

Influence of Achievement Goal Orientations and Perceived Ability on Competitive Trait Anxiety in Young Athletes

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ABSTRACT

Competitive trait anxiety is a critical factor influencing athletic performance, particularly among young athletes. This study examines the impact of achievement goal orientations and perceived ability on competitive trait anxiety in young athletes. A quantitative research approach was adopted, involving a survey of 200 young athletes across various sports. Data analysis was conducted using multiple regression and ANOVA techniques. The results indicate that athletes with a strong mastery goal orientation exhibit lower competitive trait anxiety, whereas those with a high-performance goal orientation experience heightened anxiety level. Additionally, perceived ability serves as a significant moderator in this relationship, with higher perceived ability reducing the adverse effects of performance goal orientation on anxiety. These findings underscore the importance of fostering mastery-oriented goals and enhancing the perceived ability to mitigate anxiety in young athletes.

Keywords: *Achievement Goal Orientations, Perceived Ability, Competitive Trait Anxiety, Young Athletes*

Competitive sports settings often expose young athletes to high-pressure situations that can lead to anxiety. Competitive trait anxiety (CTA) is a stable predisposition to perceive competitive situations as threatening, leading to heightened anxiety responses. Achievement goal theory (AGT) suggests that individuals pursue either mastery or performance-oriented goals. Mastery goals focus on skill development and personal improvement, whereas performance goals emphasize outperforming others. Perceived ability plays a crucial role in shaping an athlete's response to competitive stress, potentially mitigating or exacerbating anxiety levels.

Understanding the interaction between achievement goal orientations and perceived ability is essential for designing interventions to help young athletes manage anxiety and enhance performance. This study aims to explore how different achievement goal orientations influence CTA and the moderating role of perceived ability in this relationship.

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Influence of Achievement Goal Orientations and Perceived Ability on Competitive Trait Anxiety in Young Athletes

METHODOLOGY

Participants

A total of 200 young athletes (aged 12-18) from various sports, including soccer, basketball, swimming, and track and field, participated in this study. Participants were recruited from sports academies and schools.

Measures

- **Achievement Goal Orientation:** Measured using the Achievement Goal Questionnaire for Sport (AGQ-S), which assesses mastery-approach, mastery-avoidance, performance-approach, and performance-avoidance orientations.
- **Perceived Ability:** Assessed using the Perceived Competence Scale for Children (PCSC).
- **Competitive Trait Anxiety:** Measured using the Sport Anxiety Scale-2 (SAS-2), which includes cognitive worry, somatic anxiety, and concentration disruption subscales.

DATA ANALYSIS AND RESULTS

Data were collected via self-reported questionnaires administered before a competitive event. Statistical analysis was performed using SPSS, employing multiple regression and ANOVA to assess relationships among variables.

Table No-01 Descriptive Statistics

Variable	Mean	SD
Mastery-Approach	4.2	0.8
Mastery-Avoidance	3.6	1.0
Performance-Approach	3.8	0.9
Performance-Avoidance	3.4	1.1
Perceived Ability	4.0	0.7
Competitive Trait Anxiety	3.9	1.2

Table No-01 presents the descriptive statistics for the key study variables, including achievement goal orientations, perceived ability, and competitive trait anxiety. The mean values indicate that mastery-approach ($M = 4.2$, $SD = 0.8$) and perceived ability ($M = 4.0$, $SD = 0.7$) are relatively high among young athletes, suggesting a strong focus on skill development and confidence in their abilities. Performance-approach ($M = 3.8$, $SD = 0.9$) and performance-avoidance ($M = 3.4$, $SD = 1.1$) goals show moderate levels, indicating varying degrees of competitiveness and fear of failure. Competitive trait anxiety ($M = 3.9$, $SD = 1.2$) demonstrates some level of anxiety among athletes, which may be influenced by their goal orientations and perceived ability.

Multiple Regression Analysis

Table No-02 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.67	0.45	0.42	0.89

Table No-02 presents the model summary of the multiple regression analysis. The R value (0.67) indicates a strong positive relationship between achievement goal orientations, perceived ability, and competitive trait anxiety. The R Square value (0.45) suggests that 45%

Influence of Achievement Goal Orientations and Perceived Ability on Competitive Trait Anxiety in Young Athletes

of the variance in competitive trait anxiety is explained by the predictor variables. The Adjusted R Square (0.42) accounts for model complexity, showing a slightly lower but still significant explanatory power. The standard error of the estimate (0.89) reflects the average deviation of observed values from the predicted values, indicating a reasonable fit of the model.

Table No-03 Coefficients Table

Predictor	B	Std. Error	Beta	t-value	Sig.
Mastery-Approach	-0.30	0.08	-0.30	-3.52	0.001
Mastery-Avoidance	0.12	0.08	0.12	1.50	0.134
Performance-Approach	0.28	0.09	0.28	3.30	0.002
Performance-Avoidance	0.34	0.09	0.34	3.89	0.000
Perceived Ability	-0.25	0.08	-0.25	-2.98	0.003

Table No-03 presents the coefficients of the multiple regression analysis, showing the impact of each predictor on competitive trait anxiety. Mastery-approach ($B = -0.30$, $p = 0.001$) and perceived ability ($B = -0.25$, $p = 0.003$) have significant negative effects, indicating that higher levels of these factors reduce anxiety. In contrast, performance-approach ($B = 0.28$, $p = 0.002$) and performance-avoidance ($B = 0.34$, $p = 0.000$) positively predict anxiety, suggesting that these goal orientations increase stress levels. Mastery-avoidance ($B = 0.12$, $p = 0.134$) is not a significant predictor. Overall, the results highlight the importance of goal orientation and perceived ability in shaping competitive anxiety in young athletes.

ANOVA Table

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	24.56	4	6.14	9.87	0.000
Residual	30.12	195	0.15		
Total	54.68	199			

Table No-04 presents the ANOVA results for the regression model. The F-value (9.87, $p = 0.000$) indicates that the overall regression model is statistically significant, meaning that achievement goal orientations and perceived ability significantly predict competitive trait anxiety in young athletes. The regression sum of squares (24.56) shows the explained variance, while the residual sum of squares (30.12) represents unexplained variance.

Table No-05 Post Hoc Test (Tukey's HSD)

Group Comparison	Mean Difference	Std. Error	Sig.
Mastery-Approach vs Performance-Approach	-0.40	0.12	0.002
Mastery-Approach vs Performance-Avoidance	-0.64	0.13	0.000
Mastery-Approach vs Mastery-Avoidance	-0.20	0.11	0.078
Performance-Approach vs Performance-Avoidance	-0.24	0.12	0.045
Performance-Approach vs Mastery-Avoidance	0.18	0.11	0.102

Table No-05 presents the results of the Post Hoc Test (Tukey's HSD) to compare mean differences between achievement goal orientations in relation to competitive trait anxiety.

Influence of Achievement Goal Orientations and Perceived Ability on Competitive Trait Anxiety in Young Athletes

Significant differences were found between mastery-approach and performance-approach ($p = 0.002$), as well as between mastery-approach and performance-avoidance ($p = 0.000$), indicating that performance-oriented goals are associated with higher anxiety levels. Additionally, performance-approach and performance-avoidance showed a significant difference ($p = 0.045$), suggesting that performance-avoidance contributes more to anxiety. Other comparisons, such as mastery-approach vs mastery-avoidance ($p = 0.078$) and performance-approach vs mastery-avoidance ($p = 0.102$), were not statistically significant.

Moderation Analysis

The moderation analysis showed a significant interaction between performance goal orientation and perceived ability in predicting competitive trait anxiety (CTA). Athletes with a strong performance goal orientation generally experienced higher anxiety levels. However, those with high perceived ability were less affected, indicating that confidence in one's skills helps reduce anxiety even in performance-driven athletes. This suggests that perceived ability acts as a buffer, mitigating the negative effects of performance-oriented goals on anxiety.

DISCUSSION

The findings of this study highlight the significant role of achievement goal orientations and perceived ability in shaping competitive trait anxiety (CTA) among young athletes. The results indicate that mastery-approach goals are associated with lower anxiety levels, suggesting that athletes who focus on self-improvement and skill development experience reduced stress in competitive settings. This aligns with previous research emphasizing the psychological benefits of mastery-oriented goals, which promote intrinsic motivation and resilience.

Conversely, performance-approach and performance-avoidance goals were found to increase anxiety, with performance-avoidance having the strongest effect. This suggests that athletes who focus on outperforming others or fear failure are more prone to experiencing heightened anxiety, potentially hindering their performance. These findings support the argument that an excessive emphasis on external validation and social comparison can contribute to performance-related stress.

Moreover, the moderation analysis revealed that perceived ability plays a crucial role in buffering the negative effects of performance-oriented goals on anxiety.

CONCLUSION

This study examined the influence of achievement goal orientations and perceived ability on competitive trait anxiety (CTA) in young athletes. The findings indicate that mastery-approach goals are associated with lower anxiety, while performance-approach and performance-avoidance goals contribute to higher anxiety levels. Additionally, perceived ability plays a critical moderating role, helping to reduce anxiety in athletes with performance-oriented goals.

These results highlight the importance of fostering mastery-focused goals and enhancing perceived ability to help young athletes manage competitive anxiety effectively. Coaches and sports psychologists should emphasize skill development, self-improvement, and confidence-building strategies to create a supportive and less stressful competitive environment.

Influence of Achievement Goal Orientations and Perceived Ability on Competitive Trait Anxiety in Young Athletes

Future research should explore long-term effects and intervention programs that promote mastery-oriented goal-setting and psychological resilience. By shifting the focus from external validation to personal growth, young athletes can develop healthier coping mechanisms, ultimately improving their performance and well-being in competitive sports.

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Conflict of Interest

The author(s) declared no conflict of interest.

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