

INTEGRATING SELF-DETERMINATION THEORY AND ACHIEVEMENT GOAL ORIENTATION IN MANAGING COMPETITIVE ANXIETY AMONG UNIVERSITY ATHLETES: A CONCEPTUAL REVIEW

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ABSTRACT

University sports participation is inherently competitive, often producing both positive and negative behavioural outcomes shaped by athletes' psychological states, particularly competitive anxiety. This study examined the relationship between self-determination, goal orientations, and competitive anxiety among university athletes in Southwest Nigeria, with a focus on Lagos State. Drawing on Self-Determination Theory, key components autonomy, competence, relatedness, and causality orientations were analyzed alongside goal orientation dispositions (task and ego) to determine their influence on athletes' anxiety levels. A review-based approach was adopted to synthesize existing empirical and theoretical evidence. Findings indicate that self-determination components and goal orientations significantly contribute to variations in competitive anxiety among university athletes. Specifically, athletes with higher levels of autonomy, competence, and task-oriented goals tend to experience more adaptive psychological outcomes, whereas ego orientation is more closely associated with maladaptive anxiety responses. The study recommends that coaches adopt individualized motivational strategies tailored to athletes' psychological needs, implement structured anxiety management training, and foster supportive motivational climates. Additionally, promoting a flow-oriented mindset is essential for optimizing performance and psychological well-being among university athletes.

Keywords: Achievement Goal Orientation, Competitive Anxiety, Self Determination Theory, University Athletes

Introduction

Competitive anxiety is widely recognized as a critical psychological factor influencing athletic performance. According to Stoeber (2011), athletes often experience feelings of worry, tension, stress, and threat before or during competitions, largely due to the uncertainty and significance of the event, the level of competition, and crowd influences. Within the framework of perfectionism, athletes may demonstrate both adaptive and maladaptive behavioural patterns. On the adaptive side, traits such as high personal standards, positive achievement striving, satisfaction, and enhanced self-esteem are evident, often positioning such athletes as high achievers. Conversely, maladaptive tendencies including excessive concern over mistakes, doubts about actions, perceived pressure from evaluation, and fear of failure are closely associated with increased levels of competitive anxiety.

Empirical evidence further supports the link between anxiety and performance outcomes. Behzadi, Hamzei, Nori, and Salehian (2011), citing Rezayee (2005), identified competitive anxiety as a significant variable influencing athletic performance. Expanding on this, Vipene and Emeribe (2014): Weinberg and Gould (2019), conceptualized anxiety as a negative emotional state characterized by uneasiness, fear, discomfort, worry, and hesitation. This condition is typically triggered by stressful stimuli and involves physiological, behavioural, and cognitive responses that may impair an athlete's adaptability and overall performance.

Furthermore, competitive anxiety tends to arise when the demands of training or competition exceed an athlete's perceived capabilities (Rezayee, 2005). During high-stakes events such as championships and tournaments, athletes are required to cope with intense physical and psychological demands. When these demands surpass their available physiological, behavioural, and mental resources, it results in heightened pressure and anxiety. Competitive anxiety has also been described as a predisposition to perceive competitive situations as threatening, accompanied by feelings of nervousness, stress, and pressure (Ahsan, Ruru, & Kumar, 2014). Notably, anxiety levels tend to increase sharply prior to competition and decrease afterward, yet this fluctuation can negatively affect performance. Overall, competitive anxiety reflects an interaction between emotional tension and heightened autonomic nervous system activity, particularly evident before and during sporting events.

Recent literature has further strengthened the understanding of competitive anxiety as a multidimensional construct closely linked with motivation, performance, and psychological well-being in athletes. Contemporary studies emphasize that competitive anxiety extends beyond immediate performance outcomes to include broader psychological consequences such as burnout and reduced well-being. For instance, Yang et al. (2024) reported that competitive anxiety significantly predicts athlete burnout, with autonomy and competence serving as key mediating variables. This finding underscores the importance of self-determination components in buffering against maladaptive psychological outcomes.

Similarly, emerging evidence highlights the interaction between goal orientation and competitive anxiety. Wu et al. (2025) found that task-oriented athletes tend to exhibit lower levels of anxiety and more effective coping strategies compared to ego-oriented athletes, who are more susceptible to maladaptive anxiety responses. This reinforces the proposition that motivational orientation plays a central role in determining whether anxiety is facilitative or debilitating in competitive settings.

In addition, intervention-based research has demonstrated the effectiveness of psychological skills training in managing competitive anxiety. Recent studies (Yang et al., 2024; Wu et al., 2025) indicate that structured psychological interventions such as relaxation techniques, cognitive restructuring, and mindfulness-based strategies significantly reduce cognitive and somatic anxiety while enhancing self-confidence and intrinsic motivation among

athletes. These findings align with contemporary perspectives that advocate for integrated psychological support systems in sports.

Moreover, recent investigations have explored the relationship between competitive anxiety and optimal performance states such as flow. Evidence from Lochbaum and Sisneros (2024), studies suggests that lower levels of anxiety are associated with higher self-confidence and an increased likelihood of experiencing flow states, which are critical for peak athletic performance. This highlights the dual importance of anxiety management not only for preventing performance decline but also for facilitating optimal psychological functioning.

Overall, both classical and recent studies converge on the view that competitive anxiety is a complex and dynamic construct influenced by self-determination, goal orientation, and environmental demands. While moderate levels of anxiety may enhance alertness and readiness, excessive anxiety remains detrimental to both performance and psychological well-being. Consequently, there is a growing consensus on the need for individualized motivational strategies and evidence-based psychological interventions to help athletes effectively regulate anxiety and achieve optimal performance outcomes.

Self determination theory on competitive anxiety among university athletes

Self-determined behaviour is initiated and regulated through personal choices grounded in the awareness of psychological needs and integrated goals. Self-determination, as a psychological construct, explains how individuals interpret internal and external stimuli, with such interpretations gaining motivational significance through their relationship with basic psychological needs (Deci & Ryan, 2008; Ryan & Deci, 2017; Deci & Ryan, 2022). Within the domain of sport psychology, research has consistently demonstrated that athletes' motivation and regulation of competitive behaviour are strongly influenced by their level of self-determination (Ryan & Deci 2017: 2020: Ryan 2025). This perspective is grounded in Self-Determination Theory (SDT), which conceptualizes motivation along a continuum ranging from amotivation (low self-determination) to intrinsic motivation (high self-determination), with extrinsic motivation occupying intermediate positions depending on the degree of internalization (Ryan & Deci 2019a: Deci & Ryan, 2022: Ryan 2025).

SDT remains one of the most influential frameworks for understanding motivation in sport and physical activity, as it explains behaviour in relation to motivational orientation, environmental context, and interpersonal dynamics. According to this theory, intrinsic motivation reflects engagement in sport for inherent satisfaction, enjoyment, and interest, while extrinsic motivation involves participation driven by external rewards or pressures. At the lowest end of the continuum is amotivation, characterized by a lack of intention, goal direction, and perceived control over behaviour. Individuals experiencing amotivation often feel incompetent and believe that their actions are controlled by external forces, leading to disengagement and reduced effort.

Relevance of SDT to competitive anxiety among university athletes

The relevance of SDT to competitive anxiety among university athletes lies in its explanation of how psychological need satisfaction influences emotional and cognitive responses to competition. Recent studies have shown that athletes who experience higher levels of autonomy, competence, and relatedness tend to report lower levels of competitive anxiety and greater psychological resilience (Ntoumanis et al., 2021; Ryan & Deci, 2022). Conversely, when these basic psychological needs are frustrated, athletes are more likely to experience maladaptive outcomes, including heightened cognitive and somatic anxiety, fear of failure, and performance pressure.

Empirical evidence further indicates that intrinsic motivation is negatively associated with competitive anxiety, as intrinsically motivated athletes perceive competition as a challenge rather than a threat. In contrast, externally regulated athletes and those experiencing amotivation are more vulnerable to anxiety due to increased dependence on external validation

and fear of negative evaluation (Howard et al., 2021; Li et al., 2023; Ryan 2025). Among university athletes, who often face dual demands of academic and athletic performance, the role of self-determination becomes even more critical in buffering against stress and anxiety.

Moreover, self-determination components, particularly competence and autonomy, significantly predict lower levels of competitive anxiety, while also enhancing self-confidence and facilitating optimal performance states such as flow (Yang et al., 2024; Wu et al., 2025). These findings suggest that fostering self-determined motivation within university sport settings can serve as an effective psychological mechanism for managing anxiety and improving performance outcomes.

Given the strong association between self-determination, motivational regulation, and psychological well-being, it is essential to examine how these factors interact with goal orientation and competitive anxiety in sports. Understanding this relationship is particularly important among university athletes, who are frequently exposed to high-performance expectations and psychological pressures.

In the African context, particularly in Nigeria, emerging empirical studies have further validated the relationship between psychological factors and competitive anxiety among university athletes. For instance, Olayemi et al. (2025) found that psychological skills training significantly reduced cognitive and somatic anxiety among student-athletes in the University of Lagos. Similarly, Ochor and Amasiatu (2024) reported that perceived social evaluation increased performance anxiety among undergraduate athletes in the University of Port Harcourt. In addition, Ekechukwu and Isiguzo (2020) established that anxiety is a significant predictor of athletic performance among Nigerian university athletes. These findings underscore the importance of psychological preparedness and self-regulation in managing competitive anxiety within the Nigerian sport context.

Achievement goal orientation on competitive anxiety among university athletes

Goal orientation is a central psychological construct in achievement settings, reflecting the attitudes and behaviours individuals adopt in striving for competence and success. It represents a dispositional tendency to pursue either a learning (mastery/task) orientation where individuals focus on developing competence and improving skills or a performance (ego) orientation, where the emphasis is on demonstrating superiority over others (Van Yperen & Janssen, 2011; Usoroh, Akpan, & Effiong, 2015). Rooted in Achievement Goal Theory (AGT), this framework conceptualizes goals as cognitive representations that guide behaviour in achievement contexts (Sadikhani, 2006). Goal orientation, therefore, provides the motivational energy that drives behaviour and shapes how individuals define competence and evaluate success (Philyawa, et al 2024).

AGT distinguishes between two primary goal orientations: task orientation and ego orientation. These orientations are largely shaped by social influences and determine the criteria athletes use to judge competence and success in sport (Radosevich, Allyn, & Yun, 2007). Athletes with a task orientation define success based on personal improvement, skill mastery, and effort. Their competence is self-referenced, and performance is evaluated against personal progress (Ntoumanis & Moller 2025). This orientation emphasizes the learning process, problem-solving, and intrinsic engagement rather than external outcomes (Oyewumi, 2008). In contrast, ego-oriented athletes evaluate competence through social comparison, where success is defined by outperforming others and demonstrating superior ability (García et al., 2005; Oyewumi & Oyekunle 2016). This orientation often emphasizes winning, status, and external validation, sometimes leading to maladaptive behaviours such as unsportsmanlike conduct and heightened competitive pressure.

The relevance of AGT to competitive anxiety lies in how these goal orientations influence athletes' emotional and cognitive responses to competition. Task orientation has consistently been associated with adaptive psychological outcomes, including greater

persistence, intrinsic motivation, enjoyment, and lower levels of anxiety (Núñez, 2010; Lin et al. 2025). Athletes with a mastery focus tend to perceive competitive situations as opportunities for growth, thereby experiencing lower cognitive and somatic anxiety. In contrast, ego orientation has been linked to maladaptive outcomes such as heightened anxiety, fear of failure, and negative attitudes toward competitors (Sari, Ilić, & Ljubojević, 2013). Because ego-oriented athletes rely heavily on external validation, they are more vulnerable to performance pressure and anxiety, particularly in highly competitive environments.

Recent international research has reinforced these relationships. For instance, Lochbaum et al. (2021) found that task orientation is negatively associated with competitive anxiety and positively related to self-confidence and performance satisfaction among athletes. Similarly, Harwood et al. (2022) reported that athletes in mastery-oriented contexts exhibit lower levels of stress and anxiety due to increased perceptions of competence and autonomy. More recently, Wu et al. (2025) demonstrated that task-oriented collegiate athletes show better emotional regulation and reduced competitive anxiety compared to ego-oriented athletes, confirming the protective role of mastery goals in competitive sport.

The motivational climate created by coaches, peers, and the sporting environment also plays a crucial role in shaping goal orientations and their relationship with anxiety. AGT identifies two types of motivational climates: mastery-oriented (task-involving) and performance-oriented (ego-involving) climates (Weinberg & Gould, 2019; Kong et al., 2023). A mastery-oriented climate emphasizes effort, improvement, and cooperation, and has been shown to enhance psychological well-being, increase self-confidence, and reduce anxiety (Rodrigues et al. 2024). Conversely, an ego-involving climate emphasizes competition, comparison, and outcomes, which often leads to increased anxiety, lower satisfaction, and reduced well-being (Piri et al., 2014).

In the African and Nigerian context, emerging empirical studies support these theoretical assertions. For instance, Ochor and Amasiatu (2024) found that perceived social evaluation and comparison significantly increased performance anxiety among Nigerian university athletes, reflecting characteristics of ego-oriented motivation. Similarly, Olayemi et al. (2025) reported that psychological interventions promoting self-regulation and mastery focus significantly reduced competitive anxiety among student-athletes in Lagos. Additionally, Ekechukwu and Isiguzo (2020) established that anxiety is a significant predictor of performance outcomes among Nigerian university athletes, further emphasizing the need to understand motivational dispositions in managing anxiety.

Furthermore, contemporary perspectives advocate for an integrated approach combining Achievement Goal Theory and Self-Determination Theory to better explain athlete motivation and emotional outcomes. Kong et al (2023), posits that integrating both frameworks provides a more comprehensive understanding of how motivational orientations and psychological need satisfaction jointly influence behaviour and affective states such as competitive anxiety. Recent studies (Ntoumanis et al., 2021; Li et al., 2023) support this integration, showing that athletes who are both task-oriented and self-determined are more likely to experience adaptive outcomes, including lower anxiety and improved performance.

In summary, AGT provides a robust framework for understanding competitive anxiety in sports by explaining how athletes' definitions of success and competence influence their emotional responses to competition. Task orientation and mastery climates are associated with reduced anxiety and enhanced psychological well-being, whereas ego orientation and performance climates tend to increase vulnerability to competitive anxiety. This underscores the importance of fostering adaptive motivational environments among university athletes to promote optimal performance and mental health

Interplay of Self-Determination Theory and Achievement Goal Theory in Sport Motivation: Addressing Gaps and Advancing Predictive Utility

Motivation remains central to understanding athletes' behaviour and performance, yet existing frameworks often focus on isolated dimensions of motivation rather than the interactions among them. Self-Determination Theory (SDT) and Achievement Goal Theory (AGT) are among the most influential theoretical perspectives in sport psychology, but research has largely examined these models in isolation, which constrains their explanatory and predictive power. A key gap is the limited integration of SDT and AGT constructs to comprehensively explain how motivational quality interacts with goal orientations in competitive sport. Integrating these theories provides a more complete understanding of why athletes engage, how they interpret success, and what environments facilitate adaptive outcomes.

SDT explains the “why” of motivation by focusing on satisfaction of basic psychological needs autonomy, competence, and relatedness which underpin autonomous forms of motivation (intrinsic and integrated) and are positively related to persistence, well-being, and sustained engagement in sport (Ryan & Deci, 2019, 2022). Research highlights that environments supporting these needs lead to more self-determined motivation, which predicts adaptive behaviours across physical activity and sport settings. Recent SDT-based intervention studies demonstrate positive effects on motivational outcomes and well-being, especially when contexts foster autonomy and competence (Barbosa Cano et al., 2025).

AGT focuses on the “how” of achievement behaviour, distinguishing task/mastery and ego/performance goal orientations and the impact of motivational climate on behavioural outcomes. Task-involving climates consistently relate to positive affect, satisfaction, and engagement, whereas ego-involving climates show weaker associations with positive outcomes (recent systematic review/meta-analysis). However, AGT is limited in explaining *why* these orientations yield different motivational outcomes a question that SDT addresses through psychological need satisfaction.

Bridging the explanatory gap through theoretical integration.

When combined, SDT explains the quality of motivation (autonomous vs. controlled), while AGT contextualizes the direction of goal pursuit (task vs. ego). Integrative models propose that mastery-goal climates enhance need satisfaction, which in turn fosters autonomous motivation and positive outcomes (e.g., enjoyment, effort) yet empirical integration remains underdeveloped in sport contexts beyond education and physical activity literature, leaving a theoretical gap in understanding motivational processes in performance settings (e.g., youth football longitudinal research integrating both theories).

Purpose and usefulness of integration:

By combining SDT and AGT, researchers can more precisely predict adaptive outcomes such as emotional regulation, flow, resilience under competitive pressure, and consistent high performance. This integrated perspective guides motivational profiling, intervention design, and coach education to cultivate environments that satisfy basic needs and promote mastery orientations, thereby optimizing athletes' psychological well-being and performance. For instance, in youth sport, motivational climates that satisfy athletes' psychological needs and support mastery goals can enhance intrinsic motivation and sustained participation, addressing the motivational decline often observed during adolescence.

In conclusion, integrating SDT and AGT fills a critical theoretical and practical gap in sport psychology by linking motivational *quality* with motivational *direction*, offering a robust framework for understanding and applying motivational processes that promote both performance and well-being in athletic populations.

Conclusion

This review examined self-determination and goal orientation as key psychological constructs for understanding and managing competitive anxiety in healthy university athletes. Self-determination theory emphasizes basic psychological needs autonomy, competence, relatedness, and causality orientations while achievement goal theory highlights goal orientations, including task/mastery and ego/performance dispositions. Integrating these frameworks provides a comprehensive model that explains athletes' motivational styles and associated behaviours. Evidence from multiple studies suggests that athletes with high self-determination are more likely to adopt task-oriented approaches, demonstrating adaptive behaviours such as persistence, resilience, and positive emotional regulation. Conversely, athletes with lower self-determination tend to be ego-oriented, displaying maladaptive behaviours including excessive comparison, anxiety, and vulnerability to stress. The interplay of these motivational constructs offers a nuanced understanding of how internalized motivation and environmental goal climates collectively shape performance, psychological well-being, and the capacity to manage competitive anxiety.

Recommendations

1. For Coaches and Sport Psychologists:

Develop and implement training programs that foster autonomy, competence, and relatedness, alongside task-oriented motivational climates, to promote intrinsic motivation and adaptive coping strategies.

Integrate psychological skills training, including stress management, emotional regulation, and resilience-building exercises, to help athletes manage competitive anxiety and maintain optimal performance under pressure.

Encourage reflective practices, goal-setting, and self-monitoring to enhance self-awareness and self-regulation, enabling athletes to internalize motivation and sustain effort.

2. For Academics and University Programs:

Design curricula and workshops on motivational theory, goal orientation, and psychological skills for student-athletes to strengthen understanding and application of self-determination principles in sport contexts.

Support research-informed interventions that track motivational development and psychological outcomes over the athletic career trajectory, ensuring sustained engagement, enjoyment, and skill progression.

3. For Future Research:

Extend studies to cross-cultural contexts and multiple universities in Nigeria to examine the generalizability of the SDT-AGT integration across different age groups, athletic standards, and cultural environments.

Investigate longitudinal effects of self-determination and goal orientation on competitive anxiety, coping strategies, and performance outcomes to identify patterns over time.

Explore not only the frequency but also the perceived effectiveness of psychological skill usage, including interventions targeting emotional intelligence, flow states, and motivational climates, to refine practical strategies for athletes.

Examine the role of emerging constructs, such as optimism, growth mindset, and mental toughness, in enhancing the relationship between motivational profiles and adaptive behavioural outcomes.

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