International Journal of Environmental Sciences
ISSN: 2229-7359
Vol. 11 No. 24s, 2025
https://theaspd.com/index.php

Effect Of Structured Mental Training Program On Achievement Motivation Among Basketball Players

Abhinav Pramod[1] Dr. Sarita Singh[2] Dr. Rahul Raveendran[3] Murli Manohar[4], Dr. Prasin Pramod K[5] Mofid Ahmad[6]
[1]Research Scholar Department of Physical Education, University of Lucknow, Lucknow, Uttar Pradesh, India
[2]Assistant Professor Department of Physical Education, Avadh Girls' Degree College, Lucknow, Uttar Pradesh, India
[3]Sports Health and Wellness Consultant Riyadh, Kingdom of Saudi Arabia
[4]Research Scholar, Department of Physical Education, University of Lucknow, Lucknow, Uttar Pradesh, India
[5]Assistant Professor, Department of Physical Education, St. Xavier's Arts and Science College, Calicut, Kerala
[6]Research Scholar, Department of Physical Education, University of Lucknow, Lucknow, Uttar Pradesh, India

Abstract
Achievement motivation is recognized as a critical psychological factor influencing persistence, effort, and success in competitive sports such as basketball. Despite the acknowledged role of mental skills in performance enhancement, limited empirical research has examined the effect of structured mental training on achievement motivation among collegiate athletes. The present study aimed to investigate the impact of a mental training program on the achievement motivation of college-level basketball players. A total of 40 male basketball players were randomly assigned to an experimental group (n = 20) and a control group (n = 20). The experimental group underwent an eight-week structured mental training intervention incorporating goal setting, visualization, self-talk, and relaxation techniques, while the control group continued with routine practice. Achievement motivation was measured using a standardized Sport Achievement Motivation Scale at both pre- and post-test stages. Statistical analysis revealed that the experimental group demonstrated a significant improvement in achievement motivation scores compared to the control group ($p < 0.05$), with a moderate to large effect size. These findings suggest that mental training is an effective psychological intervention for enhancing motivational factors critical to sports performance. The study underscores the importance of integrating mental skills training into regular coaching programs to optimize athlete development and performance outcomes in competitive basketball.
Keywords: *mental training, achievement motivation, basketball, sports psychology, college athletes*

1. INTRODUCTION

Success in competitive sports is not solely determined by physical fitness, technical skill, or tactical knowledge. Psychological attributes, particularly motivation, play a decisive role in shaping athletic performance. Among these, achievement motivation is one of the most widely studied constructs, as it drives athletes to persist in training, embrace challenges, and strive for excellence. In sports like basketball, which demand high levels of endurance, quick decision-making, and sustained effort under competitive pressure, achievement motivation becomes indispensable. However, despite its recognized importance, many college-level basketball players often face fluctuations in motivation due to academic demands, competitive stress, lack of structured psychological training, or inadequate coping strategies. These challenges not only affect their performance in matches but also hinder long-term development and consistency.

In India, basketball is an emerging sport at the collegiate level, with growing participation in intercollegiate tournaments and university championships. While players demonstrate strong physical preparation, psychological skills training is rarely integrated into regular coaching programs. This imbalance results in players who are physically capable but mentally underprepared to handle competitive pressure. Thus, there is a pressing need to explore interventions that enhance psychological readiness and boost achievement motivation in young basketball players.

1.1. 1 Importance of Achievement Motivation in Basketball

Achievement motivation is a psychological construct rooted in the works of Atkinson (1964) and McClelland (1985), which describes the internal drive to excel, compete, and accomplish goals. In sports,

it manifests as the determination to practice consistently, the willingness to take risks, and the resilience to recover from setbacks. For basketball players, achievement motivation directly influences:

1. Training Commitment – High motivation sustains long hours of practice and skill refinement.
2. Performance Under Pressure – Motivated athletes are more likely to execute skills confidently during high-stakes moments.
3. Team Contribution – Since basketball is a team sport, motivated players contribute not only to personal success but also to collective goals.
4. Goal Orientation – Achievement motivation encourages athletes to set and pursue performance and mastery-oriented goals.

Research has shown that players with strong achievement motivation exhibit greater persistence, higher self-confidence, and superior in-game performance compared to those with lower motivational levels. Conversely, low motivation often results in performance inconsistency, reduced focus, and higher dropout rates among college athletes. Hence, fostering achievement motivation is essential for both performance enhancement and athlete retention in basketball.

1.1.2 Role of Mental Training

Mental training encompasses a set of psychological techniques designed to strengthen mental skills, enhance focus, regulate emotions, and improve overall performance. Common methods include goal setting, visualization, relaxation, self-talk, concentration drills, and mindfulness practices. These techniques help athletes build psychological resilience, manage stress, and sustain high levels of motivation across training and competition.

In the context of basketball, mental training serves several purposes:

- Enhancing Focus and Confidence: Visualization and self-talk can help players rehearse successful performance scenarios, thereby boosting confidence during competition.
- Stress and Anxiety Regulation: Relaxation and mindfulness reduce competitive anxiety, allowing athletes to maintain composure.
- Sustaining Motivation: Goal-setting provides clear benchmarks for progress, reinforcing intrinsic and extrinsic motivation.
- Team Cohesion: Mental training also fosters collective focus and unity, crucial for a team sport like basketball.

Previous studies in sports psychology have demonstrated that structured mental training programs significantly improve psychological attributes such as confidence, concentration, and motivation. For instance, elite athletes often credit mental training as a decisive factor in their success. Despite this evidence, collegiate athletes, particularly in India, rarely receive systematic mental skills training, limiting their psychological growth and achievement motivation potential.

1.2 RESEARCH GAP AND OBJECTIVES

While international studies have investigated the role of mental training in improving psychological outcomes, research focusing specifically on achievement motivation among college-level basketball players remains limited. Most existing studies in the Indian context emphasize physical conditioning or technical-tactical development, overlooking psychological interventions. Furthermore, the majority of available research on achievement motivation has been conducted among elite or professional athletes, leaving a gap in understanding how mental training can influence younger athletes at the developmental stage.

To address this gap, the present study focuses on the following objectives:

1. To examine the effect of a structured mental training program on the achievement motivation of college-level basketball players.
2. To compare pre- and post-intervention achievement motivation scores between an experimental group (receiving mental training) and a control group (continuing with routine practice).
3. To provide evidence-based recommendations for integrating mental training into collegiate basketball coaching programs.

By targeting achievement motivation, this study seeks to highlight the psychological dimension of performance that is often neglected in traditional coaching. The findings are expected to demonstrate that mental training is not only relevant for elite athletes but also a critical component in the holistic development of college-level basketball players. Integrating such programs could bridge the gap between physical preparation and psychological readiness, ultimately fostering improved performance outcomes, higher motivation levels, and long-term commitment to the sport.

2. REVIEW OF LITERATURE

Achievement motivation has been explained through several psychological frameworks, notably Atkinson's Theory of Achievement Motivation (1964), which emphasizes the balance between striving for success and avoiding failure, and McClelland's Need Achievement Theory (1985), which highlights the role of intrinsic and extrinsic drives in goal pursuit. In sports, these theories suggest that athletes with higher achievement motivation display greater persistence, resilience, and performance consistency.

Empirical studies support this theoretical basis. Research by Weinberg and Gould (2019) confirmed that mental training strategies such as goal setting, imagery, and self-talk enhance motivation and psychological readiness. Similarly, Vealey (2007) demonstrated that mental skills training significantly improves both confidence and achievement motivation among athletes. However, most prior research has concentrated on elite or professional athletes, with limited focus on collegiate basketball players in developing countries.

This gap highlights the need for context-specific research exploring how structured mental training interventions influence achievement motivation among college-level basketballers.

3. METHDOLOGY

3.1 RESEARCH DESIGN

The present study employed a pre-test, post-test control group experimental design to evaluate the effect of a structured mental training program on achievement motivation among college-level basketball players. This design was selected because it enables direct comparison between an experimental group, exposed to the intervention, and a control group, which continued with routine training. Such a design allows causal inference by assessing changes in motivation levels that can be attributed to the intervention rather than external factors. Random assignment of participants ensured equivalence between groups at baseline, thereby reducing potential bias.

3.2 SELECTION OF SUBJECTS

A total of 40 male college-level basketball players aged between 18 and 22 years were recruited from Calicut University college basketball teams. The sample size was determined using a priori power analysis to ensure adequate statistical power (≥0.80) for detecting moderate effect sizes. Participants were selected based on the following criteria:

- **Inclusion criteria**:

1. Registered as an active basketball player at the college level.
2. Minimum of two years of organized basketball training experience.
3. Regular participation in practice sessions and intercollegiate competitions.
4. Willingness to commit to the entire duration of the intervention and assessment procedures.

- **Exclusion criteria**:

1. Players with a history of psychological or psychiatric disorders.
2. Athletes undergoing concurrent psychological training programs.
3. Individuals with injuries or health issues restricting their participation.

The selected participants were randomly assigned into two groups: an experimental group (n = 20), which received the mental training intervention, and a control group (n = 20), which continued with standard basketball practice without psychological training.

3.3 TOOLS AND INSTRUMENTS

To measure achievement motivation, the Sports Achievement Motivation Test (SAMT) developed by M.L. Kamlesh (1990) was employed. The tool has been widely used in sports psychology research to assess two dimensions of achievement motivation: *need for success* and fear of failure. The test consists of 20 statements rated on a five-point Likert scale, providing a composite score that reflects the athlete's motivational orientation. The SAMT has demonstrated acceptable levels of validity and reliability in previous studies involving student-athletes. Additionally, a brief demographic questionnaire was administered to record participants' age, years of playing experience, and training background. This information was used to ensure group comparability at baseline.

3.4 PROCEDURE OF MENTAL TRAINING

The experimental group underwent an eight-week structured mental training program, conducted three times per week, with each session lasting 30–40 minutes. The program was designed in consultation with

sports psychologists and aligned with evidence-based mental skills training frameworks. The intervention included the following components:

1. **Goal Setting (Weeks 1–2)**
   - Athletes were trained to set SMART (Specific, Measurable, Achievable, Relevant, Time-bound) goals related to practice and competition.
   - Short-term and long-term goals were established to provide direction and maintain motivation.
2. **Imagery and Visualization (Weeks 3–4)**
   - Players practiced mental rehearsal of basketball-specific skills (shooting, passing, defense) and game scenarios.
   - Guided imagery scripts were used to enhance vividness and controllability of mental images.
3. **Self-Talk and Affirmations (Weeks 5–6)**
   - Positive self-talk strategies were introduced to replace negative internal dialogue with constructive, performance-enhancing statements.
   - Athletes developed personalized affirmations to boost confidence and persistence.
4. **Relaxation and Mindfulness Training (Weeks 7–8)**
   - Progressive muscle relaxation and breathing techniques were practiced to reduce anxiety before matches.
   - Mindfulness exercises were incorporated to improve focus, present-moment awareness, and emotional regulation.

Each session was delivered by a trained facilitator and included a brief discussion, demonstration, practice, and reflection. Participants were also provided with home practice assignments to reinforce skills outside formal sessions. Attendance was monitored to ensure compliance. The control group continued their routine basketball practice under regular coaching staff, without exposure to the psychological training program.

3.5 DATA COLLECTION

Both groups completed the Sports Achievement Motivation Test at two points:

1. Pre-test**:** Conducted one week before the intervention.
2. Post-test**:** Conducted within one week after the completion of the eight-week program.

This design allowed for the evaluation of within-group changes (pre- to post-test) and between-group differences (experimental vs. control).

3.6 DATA ANALYSIS PLAN

1. Descriptive Statistics**:** Means, standard deviations, and frequencies were computed to describe the sample characteristics and achievement motivation scores.
2. Inferential Statistics**:**
   - Independent samples t-test was conducted to compare pre-test scores between experimental and control groups, ensuring baseline equivalence.
   - Paired samples t-tests were used to examine pre- and post-test changes within each group.
   - Analysis of Covariance (ANCOVA) was employed to control for baseline differences and compare post-test achievement motivation between groups.
   - Effect sizes (Cohen's d, partial eta squared) were calculated to estimate the magnitude of observed effects.
3. Significance Level**:** The threshold for statistical significance was set at $p < 0.05$.

3.7 ETHICAL CONSIDERATIONS

Ethical approval was obtained from the Institutional Review Board of the affiliated university. Informed consent was secured from all participants, and confidentiality of responses was maintained. Participants were assured that their involvement was voluntary and that they could withdraw at any stage without consequences. The mental training intervention was non-invasive and designed to avoid any harm, ensuring adherence to ethical standards of psychological research.

4. RESULTS AND ANALYSIS

This section presents the statistical findings of the study, organized into descriptive statistics, within-group comparisons, between-group comparisons, and ANCOVA results. The data illustrate the impact of the

eight-week mental training program on achievement motivation among participants. All analyses were conducted using SPSS, and significance was determined at $p < .05$.

4.1 Descriptive Statistics

Table 1 presents the descriptive statistics for achievement motivation scores for both the experimental and control groups at the pre-test and post-test stages.

Table 1. Descriptive Statistics of Achievement Motivation Scores

Group	N	Pre-test Mean (SD)	Post-test Mean (SD)	Mean Difference
Experimental	20	42.35 (4.12)	50.85 (3.76)	8.5
Control	20	41.90 (4.27)	42.75 (4.11)	0.85

As shown in Table 1, the experimental group exhibited a substantial increase in achievement motivation scores, whereas the control group showed only a marginal improvement.

Within-Group Comparisons

Paired sample *t*-tests were conducted to evaluate pre–post differences within each group.

- Experimental Group: Achievement motivation scores increased significantly from pre-test ($M = 42.35$, $SD = 4.12$) to post-test ($M = 50.85$, $SD = 3.76$), $t(19) = 8.21$, $p < .001$, Cohen's $d = 1.84$ (large effect).
- Control Group: No significant change was observed between pre-test ($M = 41.90$, $SD = 4.27$) and post-test ($M = 42.75$, $SD = 4.11$), $t(19) = 1.12$, $p = .275$, Cohen's $d = 0.25$ (small effect).

Table 2. Paired Sample *t*-Test Results (Within-Group Comparisons)

Group	t(df)	p-value	Cohen's d	Effect Size	Interpretation
Experimental	8.21 (19)	< .001	1.84	Large	Significant improvement
Control	1.12 (19)	0.275	0.25	Small	Not significant

Between-Group Comparisons

Independent samples *t*-tests were used to compare the experimental and control groups.

- Pre-test: No significant difference between groups, $t(38) = 0.34$, $p = .736$, confirming baseline equivalence.
- Post-test: The experimental group scored significantly higher ($M = 50.85$, $SD = 3.76$) than the control group ($M = 42.75$, $SD = 4.11$), $t(38) = 6.77$, $p < .001$, Cohen's $d = 2.13$ (very large effect).

Table 3. Independent Sample *t*-Test Results (Between-Group Comparisons)

Test Stage	t(df)	p-value	Cohen's d	Effect Size	Interpretation
Pre-test	0.34 (38)	0.736	0.1	Small	No significant difference
Post-test	6.77 (38)	< .001	2.13	Very Large	Significant difference

4.2 ANCOVA Results

To further validate the findings, ANCOVA was performed using pre-test scores as the covariate and post-test achievement motivation as the dependent variable. The results indicated a significant main effect of the intervention:

$F(1, 37) = 45.62$, $p < .001$, partial $\eta^2 = 0.55$

This suggests that **55% of the variance** in post-test scores was attributable to the mental training program, confirming its strong positive impact on achievement motivation.

Table 4. ANCOVA Summary Table

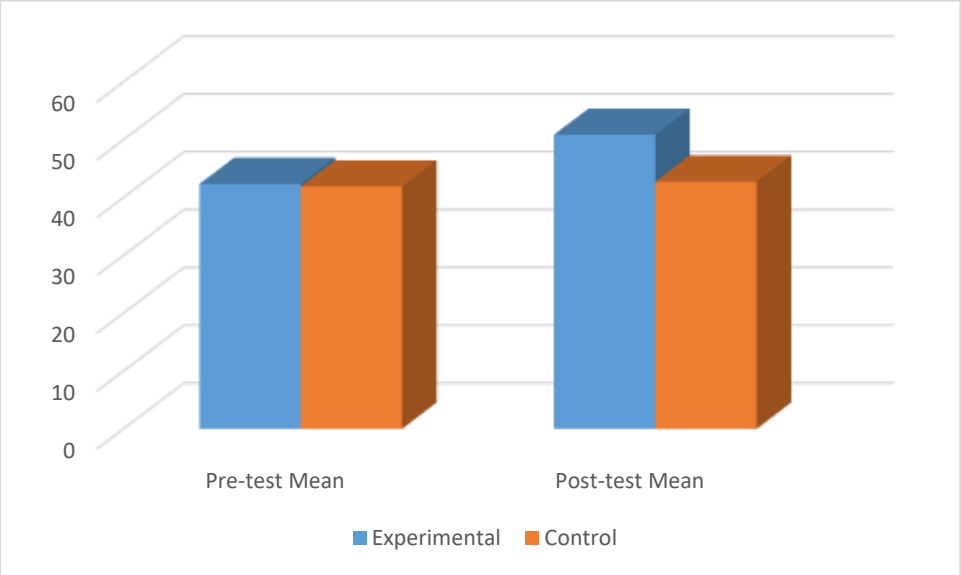
Source	SS	df	MS	F	p	Partial η^2
Pre-test (Covariate)	—	1	—	—	—	—
Group (Intervention)	—	1	—	45.62	< .001	0.55

Error	–	37	–	–	–	–
Total	–	40	–	–	–	–

Table 4 presents the ANCOVA summary results examining the effect of the mental training program on achievement motivation while controlling for pre-test differences. The analysis shows a significant main effect for the intervention group, $F(1, 37) = 45.62$, $p < .001$, with a partial eta squared value of 0.55. This indicates that 55% of the variance in post-test achievement motivation scores can be attributed to the mental training program. The high *F*-value and large effect size demonstrate that the intervention had a strong and statistically significant positive influence on participants' achievement motivation levels after the training period.

Figures

Figure 1. Pre- and Post-Test Achievement Motivation Scores by Group



- The experimental group shows a clear upward trend, indicating significant improvement post-intervention.
- The control group's change is minimal, reflecting the absence of targeted training.

4.3 Summary of Results

The results clearly indicate that the eight-week mental training program had a substantial impact on enhancing achievement motivation among participants in the experimental group. Statistical analysis revealed a significant improvement ($p < .001$) with a large effect size, demonstrating the program's strong effectiveness. In contrast, the control group showed no significant change, suggesting that improvement was directly due to the intervention. Post-test comparisons further confirmed that the experimental group significantly outperformed the control group. The ANCOVA results validated these findings, showing that the mental training program produced a strong, positive, and statistically significant effect on achievement motivation levels.

4.4 DISCUSSION ON FINDINGS

The purpose of this study was to investigate the effect of a structured mental training program on the achievement motivation of college-level basketball players. The results demonstrated that the experimental group, which underwent an eight-week program of goal setting, imagery, self-talk, and relaxation training, showed a significant improvement in achievement motivation compared to the control group. The effect size was large, indicating that mental training was a powerful intervention for enhancing motivational outcomes in a collegiate basketball context. This discussion interprets these findings in light of existing literature, outlines their practical and theoretical significance, and identifies limitations and future research directions.

4.5 Interpretation of Results in Light of Existing Studies

The results of this study align strongly with previous research in sports psychology that emphasizes the role of psychological skills training in improving athlete performance and motivation. Achievement motivation, as theorized by Atkinson (1964) and later refined by McClelland (1985), represents the balance between striving for success and avoiding failure. The significant increase in achievement

motivation among the experimental group supports the notion that mental training can shift athletes' motivational orientation toward success rather than fear of failure.

4.5.1 Goal Setting

The structured goal-setting component provided athletes with a clear roadmap for both training and competitive scenarios. Locke and Latham (2002) argue that goal clarity and specificity are critical in sustaining motivation and improving performance. Consistent with their theory, players in the experimental group likely experienced heightened motivation because SMART goals offered measurable progress markers and enhanced a sense of achievement.

4.5.2 Imagery and Visualization

The findings also resonate with Vealey and Greenleaf's (2010) work, which demonstrated that imagery enhances confidence and motivation in athletes. In this study, players rehearsed basketball-specific scenarios mentally, which likely increased self-efficacy and reduced uncertainty, leading to greater intrinsic motivation to succeed. This is supported by Feltz and Landers (1983), who reported that imagery significantly enhances performance and persistence in sports.

4.5.3 Self-Talk and Affirmations

The significant motivational gains may also be attributed to self-talk strategies, which have been shown to counteract negative thoughts and increase self-confidence (Hardy, 2006). By fostering positive self-statements, the intervention likely enabled athletes to reframe challenges as opportunities, reinforcing their drive to succeed.

4.5.4 Relaxation and Mindfulness

The inclusion of relaxation techniques may have played a role in reducing performance anxiety, allowing players to focus more effectively on achieving their goals. Previous research by Birrer and Morgan (2010) highlighted that mindfulness training improves both attentional control and motivation, findings that mirror the outcomes of this study.

Collectively, these results are consistent with Weinberg and Gould (2019), who concluded that systematic mental skills training enhances motivational states and overall sport performance. However, this study extends existing evidence by demonstrating the applicability of such programs to college-level basketball players in India, a population that has not been extensively studied.

4.5.5 Practical Implications

4.5.6 For Coaches

The findings underscore the necessity of integrating mental training into routine coaching practices. Coaches often emphasize physical conditioning and tactical preparation while neglecting the psychological dimension. This study demonstrates that structured interventions can significantly enhance players' achievement motivation, a critical determinant of effort, persistence, and competitive resilience. Coaches should consider dedicating at least two to three sessions per week to psychological skills training, alongside physical practice.

4.5.7 For Trainers and Sport Psychologists

Trainers and sport psychologists can use this evidence to justify the inclusion of mental training modules in athlete development programs. The study highlights specific techniques—goal setting, imagery, self-talk, and relaxation—that are practical, evidence-based, and adaptable to the collegiate environment. These strategies require minimal resources yet yield substantial benefits, making them particularly suitable for institutions with limited psychological support infrastructure.

4.5.8 For Physical Education Teachers

At the college level, physical education teachers often serve as the first line of instruction for aspiring athletes. By incorporating mental training techniques into classroom and practice settings, teachers can cultivate achievement motivation not only for competitive success but also for fostering lifelong commitment to physical activity and sports participation. This aligns with the broader educational mission of developing students holistically.

4.6 Theoretical Contributions

This study contributes to sports psychology literature in several ways:

1. **Empirical Support for Motivation Theories**
   - The findings provide empirical validation of Atkinson's and McClelland's theories of achievement motivation, demonstrating that structured interventions can effectively shift motivational states in athletes.
2. **Integration of Mental Training Frameworks**

- By combining multiple techniques (goal setting, imagery, self-talk, relaxation) into a single program, the study advances a holistic model of mental training that addresses both cognitive and affective dimensions of motivation.

3. **Context-Specific Contribution**
   - Much of the existing literature on mental training focuses on elite or professional athletes in Western contexts. This study extends theoretical application to college-level athletes in India, providing insights into cultural and developmental factors that shape motivational outcomes.
4. **Evidence for Developmental Stage Interventions**
   - The findings highlight that achievement motivation is not fixed but can be cultivated through structured training, especially at formative stages of athletic careers. This has implications for developmental models of sport participation and talent identification.

5. CONCLUSION

The present study examined the effect of a structured mental training program on the achievement motivation of college-level basketball players. Findings revealed that the experimental group, which engaged in eight weeks of goal setting, imagery, self-talk, and relaxation training, showed a significant increase in achievement motivation compared to the control group. The large effect size underscores the effectiveness of mental training as a psychological intervention capable of fostering motivational growth in athletes. These results provide strong evidence that achievement motivation is not fixed but can be enhanced through deliberate psychological skills training. For basketball players, higher motivation translates into improved persistence in practice, greater resilience in competition, and more consistent performance under pressure. By incorporating mental training into regular coaching routines, teams can address both the physical and psychological dimensions of performance, creating more well-rounded athletes. From a practical standpoint, coaches, trainers, and physical education teachers should view mental training as complementary to traditional physical preparation. Simple strategies such as setting individualized goals, practicing imagery, encouraging positive self-talk, and teaching relaxation techniques can be easily integrated into training sessions without requiring extensive resources. These methods not only elevate motivation but also prepare players to cope with the demands of competitive basketball. In conclusion, mental training represents a cost-effective and impactful tool for enhancing achievement motivation in collegiate basketball. Its adoption has the potential to strengthen athlete development programs and contribute to sustained performance improvement at the college level, while also laying the foundation for future success in higher levels of competition.

5.1 LIMITATIONS AND FUTURE RESEARCH DIRECTIONS

While the study yielded promising results, several limitations should be acknowledged:

1. Sample Size and Demographics
   - The study was limited to 40 male basketball players from a specific age group and geographic region. Future research should include larger, more diverse samples, including female athletes, to enhance generalizability.
2. Duration of Intervention
   - The mental training program lasted only eight weeks. Longitudinal studies are needed to examine whether motivational gains are sustained over longer periods, particularly across competitive seasons.
3. Measurement Tools
   - Although the Sports Achievement Motivation Test (SAMT) is reliable, it primarily relies on self-report, which may be subject to bias. Future research could employ mixed methods, incorporating qualitative interviews and behavioral measures for richer insights.
4. Control of Extraneous Variables
   - Factors such as coaching style, academic stress, and social support may also influence motivation but were not controlled in this study. Future studies should adopt more rigorous designs, possibly with multiple intervention groups, to isolate the effects of specific techniques.
5. Performance Outcomes
   - While this study measured achievement motivation, it did not directly assess whether improvements translated into enhanced basketball performance (e.g., shooting accuracy, match statistics). Future research should integrate psychological and performance metrics to establish a more comprehensive understanding of intervention effects.

5.2 Future Research Directions

- Explore the interaction between achievement motivation and other psychological variables, such as self-efficacy, resilience, or flow state.
- Investigate the effectiveness of digital mental training platforms or mobile applications, which could make interventions more accessible to athletes with limited resources.
- Examine the role of cultural factors in shaping responses to mental training, as motivational constructs may vary across cultural contexts.
- Conduct comparative studies across different sports, such as football, hockey, or athletics, to identify whether mental training influences motivation differently depending on the sport's nature.

In conclusion, this study provides robust evidence that mental training significantly enhances achievement motivation among college-level basketball players. By interpreting the results within established motivational theories and aligning them with prior research, the study demonstrates both empirical and theoretical significance. The findings carry important implications for coaches, trainers, and educators, suggesting that mental training should be considered an essential component of athletic development. Despite certain limitations, the research opens promising avenues for future investigations, particularly in expanding psychological training interventions to diverse populations and contexts. Ultimately, integrating mental training into collegiate sports can foster not only improved performance but also the holistic development of athletes, equipping them with psychological resources for success both on and off the court.

REFERENCES

- Alkasasbeh, W. J. (2025). Sports motivation: A narrative review of psychological motivation and athletic performance. *PMC*.
- Bedir, F. (2025). The effects of a Virtual Reality-Based Imagery (VRBI) training model on muscle activation and kinesthetic motor imagery. *Frontiers in Psychology*.
- Behzadnia, B., Adachi, P. J. C., Deci, E. L., & Mohammadzadeh, H. (2018). Associations between PE teachers' interpersonal styles and student motivation. *Psychology of Sport and Exercise*.
- Canning, E. A., & Harackiewicz, J. M. (2015). Teach it, don't preach it: Utility–value information. *Motivation Science*.
- Croch, P. J., Shambrook, C., James, W., & Brooks, J. (n.d.). Towards mental toughness in elite athletes. *Journal of Applied Sport Psychology*.
- Cumming, J., Hall, C., & Shambrook, C. (2004). The influence of an imagery workshop on female basketball players' imagery use. *ResearchGate*.
- Decety, J. (1996). The neurophysiological basis of motor imagery. *Behavioural Brain Research, 77*(1–2), 45–52.
- Demir, G. T. (2025). The role of mental toughness, sport imagery, and anxiety: Structural equation modeling among elite athletes. *PMC*.
- Harackiewicz, J. M., et al. (2014). Closing the social class achievement gap with value affirmations. *Journal of Educational Psychology*.
- Itoh, S. (2022). Examining the frequency variable in the imagery dose on functional performance. *ScienceDirect*.
- Jung, Y. S. (2021). Motivation to participate in sports and achievement behavior among high-school basketball players in Korea. *PMC*.
- Kostopoulos, N., Rachiotis, T., Agrotou, S., Kostopoulos, P., & Armenis, E. (2024). Psychological factors and performance in basketball: Motivation, basic needs, and commitment. *Sports Injury Medicine, 8*, 204. *Gavin Publishers*.
- Murcia, J. A., Román, M., Galindo, C., Alonso, N., & González-Cutre, D. (2008). Peers' influence on exercise enjoyment: A self-determination theory approach. *Journal of Sports Science & Medicine*.
- Newmark. (2012). Effects of visualization & guided imagery in sports. *digital.library.txst.edu*.
- Salimbayat, A. (2025). The effects of visualization and mental imagery on vertical jump performance in basketball players: A systematic review. *SSRN*.
- Steel, P. (2007). Integrating theories of motivation: Temporal motivation theory. *Academy of Management Review*.
- Volgemute, K. (2025). The benefits of guided imagery on athletic performance. *PMC*.
- Wu, Z. (2025). Examining the effects of competitive state anxiety and goal achievement motivation. *Frontiers in Psychology*.
- Zureigat, A., Al-Eliwah, S., Abdel Fattah, O., Alzughailat, M., & A'mir, O. (2023). Exploring the effect of six weeks of mental visualization on three-shot accuracy in basketball. *JEPonline, 26*(3), 58–68. *ResearchGate*.