Beyond The Court: Emotional Intelligence and Competitive State Anxiety Role in Netball Players' Performance Satisfaction

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Abstract
The goal of this research is to investigate how emotional intelligence and anxiety affect state netball players' performance satisfaction. A convenient sampling of Pahang netballers was chosen to participate in this survey. This study used a quantitative research approach. The Competitive State Anxiety Inventory-2 (CSAI-2), the Sport Satisfaction Performance Scale (SSPS), and the Schutte Self-Report Emotional Intelligence Test (SSEIT) were all filled out by the respondents on pencil and paper. The Statistical Package for Social Sciences (SPSS) software is utilized to conduct the T-test, Pearson correlation, and linear regression analyses. According to the findings, there is no discernible variation in emotional intelligence between age groups or levels of participation. However, anxiety varies depending on the age group and degree of involvement. The results also demonstrate a robust and favorable relationship between anxiety and emotional intelligence. This research adds valuable insights to the expanding field of sports psychology, underscoring the crucial influence of Emotional Intelligence and Competitive State Anxiety on performance satisfaction within the context of netball. The results indicate that for improved performance satisfaction, it is essential for sports psychologists, coaches, and the athletes themselves to adopt approaches that nurture emotional intelligence while concurrently tackling the hurdles associated with competitive anxiety.

Keywords: Emotional Intelligence, Anxiety, Performance Satisfaction

Introduction
One of the high-performance sports that is receiving increasing attention in Malaysia is netball. To increase and enhance performance in netball sports, mental aspects of the activity, such as mental intelligence and anxiety, must be considered in addition to merely physical ones. In situations where the athletes have been exposed to optimal physiological and technical qualities, psychological aspects are among those that are recognized as the main factors that contribute to success while getting ready and the implementation phase of the competition (Heever et al., 2007). This study of the influence of mental aspects on the performance of an athlete has been studied in various aspects (Meyer & Zizzi, 2007). From the
aspect of mental intelligence, there are research results that show a positive correlation between mental intelligence and sports performance. (Campo et al., 2012; Galarraga et al., 2017). Studies on mental intelligence have looked at it as an ability, a trait, and in combination with other theories (Rodríguez-Romo et al., 2021). Emotions like fear can reduce athletes' ability to make the best decisions (Acebes-Sánchez et al., 2021). Lane et al (2010) study showed that mindfulness is positively associated with emotions that can improve performance before competition and with lower levels of pre-competition anxiety. However, studies are showing emotional performance that does not have a consistent relationship in terms of anger and tension. Certain research shows a favorable correlation between anger and tension and performance, whereas other studies find a negative correlation (Beedie et al., 2000; Lane & Terry, 2000). It can be said that athletes with higher mental intelligence can manage their emotions better and have better results in emotionally challenging situations (Kumari & Priya, 2016). This makes mindfulness highly relevant when dealing with complex phenomena such as anxiety which is common in sports and intrinsically also linked to sports performance (Aravin et al., 2022, Batinic et al., 2014). Sports competition is closely connected to the emotional comprehension of stress and anxiety (Singh, 2017). Studies by several researchers show that performance will decrease when the level of anxiety during the competition (both mental and physical) rises above the ideal threshold (Aufenanger, 2005; Mellalieu et al., 2004; Parnabas, 2015).

Based on previous research conducted, there is still a lack of knowledge about the relationship between mental intelligence and the domination of anxiety on the satisfaction of sports achievement in the field of netball at the level of athlete development. With the income of studies in other sports that high emotional intelligence and low levels of anxiety will generally improve sports performance, more specific research on the field of netball sports needs to be done to understand the relationship of psychological factors on the performance of athletes from the level of further development. In addition, research also needs to be conducted to find out the presence of variations in mental intelligence and degree of anxiety in terms of different age groups and involvement. Szabo and Urban, 2014, have discovered that, when it comes to assertiveness, understanding their own emotions, assessing others, and emotional regulation, athletes possess a greater level of mental intelligence than non-athletes. Rodríguez-Romo et al (2021) in the study have found that experience in higher sports and involvement of athletes at a higher level has a higher intelligence of the mind. However, the study of Laborde et al (2014) showed that the amount of time involved in sports does not affect the level of intelligence of an athlete's mind.

Through this study, the link bounded by mental intelligence, anxiety, and performance satisfaction of netball athletes are expected to be better understood. The outcomes of this study will provide a proper contribution to the science of sports psychology by expanding our understanding of the mental element that dominates sports performance. The findings of the study can also help sports managers, coaches, and individuals involved in the development of athletes to take appropriate measures to improve sports performance holistically.

**Hypothesis**

**Ho1** There is no significant difference in emotional intelligence based on the age category of players.

**Ho2** There is no significant difference in competitive state anxiety based on the age category of players.
Ho3 There is no significant difference in emotional intelligence based on the level of participation.
Ho4 There is no significant difference in competitive state anxiety based on the level of participation
Ho5 The emotional intelligence and player performance satisfaction of state netball players are not significantly related.
Ho6 The competitive state anxiety and player performance satisfaction of state netball players are not significantly related.
Ho7 The state netball players' emotional intelligence does not significantly affect their performance satisfaction.
Ho8 The state netball players' competitive state anxiety does not significantly affect their performance satisfaction.

Methodology
The purposive sampling method is used in this research and the subject of this research consists of 360 athletes who represent their district in one of the State School Netball Tournaments in Malaysia. The instrument used in this study is a questionnaire and was conducted to obtain data on students' emotional intelligence, anxiety, and performance satisfaction in the game. A set of questionnaires containing 4 parts, namely Part A of respondents' demography, Part B of anxiety, Part C of emotional intelligence, and Part D of performance satisfaction were distributed to the study sample. The Competitive State Anxiety Inventory—2 (CSAI-2; Martens et al., 1983). The internal consistency of this instrument was found to be high, with alpha values falling between 0.70 and 0.90. To evaluate emotional intelligence, Singh (2017) created and standardized the Emotional Intelligence Scale (EIS), a self-report tool based on Goleman's (1998) paradigm. The scale’s Cronbach alpha reliability is adequate (=0.83) (Singh, 2017). Athlete's Subjective Performance Scale (ASPS) by Nahum et al (2016) is made up of six questions about how athletes rate their success in team sports. The scale was added to a one-item scale made by Pensgaard and Duda (2003), which Nicholls et al (2012) also used with a big group of athletes. This research got approval from the Education Policy Planning and Research Division, the Ministry of Education, and also from the State Education Department.

Result and Discussion
Demographic
Table 1 shows the result of the respondent demographic profile where there are a total of 144 youth netball players ages below 18 who had participated in this study. Among them, there are 72 samples (50%) aged below 15 years old and another 72 samples (50%) aged 16-18 years old. In addition, the table lists the number of players who have competed at the state level: 67 for the under-15 category and 72 for the 18-year-old division. Out of all the players, only five have competed at the national level.
Reliability

Table 2 presents the results of the calculation of the Cronbach Alpha internal consistency coefficient for the constructs of Emotional Intelligence, anxiety, and performance satisfaction. The obtained values were $\alpha = 0.910$ for Emotional Intelligence, indicating strong internal consistency, implying that the items in this subscale reliably measure emotional intelligence. The data is slightly positively skewed (0.238), indicating a distribution where more individuals have scores below the mean. The kurtosis is moderately normal (-0.146), suggesting a relatively normal distribution. While the Cronbach Alpha value for cognitive state anxiety $\alpha = 0.657$ indicates moderate internal consistency. The data is slightly positively skewed (0.088), and the kurtosis is negative (-0.492), suggesting a moderately normal distribution. Cronbach's Alpha $\alpha = 0.739$ suggests good internal consistency for somatic state anxiety. The data is negatively skewed (-0.173), and the kurtosis is slightly negative (-0.029), suggesting a distribution slightly deviating from normal. Meanwhile, Cronbach's Alpha $\alpha = 0.823$ expresses a high degree of internal consistency, suggesting good reliability of the items for self-confidence. The data is slightly positively skewed (0.499), and the kurtosis is negative (-0.672), indicating a distribution with a longer tail on the positive side. The very high Cronbach's Alpha $\alpha = 0.927$ indicates strong internal consistency, implying high reliability of the items in Athlete's Subjective Performance Scale. The data is negatively skewed (-0.532), and the kurtosis is slightly negative (-0.056), suggesting a distribution deviating from normal but not excessively.

Table 2
Reliability and normality of the variable

<table>
<thead>
<tr>
<th>Variable</th>
<th>$\alpha$</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional Intelligence</td>
<td>0.910</td>
<td>0.238</td>
<td>-0.146</td>
</tr>
<tr>
<td>Competitive State Anxiety</td>
<td>0.657</td>
<td>0.088</td>
<td>-0.492</td>
</tr>
<tr>
<td>Athlete's Subjective Performance</td>
<td>0.927</td>
<td>-0.532</td>
<td>-0.056</td>
</tr>
</tbody>
</table>

Difference between emotional intelligence and competitive state anxiety on age

This study's findings (Table 3) revealed that the t-value for comparing players' emotional intelligence in the Under-15 and Under-18 categories is $t=1.202$, degrees of freedom (df) = 142, and $p = .23$. The significance threshold is larger than .05 ($p > .05$). Thus, the null hypothesis $H_0$ failed to be rejected. Consequently, there is not a noticeable difference in the influence of emotional intelligence between players in both categories. The uniformity in emotional intelligence levels between the two age groups suggests that the foundational aspects of emotional intelligence such as self-awareness, self-regulation, motivation, empathy, and social skills, are established by the time athletes reach the Under-15 category and remain stable as they progress to Under-18. This consistency implies that the emotional coping
mechanisms and interpersonal skills of these athletes are resilient to the changes and challenges they face in this developmental window.

Table 3
*Compare the mean of variables in the age category*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Category</th>
<th>N</th>
<th>( \bar{x} )</th>
<th>( \sigma )</th>
<th>( t )</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Competitive State Anxiety</td>
<td>U15</td>
<td>72</td>
<td>26.15</td>
<td>5.47</td>
<td>4.53</td>
<td>142</td>
<td>0.001</td>
</tr>
<tr>
<td>Anxiety</td>
<td>U18</td>
<td>72</td>
<td>22.62</td>
<td>3.68</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emotional Intelligence</td>
<td>U15</td>
<td>72</td>
<td>127.38</td>
<td>19.28</td>
<td>1.20</td>
<td>142</td>
<td>0.231</td>
</tr>
<tr>
<td></td>
<td>U18</td>
<td>72</td>
<td>124.37</td>
<td>8.97</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p<0.05

The findings contradict those of Acebes-Sánchez et al. (2019), who found a substantial correlation between age and emotional intelligence (EI). According to Acosta and Clavero (2020), there is a gradual rise in emotional intelligence levels as individuals age. Studies indicate that there can be a lifelong developmental pathway for emotional intelligence. According to early research by Cabello et al (2016), age and total emotional intelligence scores are positively correlated. Emotional intelligence may increase with age as people experience more of life, are exposed to a wider range of social settings, and have more opportunities to control their emotions. Older people may have had more time to hone their emotional intelligence while younger people are still learning these skills. It may be easier for young athletes to develop these skills early on because of the increased focus on emotional intelligence in sports training.

This study's findings also revealed that the t-value for comparing players' competitive state anxiety in the Under-15 and Under-18 categories was \( t=4.53 \), with a significance level of \( p =.0001 \). The overall result shows that the significance threshold is less than .05 (\( p < .05 \)). Thus, the null hypothesis 2 (H\(_0\)2) is rejected. Therefore, there is a significant difference in competitive state anxiety for both categories of players. Under-18 categories have higher competitive state anxiety than the Under-15 indicating that the pressures of competition affect the two age categories differently. This could be due to a variety of factors, including the increasing expectations, performance pressures, and the personal and social significance of competitions that might escalate with age and level of play.

**Differences In Emotional Intelligence and Competitive State Anxiety Based on Level of Participation**

Table 4 demonstrates the appropriate \( t=-.530 \), degrees of freedom (df) = 142, and \( p =.59 \). Findings show the significance threshold is larger than .05 (\( p > .05 \)). Thus, the null hypothesis 3 (H\(_0\)3) failed to be rejected. Therefore, no significant difference exists in emotional intelligence for both district and state representatives. The absence of notable variances in emotional intelligence between state and national-level players suggests that emotional intelligence, as a trait, might be a foundational characteristic that is not necessarily enhanced by playing at a higher competitive level. This implies that the capacity for understanding, using, and managing emotions effectively is equally distributed among athletes, regardless of their level of participation.
In the world of athletics, it is essential to learn how to effectively control emotions under pressure. Senior athletes with a great deal of experience may be better able to handle the pressures of competition and, as a result, have better emotional control under pressure. Similar results have been attained and reported in earlier research that has been published (Aouani et al., 2022). Significant age-related variations were found in the study for major EI components. The current study’s findings show that there is no discernible connection between involvement level and EI. This result is contrary to the conclusion of Rodríguez-Romo et al (2021), in which research found that athletes with more experience in competitive sports and higher levels of involvement have higher emotional intelligence.

Table 4 also demonstrates that players involved at the national level were significantly different from players at the state level on competitive state anxiety, ($p < .001$). Inspection of the two groups indicates that the competitive state anxiety for those who take part at the national level ($M=20.00$) is significantly lower than those at the state level ($M=24.78$). Therefore, the null hypothesis 4 ($H_04$) was rejected. Furthermore, the results indicated a difference between competitive state anxiety and the level of participants. Players representing the state level show higher competitive state anxiety than the national level. This finding is equivalent to Tomé-Lourido & Fernández (2019), the higher the level of the participant, the lower the state of competitive state anxiety. The observation that state-level players exhibit higher Competitive State Anxiety compared to their national counterparts is particularly intriguing. This could be attributed to several factors, such as the pressure to reach the national level, fear of underperforming in a more localized and possibly more scrutinized setting, or less experience in dealing with high-pressure situations that might be more common at the national level.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Category</th>
<th>N</th>
<th>$\bar{x}$</th>
<th>$\sigma$</th>
<th>t</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Competitive State Anxiety</td>
<td>State</td>
<td>139</td>
<td>24.7842</td>
<td>3.4342</td>
<td>16.424</td>
<td>138</td>
<td>0.001</td>
</tr>
<tr>
<td></td>
<td>National</td>
<td>5</td>
<td>20.0000</td>
<td>0.0000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emotional</td>
<td>State</td>
<td>139</td>
<td>125.7554</td>
<td>15.2614</td>
<td>-0.530</td>
<td>142</td>
<td>0.597</td>
</tr>
<tr>
<td></td>
<td>National</td>
<td>5</td>
<td>129.4000</td>
<td>8.0498</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p<0.05

**Relationship Between Emotional Intelligence, Competitive State Anxiety and Performance Satisfaction**

A Pearson correlation coefficient ($r$) was calculated to see whether emotional intelligence and player performance satisfaction were statistically significantly correlated. The results displayed in Table 5 demonstrated a statistically significant high positive correlation ($r = .758$, $p < .001$) between the two variables, suggesting a strong relationship. The high positive correlation between emotional intelligence and performance satisfaction indicates that players with higher levels of emotional intelligence tend to be more satisfied with their performance. This could be because emotionally intelligent individuals are better at managing their emotions, maintaining positive relationships, and navigating the pressures of competitive sports, leading to a more positive appraisal of their performance and experiences. To determine if competitive state anxiety and performance satisfaction are statistically significantly correlated, the Pearson correlation coefficient ($r$) was calculated. Results show
there is a relationship between player competitive state anxiety and performance satisfaction. According to the statistics, there is a negative strong correlation between player competitive state anxiety and performance satisfaction ($r = -0.796$, $p < 0.001$). The strong negative correlation between competitive state anxiety and performance satisfaction suggests that higher levels of anxiety are associated with lower levels of performance satisfaction. This is consistent with the understanding that anxiety can impair performance by causing distractions, reducing focus, and leading to negative self-evaluations. Thus, the null hypothesis 5 ($H_{05}$) and 6 ($H_{06}$) failed to be rejected.

Table 5

<table>
<thead>
<tr>
<th>Correlation analysis</th>
<th>Performance Satisfaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional Intelligence</td>
<td>Pearson Correlation</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
</tr>
<tr>
<td>Competitive State Anxiety</td>
<td>Pearson Correlation</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
</tr>
<tr>
<td></td>
<td>N</td>
</tr>
</tbody>
</table>

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

Influence of Emotional Intelligence and Competitive State Anxiety Towards Performance Satisfaction

From Table 7, Model 1 shows that Emotional Intelligence (EI) alone accounts for 46.4% of the variance in Performance Satisfaction (PS). This significant relationship underscores the importance of EI in contributing to athletes' satisfaction with their performance. Model 2 indicates that Competitive State Anxiety (both somatic, cognitive, and self-confidence components) has a slightly stronger relationship with PS than EI alone, accounting for 52.3% of the variance in PS. This highlights the critical impact of managing anxiety for improving player satisfaction. Model 3 demonstrates that when combining EI with CSA, the explanatory power of the model increases to 75.1%. This combined model provides a more nuanced understanding of the factors influencing PS, suggesting that interventions aimed at enhancing performance satisfaction. Thus, the null hypothesis 7 ($H_{07}$) and 8 ($H_{08}$) failed to be rejected.

Table 7

<table>
<thead>
<tr>
<th>Summary of regression analysis results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model Description</td>
</tr>
<tr>
<td>-------------------</td>
</tr>
<tr>
<td>Model 1: Emotional Intelligence</td>
</tr>
<tr>
<td>Model 2: Competitive State Anxiety</td>
</tr>
<tr>
<td>Model 3: Combined EI and CSA</td>
</tr>
</tbody>
</table>
The findings from the three models illuminate the complex interplay between athletes' emotional intelligence, competitive state anxiety, and satisfaction with performance. While EI presents a significant foundation for performance satisfaction, the stronger impact of CSA highlights the critical role of anxiety management in sports psychology. The combined model's increased explanatory power suggests that interventions aimed at enhancing athletes' performance satisfaction should adopt a holistic approach, addressing both emotional regulation and anxiety management.

Suggested enhancement strategies as below
1. Holistic Emotional Intelligence Development
   Given the stable levels of emotional intelligence, it's crucial to maintain and enhance these competencies through ongoing training programs. These should focus on advanced emotional regulation techniques, developing empathy within team dynamics, and fostering a positive social environment. Such programs can help athletes navigate the pressures of competition more effectively, potentially mitigating the impact on their Competitive State Anxiety.

2. Tailored Anxiety Management Programs
   Recognizing the variance in Competitive State Anxiety between the age groups, it's important to develop age-specific programs. For Under-15 athletes, foundational stress management techniques such as basic relaxation and visualization might be most effective. For Under-18 athletes, more sophisticated strategies like cognitive-behavioral interventions, which address the specific worries and challenges associated with higher-level competition, could be more beneficial.

3. Performance Pressure Workshops
   Conduct workshops that specifically address the pressures of competitive sports. These should include strategies for coping with expectations, handling competition stress, and maintaining focus under pressure. Such workshops can be beneficial for athletes in both age categories but tailored to address the unique challenges they face.

4. Parent and Coach Education
   Educating parents and coaches about the psychological aspects of sports competition is crucial. They play a pivotal role in shaping the athletes' experiences and can significantly impact their anxiety levels. Training should focus on positive reinforcement, managing expectations, and providing support that prioritizes the well-being of the athlete over competitive outcomes.

5. Peer Support Systems
   Develop peer support systems within teams to provide athletes with a relatable support network. Older or more experienced athletes can share their experiences and strategies for managing competitive pressures, fostering a sense of community and mutual support.

6. Mindfulness and Mental Preparedness Training
   Incorporate mindfulness practices and mental preparedness training into the regular training regimen. These practices can help athletes stay present, reduce performance anxiety, and improve concentration, benefitting their overall performance and enjoyment of the sport. By addressing the psychological needs of young netball players through these targeted strategies, we can enhance their resilience, performance, and enjoyment of the sport. It's important to remember that while competitive sports can bring about significant pressures, they also offer invaluable opportunities for personal growth, team building, and the development of life skills that extend far beyond the court.
Conclusion
This study contributes to the growing body of literature in sports psychology by highlighting the significant roles of EI and CSA in influencing performance satisfaction among netball players. The findings suggest that to enhance performance satisfaction, sports psychologists, coaches, and athletes themselves should consider strategies that not only foster emotional intelligence but also effectively address the challenges posed by competitive anxiety.

References


