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The Influence of Sport Anxiety and Simulated Game Training on The Competitive Performance of College Basketball Players in Pingdingshan, China

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Abstract

Introduction: *College basketball players often show a clear gap between training performance and game performance. Although many athletes can complete technical tasks effectively in routine practice, they may struggle to reproduce the same level of execution under competitive pressure. This paper examines that gap through the linked perspectives of sport anxiety and simulated game training.* ***Method:*** *This article is a stage-based manuscript derived from a broader doctoral study on college basketball players in Pingdingshan, China. It reorganizes the theoretical rationale, research design, intervention logic, and measurement framework of a six-week simulated game training program. The proposed design combines score pressure, time limits, tactical reproduction, critical-possession tasks, and full-court confrontation, while assessing sport anxiety with the Sport Anxiety Scale-2 and competitive performance through self-report, coach evaluation, and game-related indicators.* ***Results and discussion:*** *The discussion indicates that simulated game training has practical value because it creates training conditions that more closely resemble actual competition. From the perspective of sport anxiety, this form of training may support technical stability, tactical execution, attentional control, and psychological adaptation under pressure. It is especially relevant for ordinary university teams, where training time, staffing, and psychological support are often limited.* ***Conclusion and/or recommendations:*** *Simulated game training offers a feasible and low-cost approach to strengthening transfer from practice to competition. Future empirical work should verify its effectiveness through formal statistical analysis, subgroup comparison, and longer follow-up across different groups of college basketball players.*

Keywords: *college basketball, sport anxiety, simulated game training, competitive performance, training transfer, psychological adaptation*

1. Introduction

College basketball is an important part of university sport development in China. In many institutions, the basketball team is expected to represent the university in campus leagues and external competitions while also contributing to student culture, visibility, and institutional identity. As competitive expectations rise, coaches and athletes are increasingly concerned not only with technical training volume but also with the consistency with which training

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gains can be expressed in formal games. A recurring problem is that players may appear technically sound in regular drills yet become less accurate, less decisive, and less composed once a game becomes physically demanding and psychologically tense.

This gap between practice performance and game performance cannot be explained by technical factors alone. Basketball requires rapid perception, continuous decision making, communication, physical confrontation, and emotional regulation. A player may know what to do tactically but still fail to execute it when under pressure, especially in final possessions, after mistakes, or when facing stronger opponents. For this reason, the study of competitive performance in basketball must consider not only physical and tactical preparation but also the psychological conditions under which performance is produced.

Among these psychological conditions, sport anxiety deserves particular attention. Sport anxiety is not merely a vague feeling of nervousness. It may involve worry about performance outcomes, bodily tension, increased physiological arousal, and disruption of concentration. In basketball, these responses can interfere with shot selection, timing, defensive judgment, passing accuracy, and communication with teammates. Because the game unfolds rapidly, even brief moments of hesitation or attentional narrowing may affect the quality of performance. The multidimensional assessment of anxiety has therefore become an important foundation for understanding competition behaviour in athletes (Smith et al., 2006).

This issue may be especially salient in ordinary university teams. Unlike elite professional systems, college teams often operate with limited training time, mixed ability levels, uneven competitive exposure, and restricted access to specialized sport psychology services. Student-athletes must also balance academic work with training and competition. Under these conditions, the transfer of training effects into formal games becomes a practical challenge. Coaches may observe that athletes perform drills successfully but still struggle in matches that involve score pressure, physical confrontation, and tactical uncertainty.

At the same time, the limits of conventional basketball training should be acknowledged. Technical repetition, fitness development, and tactical instruction remain essential, yet training conducted mainly in predictable settings may not adequately prepare athletes for the unstable, time-pressured, and emotionally demanding nature of actual competition. When athletes rehearse skills in environments that lack game-like urgency, they may improve isolated movements without becoming equally capable of sustaining those movements under match conditions. The result is a familiar pattern: good training sessions, but inconsistent performance in competition.

Simulated game training offers a useful response to this problem. Rather than waiting for pressure to emerge only in official matches, it incorporates competitive demands directly into training. Such demands may include score deficits, countdown pressure, full-court confrontation, restricted possessions, tactical reproduction under fatigue, and repeated exposure to critical moments. In this way, training is designed not only to improve technique

but also to strengthen the athlete's ability to execute technique while under psychological and situational stress.

This paper discusses the relationship between sport anxiety, simulated game training, and competitive performance among college basketball players in Pingdingshan, China. It is not intended as a final empirical report. Instead, it presents a stage-based academic account of the theoretical basis, research logic, and practical design of a broader doctoral project. By clarifying why anxiety matters, why simulated game training is relevant, and how the two may be linked in the production of competitive performance, the paper seeks to provide a coherent framework for later empirical analysis and for practical use by university basketball coaches.

2. Literature review

2.1 Sport anxiety and competitive performance

Sport anxiety has long been recognized as an important psychological factor in athletic performance. In basketball, anxiety may appear in at least three related forms: cognitive worry about performance outcomes, somatic tension and physiological arousal, and disruption of concentration during play. These dimensions are especially important in a sport where athletes must make quick judgments while moving under pressure. When anxiety is not well regulated, players may rush decisions, hesitate in open situations, over-focus on mistakes, or fail to reproduce technical actions with their normal level of fluidity.

The Sport Anxiety Scale-2 provides a useful framework for examining this issue because it treats sport anxiety as a multidimensional construct rather than as a single undifferentiated feeling (Smith et al., 2006; Zhang et al., 2023). This is valuable for basketball research because different components of anxiety may affect performance in different ways. Worry may narrow attention toward consequences and self-evaluation. Somatic tension may reduce movement smoothness and timing. Concentration disruption may interfere with defensive reading, passing options, or tactical execution. For coaches and researchers, this means that poor game performance should not automatically be interpreted as a lack of skill. In some cases, the more immediate problem may be an inability to regulate the psychological responses that accompany competitive stress.

For college players, the relationship between anxiety and performance may be particularly important. University athletes often have uneven experience in official competition and may face inconsistent exposure to high-stakes games. Many are still developing their self-confidence, decision-making maturity, and emotional control. As a result, they may show clear technical potential in routine practice yet fail to maintain performance stability in formal matches. Anxiety therefore becomes more than a secondary mental state; it is one possible explanation for why training effects do not always translate directly into competition outcomes.

2.2 Simulated game training and training transfer

If competitive pressure influences performance, then training should also prepare athletes for pressure. This is the central rationale behind simulated game training. Instead of relying only on isolated drills, simulated game training places athletes in structured situations that resemble the perceptual, tactical, temporal, and emotional demands of real competition. In basketball, this can include playing under time pressure, practicing from score deficits, reproducing tactical sets against active resistance, and resolving repeated critical-possession situations.

The logic of this approach is consistent with representative learning design, which emphasizes that practice should reflect the functional demands of the performance environment (Pinder et al., 2011). When the structure of training resembles the structure of competition, transfer is more likely to occur. Athletes do not simply learn a movement pattern in the abstract; they learn how to perceive information, regulate attention, make decisions, and execute actions within a context that resembles the one in which performance will later be required. This perspective is especially relevant in basketball, where technical skills are tightly embedded in rapidly changing game situations.

The value of simulated game training is also related to the broader idea of transfer of training. Training is useful not merely because it produces improvement within practice but because it enhances later performance in the target setting. Baldwin and Ford (1988) argued that transfer depends on the relationships among training design, trainee characteristics, and the work environment. Applied to basketball, this suggests that a technically sound training session may still produce weak transfer if it does not resemble the decision demands, emotional intensity, and interaction patterns of actual games. Simulated game training attempts to reduce this gap by making practice itself more competition-representative.

In recent years, sport research has shown increasing interest in simulation-based training and decision training. Although virtual simulation, laboratory tasks, and on-court game simulation are not identical, they share a common logic (Ma et al., 2023): each attempts to strengthen performance by increasing the representativeness of the learning environment. For ordinary university teams, on-court simulated game training may be particularly attractive because it does not necessarily require costly technology. Score pressure, tactical urgency, constrained possessions, and realistic confrontation can be built into routine team practice with relatively modest resources.

2.3 The relevance of psychological adaptation in basketball training

In basketball, training quality is not determined only by how often a movement is repeated, but also by whether players can maintain effective performance under emotional and situational pressure. Psychological adaptation should therefore be treated as part of training rather than as a separate issue addressed only before competition. When game-like stressors are included in practice, athletes may gradually become more familiar with pressure and more capable of performing effectively within it.

From this perspective, sport anxiety and simulated game training should not be treated as two isolated topics. Anxiety helps explain why performance becomes unstable when pressure rises. Simulated game training provides a practical method for helping athletes face that pressure within the training process itself. The relationship between the two is potentially reciprocal. High anxiety may weaken performance in simulated tasks, but repeated exposure to appropriately designed simulation may also improve athletes' familiarity with pressure, strengthen attentional control, and reduce the disruptive impact of anxiety over time.

This integrated view is important for university basketball. Many teams cannot separate physical, technical, tactical, and psychological training into different specialist departments. A more realistic strategy is to embed psychological adaptation into ordinary basketball practice. If pressure, uncertainty, and game-like decision demands are systematically included in training, then training may contribute not only to skill refinement but also to emotional readiness and competitive stability. This integrated logic provides a meaningful theoretical basis for the present study.

3. Method

This article is a stage-based academic manuscript derived from a broader doctoral project on college basketball players in Pingdingshan, China. Its purpose is not to present final inferential statistical results, but to organise the conceptual framework, methodological design, and practical intervention logic of the study in a form suitable for journal discussion. The broader project examines the relationships among sport anxiety, simulated game training, and competitive performance among university basketball athletes.

The study is centred on college basketball players from ordinary universities in Pingdingshan. Within the broader design, sport anxiety is assessed through an adapted basketball-context version of the Sport Anxiety Scale-2. The intention is to capture cognitive worry, somatic symptoms, and concentration disruption in official game settings. Competitive performance is considered from both subjective and objective perspectives. Subjective measurement focuses on how athletes evaluate their own official-game execution, decision making, tactical consistency, and stability under pressure. Objective and coach-related indicators include game statistics, tactical execution observations, and coach evaluation. This combination is intended to reduce over-reliance on a single source of performance data.

The intervention logic is built around a six-week simulated game training programme. Rather than replacing routine basketball training, the programme is designed to restructure part of normal practice so that game-like demands are more deliberately represented. The planned training content includes score-pressure tasks, time-limited possessions, tactical reproduction under resistance, repeated critical-possession scenarios, and full-court confrontation. The common feature across these activities is that athletes must preserve technical execution while also regulating psychological pressure and making decisions under constraints.

The proposed design assumes that transfer from practice to competition improves when athletes repeatedly experience functional elements of real competition in training. In practical

terms, this means that a player should not only rehearse passing, shooting, spacing, and defensive response in ideal conditions; the player should also rehearse them when fatigue accumulates, when the score is unfavourable, when time is restricted, and when mistakes have immediate tactical consequences. Simulated game training therefore serves as a bridge between isolated training tasks and the unstable realities of formal games.

In the broader study, supporting qualitative materials are also included. Coach feedback, interview-based observations, and implementation notes are intended to clarify how athletes respond to the training design and how coaches evaluate behavioural changes across the intervention period. These materials are useful because the meaning of performance change in basketball is not always captured fully by statistics alone. For example, tactical maturity, communication quality, emotional recovery after mistakes, and decision discipline may be visible to experienced coaches before they are fully reflected in simple numerical indicators.

Because the empirical stage of the project is not fully completed, this article does not claim confirmed statistical significance or definitive causal conclusions. Instead, it presents the methodological rationale in a transparent way. This is appropriate for a stage-based manuscript because the value of the paper lies in clarifying how the study is organised, why the training approach is theoretically justified, and how future analysis may test whether athletes with different anxiety profiles respond differently to simulated game training.

4. Results and discussion

Although final empirical results are not reported in this paper, the research framework already supports several important observations. First, the logic of simulated game training is strong because it addresses a widely observed practical problem in college basketball: athletes may know what to do technically, but fail to do it consistently in high-pressure situations. If training remains too stable and predictable, the transition from practice to competition is likely to remain weak. Under such conditions, technical competence may develop faster than competitive readiness.

Second, the perspective of sport anxiety helps explain why this gap persists. Anxiety does not simply make athletes nervous in a general sense. It can narrow attention, increase self-conscious monitoring, distort decision timing, and reduce confidence at precisely the moments when basketball requires rapid and coordinated action. In a sport defined by changing spatial relations and immediate interaction, even small losses of psychological control can affect passing decisions, defensive judgment, rebounding position, shot selection, and communication. The Sport Anxiety Scale-2 therefore contributes more than a measurement tool; it offers a structured way to interpret instability in competition through the dimensions of worry, somatic arousal, and concentration disruption (Smith et al., 2006).

Third, simulated game training is meaningful because it attempts to combine technical execution with psychological control instead of treating them as separate domains. Traditional skill drills may improve repetition quality, but they may not fully reproduce the emotional and tactical instability of games. By contrast, a training task that imposes score

deficits, time limits, confrontation, and tactical urgency requires athletes to preserve basketball execution while also regulating emotional pressure. This integrated demand is central to representative learning design, which argues that learning is strengthened when practice preserves the functional characteristics of the target environment (Pinder et al., 2011).

Fourth, the framework also aligns with transfer of training theory. A training programme should not be judged only by whether athletes perform well during practice; it should also be judged by whether those gains carry over into the target environment of official games. Baldwin and Ford (1988) emphasised that transfer depends on the design of training and the conditions under which learners apply what they have acquired. In basketball, training transfer is not only a matter of remembering a tactical pattern or refining a shooting motion. It also depends on whether the athlete can apply that pattern or motion while facing uncertainty, opposition, fatigue, and emotional stress. Simulated game training is valuable because it is specifically designed to improve that transfer process.

Fifth, the present framework is especially relevant for ordinary university teams. Elite programmes may have access to deeper staff support, more advanced analytics, sport psychologists, and more frequent competition opportunities. Many college teams do not. For them, a low-cost training model that uses ordinary court space, coach-designed scenarios, and structured pressure tasks may be more realistic and sustainable. Simulated game training does not require the complete replacement of routine practice. Rather, it can be integrated into existing training plans to increase the degree to which practice resembles competition.

At the same time, several limitations must be recognised. Because this is a stage-based manuscript, it does not present effect sizes, complete longitudinal comparisons, or subgroup analyses. The practical value of the framework should therefore not be confused with final empirical proof. In addition, the relationship between anxiety and performance is unlikely to be identical for all athletes. Some players may benefit from moderate arousal, whereas others may show more severe disruption at similar pressure levels. Future empirical work should therefore examine whether athletes with different anxiety profiles respond differently to simulated game training and whether some components of the intervention are more influential than others.

Another issue concerns performance measurement. Basketball performance is multidimensional. A player may improve tactical discipline and emotional recovery while showing only modest short-term change in points scored. Likewise, a player may produce acceptable statistics in one game while still showing unstable decision making under pressure. For this reason, the broader project proposes a combined measurement logic involving self-report, coach evaluation, and game-related indicators. This may provide a more balanced picture of whether simulated game training affects the athlete's ability to perform consistently in official competition.

Taken together, the current discussion suggests that training reform in college basketball should move toward a more integrated model. Technical skill remains essential, but the

conditions under which skill is practiced also matter. If athletes are trained only in low-pressure routines, then game expression may remain inconsistent. If, however, practice environments are designed to include representative pressure and decision demands, then athletes may become better prepared to convert training gains into competition behaviour.

A further point concerns the local relevance of the framework. Pingdingshan represents the type of university basketball environment in which performance problems are often discussed in practical terms but less often studied systematically. Teams may have committed coaches and motivated players, yet still face limits in staffing, competition density, recovery resources, and access to specialized psychological support. In such settings, a training model that is conceptually clear and operationally simple is particularly useful. Simulated game training can be adjusted to different team standards because pressure scenarios can be scaled in complexity and intensity. A coach may begin with time-restricted half-court tasks, then move toward repeated late-game scenarios, score-deficit challenges, or full-court confrontational sequences. This flexibility makes the model easier to incorporate into normal practice planning than highly specialized interventions that require separate personnel or equipment.

The framework also has implications for coaching evaluation. If coaches understand competition instability partly through the lens of anxiety and transfer, then post-game review may become more precise. Instead of treating every error as a purely technical failure, coaches can ask whether the error emerged from tactical misunderstanding, attentional narrowing, rushed decision making, or breakdown under time and score pressure. This does not reduce accountability; rather, it improves diagnostic quality. In the long term, a more precise diagnosis can support better task design, more appropriate feedback, and a stronger connection between daily practice and competition performance.

5. Conclusion and/or recommendations

This paper has examined sport anxiety and simulated game training as two closely related issues in understanding the competitive performance of college basketball players in Pingdingshan, China. The central argument is that the gap between training performance and game performance cannot be explained by technical factors alone. It is also shaped by the athlete's ability to regulate pressure, maintain attention, and execute tactics under unstable and demanding conditions.

From this perspective, sport anxiety is an important factor in explaining why some college basketball players fail to express their training level consistently in formal matches. Simulated game training offers a practical response because it introduces game-like demands into the training process. By exposing athletes to score pressure, time limits, tactical urgency, and realistic confrontation within practice, it may strengthen not only technical stability but also psychological adaptation and competitive readiness.

For ordinary university teams, this approach appears especially valuable because it is feasible, relatively low-cost, and compatible with routine coaching conditions. It does not

require the abandonment of traditional skill work. Instead, it calls for a more representative form of practice in which technical learning, tactical behaviour, and pressure regulation are trained together. Based on the present discussion, coaches should gradually incorporate structured game-like pressure into regular training, and future research should complete the empirical stage of the broader project through formal statistical analysis, subgroup comparison, and longer-term follow-up.

In summary, simulated game training should be understood not simply as a more intense form of practice, but as a more representative and transfer-oriented form of practice. Viewed through the lens of sport anxiety, its value lies in helping athletes become better prepared for the actual demands of competition.

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