicate that group differences do not have a significant impact on the study's findings. Hence, factors such as competition, mental toughness, and competitive anxiety may be more influential on an athlete's performance.

Another area of athlete performance that has been investigated in this study is other psychological factors. Emotional control, goal intention, and coping with sports adversity have been considered more important than mood states in the performance of athletes. In one study, Clough et al. (2002) found that athletes with high mental toughness were able to bounce back from adversity and difficulty and continued to concentrate under negative conditions. This is also supported by a study conducted by Jones et al. (2007), which states that the reason sports individuals with high mental toughness are better able to handle and adapt to adversity is that they are more capable of adjusting to it. Therefore, based on this research, sports managers and coaches should strive to develop athletes' mental toughness in sports training. This could be a necessary quality to naturally develop in sporting activities in relation to athlete performance, rather than simply managing mood.

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This research contributes to the literature on mood states in adolescent sport performance; however, several limitations need to be considered. First, the relatively small and gender-specific sample (male Class A field athletes only) restricts generalizability. Future research should include larger and more diverse samples across multiple sports to capture a broader range of psychological influences. Second, this study only measured mood states using the POMS at one point in time, whereas mood is dynamic and fluctuates across the pre-, during-, and post-competition phases. Longitudinal designs would provide richer insight into how mood interacts with performance over time. For instance, Zhou et al. (2024) and Conde-Ripoll et al. (2024) showed that tracking athletes' moods before and after competition revealed more nuanced effects. Third, integrating additional psychological constructs such as coping strategies, flow state, and perceived stress could provide a more holistic view. Domínguez-González et al. (2024) reported that flow state significantly mediated the relationship between competitive anxiety and performance, a variable not addressed in this study. This research extends the understanding of mood states in sport, though several limitations must be considered. It is the small sample size (field events are for males only). Further, studies with larger samples from a range of sports might elucidate the role of mood states in athlete performance.

Additionally, other variables, such as competition anxiety and broader physical preparation, should be included in further studies to observe how the combination of all these factors influences the athlete's performance. For instance, a report by Box et al. (2018) also suggested that experience and the capacity to control anxiety during competition are significantly associated with performance and should be further explored in subsequent research.

In summary, this study shows that while mood states are relevant in sports psychology, they did not significantly influence the performance of Class A male athletes in field events at the 2024 Sabah School Sports Council Athletics Championship. While mood states contribute to performance in athletes, other aspects such as mental toughness, anxiety and experience of coping with stress, appear to have a stronger influence on the athlete's level. More studies are required to investigate the pathways between psychological factors and athletes' performance in sports competitions.

6. Conclusion and Recommendations

The study aimed to examine the differences in mood states among male athletes competing in class A field events at the 2024 Sabah School Sports Council Athletic Championship. According to the study's results, despite some differences between athletes at three levels of success, a one-way ANOVA test indicated that there was no significant difference between groups. This suggests that the mood states, while showing significant associations with athlete performance in other research, are not a main or immediate determinant of an athlete's performance at this tournament.

Performance in this competition was likely influenced by aspects beyond mood, such as mental toughness, competitive anxiety management, and accumulated experience. Jones et al. (2007) and Clough et al. (2002) emphasised that mental toughness is a key psychological resource enabling athletes to manage stress and adversity while maintaining performance levels. Recent findings reinforce this view. Yang et al. (2024) reported that athletes with higher resilience and need satisfaction were less vulnerable to the negative effects of anxiety and burnout, while Zhou et al. (2024) highlighted that

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effective pre-competition self-confidence strategies mitigated mood fluctuations in elite swimmers. Therefore, however mood states are included in the explanation of athlete performance, it cannot be viewed as the most important factor for predicting success or failure in this tournament. This is further supported by the fact that adjusted differences in mood were very low, and in each case, Cohen's d and Eta Squared (η^2) values indicated small effects.

The mood state is another salient factor, although it was included in this analysis; however, a negative mood could act as a moderating variable between attention and eating. Previous studies have shown that positive mood, such as high Vigour, can enhance performance, while negative mood, such as tension and depression, can interfere with athlete performance (Lane & Terry, 2000). However, this study did not find a strong relationship between mood states and athlete performance in this tournament, which may indicate that in the context of a larger and more competitive tournament, such as the Sabah Schools Sports Council, other factors, such as technical preparation, anxiety and experience, play a more dominant role.

Based on the findings of this study, several recommendations can be made to improve athlete performance and understand the role of mood during sports competitions. First, mood management and mental toughness need more emphasis in athlete training. This study demonstrates that high mental toughness enables athletes to overcome stress and challenges, thereby enhancing their performance in competitions. Therefore, coaches and sports managers need to focus more on developing athletes' mental toughness through stress and anxiety management techniques and training to increase confidence and motivation. According to Haq and Kumaat (2024), effective anxiety and tension management strategies can play a transformative role in an athlete's ability to perform persistently at high levels.

Additionally, improved anxiety management needs to be implemented among athletes, particularly before and during competitions. A study by Trudel-Fitzgerald et al. (2021) demonstrates that effective anxiety management can aid athletes in maintaining their focus and performance during competitions. Techniques such as meditation, visualisation, and breathing exercises can be useful tools to reduce anxiety levels, as well as help athletes control their mood during high-stress situations in competitions. Mental preparation and Emotional regulating training can be developed to prepare athletes for competitions.

Moreover, future research should include larger and more diverse samples across different sports and age categories to establish whether these findings generalize beyond adolescent male athletes in field events. Longitudinal designs that capture mood across multiple competition phases also offer valuable insights. Additionally, examining the joint influence of mood states, competitive anxiety, flow state, and resilience could provide a more holistic perspective. For instance, Domínguez-González et al. (2024) showed that flow state acted as a mediator between competitive anxiety and successful performance. Exploring these interactive pathways may help coaches and sport psychologists design more effective, evidence-based interventions.

Future research may also explore the joint influence of psychological factors, such as mood states, anxiety and mental toughness, on athlete performance. Furthermore, a more global vision of an athlete's performance can be adopted by equilibrating the physical and psychological factors to a greater extent. In sports as well, physical

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conditioning, nutrition and rest are all significant in helping athletes perform at their best. Hence, it is crucial to adopt a holistic strategy that integrates the physical, technical and psychological aspects to enhance athletes' competitive performance.

In summary, this study offers valuable insights into the relationship between momentary mood and athletic ability. Although the present motivation did not have a major influence on athletes' performance at the 2024 Sabah Schools Sports Council Athletics Championships, other psychological factors (such as mental toughness and anxiety) play even more important roles in affecting athlete performance. Further studies in this field will enable the development of more effective training methods, influencing coaches and sports managers in the process to improve athletes' performance levels during competitions.

Ethics Approval and Consent to Participate

This study was conducted in accordance with ethical standards for research involving human participants. Ethical approval was obtained from the Universiti Malaysia Sabah Research Ethics Committee. All participants were informed about the purpose of the study and their rights, and written informed consent was obtained prior to their participation. Participation was voluntary, and confidentiality of all data collected was maintained throughout the research process.

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Conflict of Interest

The authors declare that there are no conflicts of interest regarding the publication of this paper.

References

Ackbarally, Y., Wilson, E., & Patel, R. (2022). Mind over matter: Insights from elite athletes overcoming adversity to achieving gold for improving junior hospital doctor training. *Postgraduate Medical Journal, 99*(1172), 511–513. https://doi.org/10.1136/pmj-2022-142201

Angius, L., Merlini, M., Hopker, J., Bianchi, M., Fois, F., Piras, F., Cugia, P., Russell, J., & Marcora, S. M. (2022). Physical and mental fatigue reduce psychomotor vigilance in professional football players. *International Journal of Sports*

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Physiology and Performance, *17*(9), 1391–1398. https://doi.org/10.1123/ijspp.2021-0387

Basso, J. C., & Suzuki, W. A. (2016). The effects of acute exercise on mood, cognition, neurophysiology, and neurochemical pathways: A review. *Brain Plasticity*, *2*(2), 127–152. https://doi.org/10.3233/bpl-160040

Berger, B. G., & Motl, R. W. (2000). Exercise and mood: A selective review and synthesis of research employing the profile of mood states. *Journal of Applied Sport Psychology, 12*(1), 69–92. https://doi.org/10.1080/10413200008404214

Box, A. G., Feito, Y., Petruzzello, S. J., & Mangine, G. T. (2018). Mood state changes accompanying the Crossfit Open™ competition in healthy adults. *Sports*, *6*, 67. https://doi.org/10.3390/sports6030067

Cadieux, E., Gemme, C., & Dupuis, G. (2021). Effects of yoga interventions on psychological health and performance of competitive athletes: A systematic review. *Journal of Science in Sport and Exercise, 3*(2), 158–166. https://doi.org/10.1007/s42978-020-00104-y

Clough, P. J., Earle, K., & Sewell, D. (2002). Mental toughness: The concept and its measurement. In I. Cockerill (Ed.), *Solutions in sport psychology* (pp. 32–43). Thomson.

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences (2nd ed.)*. Lawrence Erlbaum Associates.

Conde-Ripoll, R., Escudero-Tena, A., & Bustamante-Sánchez, Á. (2024). Pre and post-competitive anxiety and self-confidence and their relationship with technical-tactical performance in high-level men's padel players. *Frontiers in Sports and Active Living, 6*, 1393980. https://doi.org/10.3389/fspor.2024.1393980

Domínguez-González, J. A., Reigal, R. E., Morales-Sánchez, V., & Hernández-Mendo, A. (2024). Analysis of the sports psychological profile, competitive anxiety, self-confidence and flow state in young football players. *Sports, 12*(1), 20. https://doi.org/10.3390/sports12010020

Haq, I. N., & Kumaat, N. A. (2024). Mood states (POMS) condition profile analysis of senior women's cricket athletes in east java before the north aceh sumatra pon 2024. *International Journal of Current Science Research and Review, 07*(01), 574–580. https://doi.org/10.47191/ijcsrr/v7-i1-54

Heikura, E. E., Aunola, K., Tolvanen, A., Ryba, T. V., & Selänne, H. (2023). Student-athletes' mood state profiles: The role of sports, sex, and performance level in sports and in school. *Journal of Applied Sport Psychology, 35*(5), 836–853. https://doi.org/10.1080/10413200.2022.2158250

Jones, G., Hanton, S., & Connaughton, D. (2007). A framework of mental toughness in the world's best performers. *The Sport Psychologist, 21*(2), 243–264. https://doi.org/10.1123/tsp.21.2.243

Kontaris, I., East, B. S., & Wilson, D. A. (2020). Behavioral and neurobiological convergence of odor, mood and emotion: A review. *Frontiers in Behavioral Neuroscience, 14*, 35. https://doi.org/10.3389/fnbeh.2020.00035

Lam, H. K. N., Sproule, J., Turner, A. P., & Phillips, S. M. (2024). Changes in perceived mental fatigue, physical fatigue and mood state during a 4-day national junior orienteering competition preparation camp. *European Journal of Sport Science, 24*(2), 226–238. https://doi.org/10.1002/ejsc.12071

Lane, A. M., & Terry, P. C. (2000). The nature of mood: Development of a conceptual model with a focus on depression. *Journal of Applied Sport Psychology, 12*(1), 16–33. https://doi.org/10.1080/10413200008404211

McNair, D. M., Lorr, M., & Droppleman, L. F. (1992). *Revised manual for the Profile of Mood States.* Educational and Industrial Testing Services.

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Nazri, N., & Salamuddin, N. (2019). Ketahanan mental dan kecerdasan emosi dalam kalangan atlet berpasukan dan individu. *Jurnal Sains Sukan & Pendidikan Jasmani, 8*(2), 8–18. https://doi.org/10.37134/jsspj.vol8.2.2.2019

Peng, J., Jing, L., Wang, P., & Wang, H. (2025). Mindfulness and self-rated performance among novice athletes in China: A sequential mediating role of flow and cognitive anxiety. *Frontiers in Psychology, 16*, 1436321. https://doi.org/10.3389/fpsyg.2025.1436321

Peris-Delcampo, D., Núñez, A., Ortiz-Marholz, P., Olmedilla, A., Cantón, E., Ponseti, J., & Garcia-Mas, A. (2024). The bright side of sports: A systematic review on well-being, positive emotions and performance. *BMC Psychology, 12*(1), 284. https://doi.org/10.1186/s40359-024-01769-8

Pettersen, S. D., Adolfsen, F., & Martinussen, M. (2021). Psychological factors and performance in women's football: A systematic review. *Scandinavian Journal of Medicine & Science in Sports, 32*(S1), 161–175. https://doi.org/10.1111/sms.14043

Raynadi, F. B., Rachmah, D. N., & Akbar, S. N. (2016). Hubungan ketangguhan mental dengan kecemasan bertanding pada atlet pencak silat di Banjarbaru. *Jurnal Ecopsy, 3*(3). https://doi.org/10.20527/ecopsy.v3i3.2665

Singh, A., Arora, M. K., & Boruah, B. (2023). *The role of the six factors model of athletic mental energy in mediating athletes' well-being in competitive sports*. Research Square. https://doi.org/10.21203/rs.3.rs-2943950/v1

Sun, H., Soh, K. G., Roslan, S., Wazir, M. R. W. N., & Soh, K. L. (2021). Does mental fatigue affect skilled performance in athletes? A systematic review. *PLoS ONE*, *16*(10), e0258307. https://doi.org/10.1371/journal.pone.0258307

Todd, K. R., Olsen, K., Hamamoto, G., Hirschfield, T. J., Kramer, J. L. K., & Ginis, K. a. M. (2023). A comparison of neuropathic pain experiences among paralympic versus recreational athletes with spinal cord injury. *Sports Medicine - Open, 9*(1), 117. https://doi.org/10.1186/s40798-023-00645-w

Trudel-Fitzgerald, C., Reduron, L. R., Kawachi, I., & Kubzansky, L. D. (2021). Specificity in associations of anger frequency and expression with different causes of mortality over 20 years. *Psychosomatic Medicine*, *83*(5), 402–409. https://doi.org/10.1097/psy.0000000000000948

Vancini, R. L., Gomes, A. A., De Paula-Oliveira, H., De Lira, C., Rufo-Tavares, W., Andrade, M. S., Sarro, K. J., Sampaio, M. M., Viana, R. B., Nikolaidis, P. T., Rosemann, T., & Knechtle, B. (2019). Quality of life, depression, anxiety symptoms and mood state of wheelchair athletes and non-athletes: A preliminary study. *Frontiers in Psychology*, *10*, 1848. https://doi.org/10.3389/fpsyg.2019.01848

Vitale, J. A., La Torre, A., Baldassarre, R., Piacentini, M. F., & Bonato, M. (2017). Ratings of perceived exertion and self-reported mood state in response to high intensity interval training. A crossover study on the effect of chronotype. *Frontiers in Psychology, 8*, 1232. https://doi.org/10.3389/fpsyg.2017.01232

Wang, W., Schweickle, M. J., Arnold, E. R., & Vella, S. A. (2025). Psychological interventions to improve elite athlete mental wellbeing: A systematic review and meta-analysis. *Sports Medicine, 55*(4), 877–897. https://doi.org/10.1007/s40279-024-02173-3

Yang, L., Zhang, Z., Zhang, J., & Veloo, A. (2024). The relationship between competitive anxiety and athlete burnout in college athlete: The mediating roles of competence and autonomy. *BMC Psychology*, *12*(1), 396. https://doi.org/10.1186/s40359-024-01888-2

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Zhao, C., Wang, K., Li, D., Li, Y., Wang, Z., Liu, Y., & Zhang, T. (2024). Relationship between state anxiety, heart rate variability, and shooting performance in adolescent shooters. *BMC Psychology*, *12*(1), 736. https://doi.org/10.1186/s40359-024-02062-4

Zhou, Y., Jin, Z., & Wen, Y. (2024). The influence of competitive anxiety of Chinese elite swimmers. *Frontiers in Psychology*, *15*, 1392137. https://doi.org/10.3389/fpsyg.2024.1392137

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