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EXTENDED ABSTRACT

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EXPLORING THE RELATIONSHIP BETWEEN COMPETITIVE ANXIETY AND ARCHERY PERFORMANCE: EVIDENCE FROM MALAYSIAN ATHLETES

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I. INTRODUCTION

Competitive anxiety significantly impacts athletic performance, particularly in precision sports like archery [1]. This study examines competitive anxiety types among SUKMA and AUG archers, identifies their performance outcomes in various event contexts, and explores the relationship between anxiety levels and performance outcomes [2]. By understanding these dynamics, this research provides insights to optimize mental preparation strategies, aiming to enhance competitive performance among archers [3].

II. METHODS

Competitive anxiety was assessed using the Sport Anxiety Scale-2 (SAS-2), measuring worry, concentration disruption, and somatic anxiety on a four-point Likert scale. Performance was evaluated during scoring events, with archers shooting 72 arrows for a maximum score of 720 points. The study sampled 207 athletes (SUKMA and AUG) from 14 Malaysian states, employing purposive sampling.

III. RESULTS AND DISCUSSION

A. Types of competitive anxiety.

The study identified three primary types of competitive anxiety: Worry (2.56 ± 0.73), Somatic Anxiety (2.22 ± 0.69), and Concentration Disruption (2.41 ± 0.73). "Worry" was the most prevalent across SUKMA and AUG archers, with moderate levels of anxiety observed consistently across all participants. Worry involves excessive concern about performance, which can negatively impact focus and confidence [4].

B. Archers' performance outcomes and types of events.

SUKMA archers showed performance variability, with scores ranging from below 500 to above 650. AUG archers exhibited similar score distributions, with top performers reaching levels comparable to SUKMA's high scorers. Performance outcomes were generally consistent between groups. Performance variations can be influenced by skill level, training, and psychological factors [5].

C. To explore the relationship between competitive anxiety and performance outcomes among archers.

A moderate negative correlation ($r = -0.55$, $p < 0.001$) was found between anxiety and performance, indicating that higher anxiety led to lower scores. "Worry" and "Concentration Disruption" emerged as key contributors to reduced performance, with a consistent relationship observed across SUKMA and AUG archers. Worry and concentration disruption were the main contributors to poor performance [6].

Figure 1 shows that as competitive anxiety increases (x-axis), performance scores (y-axis) tend to decrease. The red trendline indicates a negative correlation ($r = -0.55$), meaning higher anxiety is linked to lower performance.

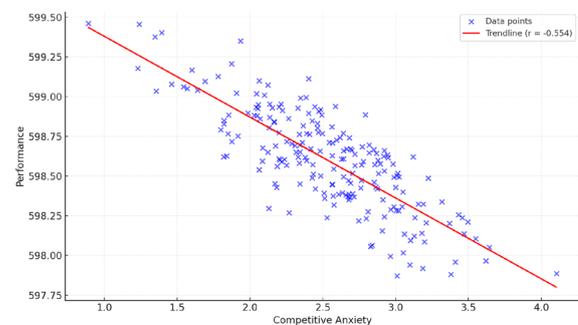


Fig. 1 A scatter plot indicates the correlation between competitive anxiety.

IV. CONCLUSIONS

This study highlights the prevalence of competitive anxiety, particularly "Worry," among archers and its moderate negative impact on performance. Performance outcomes were similar between SUKMA and AUG archers, despite varying anxiety levels. These findings emphasize the need for targeted interventions to manage anxiety, potentially improving performance consistency across competitive events.

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REFERENCES

- [1] Shaari, J., Taib, M. N., & Yusof, M. (2023). Relationship Between Competitive Anxiety and Performance: A Study of the Archers at the National Competition. *Journal of Sports Science & Coaching*, 11(2), 123-130.
- [2] Lim, I. S. (2018). Comparative analysis of the correlation between anxiety, salivary alpha amylase, cortisol levels, and athletes' performance in archery competitions. *Journal of Physical Therapy Science*, 30(12), 1507-1510.
- [3] Kim, Y., & Lee, S. (2022). Effect of Cognitive Reappraisal on Archery Performance of Elite Athletes. *Frontiers in Psychology*, 13, 907055.
- [4] Martens, R., Vealey, R. S., & Burton, D. (1990). *Competitive anxiety in sport*. Human Kinetics.
- [5] Hanin, Y. L. (2007). Emotions in sport: Current issues and perspectives. In G. Tenenbaum & R. C. Eklund (Eds.), *Handbook of sport psychology* (3rd ed., pp. 31–58). Wiley.
- [6] Neil, R., Wilson, K., Mellalieu, S. D., Hanton, S., & Taylor, J. (2011). Competitive anxiety intensity and interpretation: Investigating the accuracy of retrospective recall. *Journal of Sport & Exercise Psychology*, 33(4), 537–554.