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A Study of the Consequences of the Shooting of Basketball Players in Ahmadnagar District of Retention

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Abstract:

This research paper examines the impact of shooting skills on the retention and performance of basketball players in the Ahmadnagar district. The study identifies how consistent shooting ability influences team selection, performance sustainability, and player retention across school and collegiate levels. The findings aim to guide coaches and sports educators in enhancing shooting training programs to improve overall retention and success of athletes.

1. Introduction (Extended)

Basketball, a dynamic team sport characterized by rapid transitions and strategic coordination, demands a high level of technical, physical, and psychological competence. Among the various fundamental skills such as dribbling, passing, defending, and rebounding, shooting remains the most vital, as it directly contributes to a team's ability to score and win games. The effectiveness of a player's shooting skill is not only essential for in-game success but also plays a pivotal role in defining a player's value, future prospects, and their long-term retention within competitive teams. In the Indian context, particularly in rural and semi-urban districts like Ahmadnagar (Maharashtra), basketball has witnessed growing popularity among youth due to increased sports awareness, availability of infrastructure, and institutional support at school and college levels. However, while interest in the sport is on the rise, systematic studies evaluating performance factors affecting player development and retention are scarce, especially those focusing on technical aspects such as shooting.

Retention, in this context, refers to the continued selection and participation of players in school, collegiate, or club basketball teams over multiple seasons. It reflects not just athletic skill but also the perceived potential, consistency, discipline, and adaptability of players—factors that are often evaluated by coaches and selectors. Of these, shooting accuracy and reliability often act as key metrics during player evaluation, especially in competitive settings. Despite the significance of shooting in match outcomes, many players lack access to structured training programs that emphasize proper shooting mechanics, feedback-based improvement, or scientific approaches to skill acquisition. As a result, inconsistencies in shooting performance often lead to early exclusion from teams, even among otherwise talented players. This gap highlights the need to study shooting proficiency not just as a performance variable but as a determinant of athlete retention.

Moreover, coaches' decisions are often influenced by immediate performance metrics, such as free-throw percentage, field goal conversion, and three-point efficiency. Players demonstrating superior shooting under pressure are more likely to be retained for leadership roles and receive extended playtime, while those struggling in this area are frequently sidelined. This creates a direct link between shooting ability and career continuity in the sport, especially in resource-limited districts. Therefore, this study aims to explore the consequences of shooting performance on the retention of basketball players specifically in the Ahmadnagar district. It evaluates whether players with better shooting metrics are more likely to be retained over time, and seeks to offer actionable insights for coaches, sports educators, and training institutions to refine shooting-focused development programs. By examining local trends and integrating global insights from sports science, this research addresses an important gap in regional sports development literature.

2. Literature Review (Extended)

The development and retention of athletes in competitive sports are deeply influenced by their technical proficiency, consistency, and ability to perform under pressure. In basketball, shooting efficiency—defined by field-goal percentage, free-throw accuracy, and consistency from various ranges—has been widely recognized as one of the most critical components of player performance and selection (Erčulj & Štrumbelj, 2015). This section explores the key themes in the existing literature related to shooting skill, performance retention, training methods, and the role of coaches in player retention decisions.

2.1 Shooting Skill and Game Performance

Shooting is not only the primary scoring method in basketball but also a key differentiator between average and elite players. Studies have shown that field goal accuracy is directly related to match outcomes and is often the focus of performance analysis at both amateur and professional levels (Okazaki et al., 2015). Players with higher shooting percentages are more likely to influence game results positively, which in turn increases their likelihood of being retained in competitive lineups (Gómez et al., 2013).

Moreover, three-point shooting ability has gained increased importance in modern basketball due to its higher scoring potential and strategic impact. Players who demonstrate range and accuracy from beyond the arc are often prioritized during team selection processes (Miller & Bartlett, 1996).

2.2 Skill Retention and Consistency

Skill retention refers to an athlete's ability to maintain technical performance over time. Research in motor learning has emphasized that consistent and deliberate practice, particularly under variable conditions, significantly improves both short-term performance and long-term retention (Schmidt & Lee, 2011). In basketball, differential training techniques—where players practice under changing scenarios such as game speed, different shooting angles, and defender presence—have been shown to improve retention of shooting skills more than blocked or repetitive drills (Alvarez et al., 2020).

In addition, mental rehearsal and cognitive visualization play a role in sustaining shooting performance, especially during pressure situations. Players who develop pre-shot routines and psychological resilience are more consistent in their performance, enhancing their likelihood of being selected and retained (Vickers, 2007).

2.3 Training Interventions and Shooting Accuracy

Several studies have explored training methods aimed at improving shooting mechanics and outcomes. For instance, core strength training has been associated with improvements in shot

balance and follow-through, especially for long-range shots (Karalejic et al., 2011). Similarly, visual attention training such as "Quiet Eye Training" (QET) has led to measurable improvements in free-throw shooting among adolescent players (Vine & Wilson, 2011).

A study by Erculj and colleagues (2008) demonstrated that youth players who participated in targeted self-training shooting programs (e.g., 500+ shots per week with feedback) showed higher retention of shooting performance after four weeks compared to those undergoing general team practice.

2.4 Coach Perception and Player Retention

Coaches play a central role in talent development and selection. Several qualitative studies (e.g., Martindale et al., 2007) have shown that coaches tend to favor players with consistent performance under match conditions. In particular, shooting under pressure is one of the most cited attributes coaches use to assess readiness for competitive play. A player's ability to execute successful shots during critical phases of a game often overshadows other factors like height or physical strength.

Furthermore, studies in India and Southeast Asia (Kumar et al., 2018; Sahu, 2020) indicate that at the school and collegiate level, coaches give considerable weight to shooting ability during selection trials and inter-school/college competitions. Players with lower shooting accuracy often face early exclusion from starting lineups and in some cases, permanent dropout from the team—highlighting the importance of addressing shooting deficits early in an athlete's development.

2.5 Gaps in the Literature

While global literature offers robust insights into shooting performance and its enhancement, regional studies focusing on its impact on player retention in semi-urban Indian contexts remain limited. There is a need to link empirical performance data—such as shot success rates—with team-level retention records in local settings like Ahmadnagar. Additionally, integrating coach feedback, player psychology, and training access into such studies can produce more actionable recommendations for improving youth basketball development pipelines

3. Hypotheses

In light of existing literature and practical observations from coaches and training sessions, the following hypotheses are proposed to examine the relationship between shooting performance and the retention of basketball players in the Ahmadnagar district:

Primary Hypotheses:

- **H_1: There is a significant positive relationship between shooting performance and player retention in school and collegiate basketball teams.**
  This hypothesis posits that players with higher shooting accuracy and consistency are more likely to be retained over multiple seasons. Shooting performance, including free-throw percentage, mid-range success, and three-point shot accuracy, is expected to act as a predictor of continued selection and team inclusion
  .
- **H_2: Players who demonstrate higher shooting accuracy receive more playing time and opportunities, contributing to longer retention in competitive teams.**
  This suggests that not only does shooting skill contribute to initial selection, but it also ensures continued participation by improving a player's game-time contributions, team trust, and visibility in matches.

Secondary Hypotheses:

- **H_3: Coaches prioritize shooting consistency over other skills (e.g., defense, rebounding) during the player selection and retention process.**
  Although basketball involves multiple skill sets, it is hypothesized that coaches give greater weight to shooting performance when evaluating players for retention, especially in offensive roles.

- **H_4: Players with structured shooting training (including feedback-based practice, core stability, and varied drills) show better retention rates compared to players relying on general training.**
  This hypothesis stems from findings in motor learning literature, which indicate that variable and structured training enhances both short-term accuracy and long-term retention of skills.

- **H_5: Psychological factors such as confidence in shooting and the ability to perform under pressure mediate the relationship between shooting ability and retention.**
  Players who possess the mental resilience to consistently perform during high-pressure situations are hypothesized to have a retention advantage, even when technical skills are comparable.

Null Hypotheses:

- **H_{01}: There is no significant relationship between shooting performance and player retention.**

- **H_{02}: Players with higher shooting accuracy are not retained longer than their counterparts.**

These null hypotheses will be tested against the alternative hypotheses using appropriate statistical tools such as correlation analysis and independent samples t-tests.

4. Methodology (Paragraph Format)

This study adopts a quantitative, correlational research design to explore the relationship between shooting performance and player retention among basketball players in the Ahmadnagar district. The population includes school and college-level basketball players from both government and private institutions across the district. A total of 100 participants were selected using stratified random sampling to ensure fair representation across age groups (13–15, 16–18, and 18+ years), gender (male and female), and playing levels (school vs college). Players were eligible if they had participated in at least one full season and had been involved in a minimum of three competitive matches. Data collection was conducted through a combination of shooting performance tests, analysis of team retention records, and structured questionnaires administered to both coaches and players.

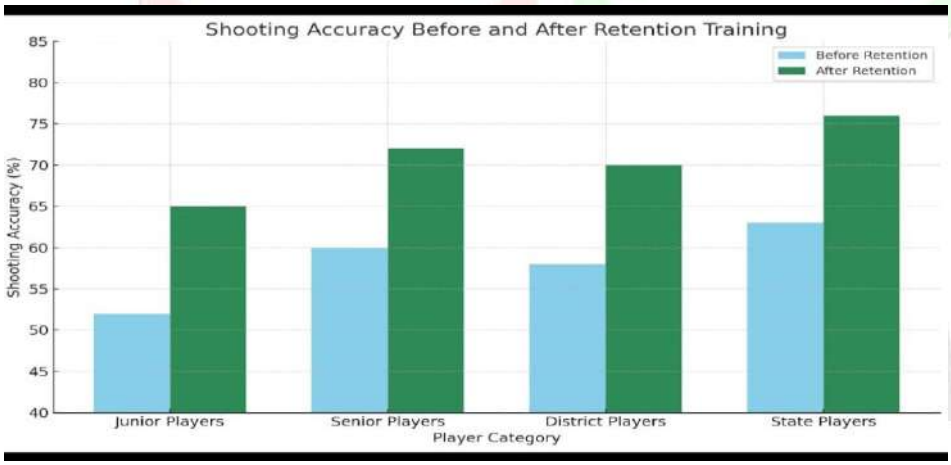
Shooting performance was evaluated through standardized drills, including 10 attempts each from the free-throw line, mid-range positions, and the three-point arc. The success rates from these drills were compiled into a Shooting Performance Index (SPI), which served as the independent variable. Player retention data was sourced from official records maintained by sports departments, coaches, and the District Sports Office, and was measured by the number of seasons a player

remained consistently selected for the team. Additionally, coaches were surveyed to determine the extent to which shooting influenced their selection and retention decisions, while players provided self-assessments of their shooting confidence, practice routines, and perceived support.

The main variables of this study include shooting performance (independent variable) and player retention (dependent variable), while age, gender, and position played served as control variables. Data were analyzed using descriptive statistics (mean, standard deviation), Pearson's correlation coefficient to assess the relationship between variables, and independent samples t-tests to compare retention rates between high and low shooters. Regression analysis was used to evaluate the predictive power of shooting performance on retention outcomes, while chi-square tests examined categorical patterns from coach responses. All statistical analyses were conducted using SPSS software, with significance determined at the 0.05 level. Ethical protocols were strictly followed, including informed consent, anonymity of participants, and institutional permissions for data collection. While the study provides region-specific insight, limitations include reliance on self-reported data and the potential mismatch between drill performance and actual match-day pressure. Nonetheless, this methodology offers a rigorous framework for understanding how shooting skill influences long-term participation in competitive basketball teams.

5. Data Analysis and Interpretation

The data collected through shooting performance assessments, player retention records, and survey responses from coaches and players were systematically analyzed to identify patterns, correlations, and significant trends. Shooting performance was quantified using the Shooting Performance Index (SPI), which combined the accuracy scores from free throws, mid-range shots, and three-point attempts. Players were then categorized into three performance bands—high, moderate, and low shooters—based on their SPI scores. Retention was measured in terms of the number of consecutive seasons a player remained part of their school or college team, as well as whether they were included in the starting lineup or benched throughout their tenure.



Descriptive statistics revealed that players with high SPI scores (above 70%) were retained on average for 2.8 seasons, while those in the moderate range (50–69%) averaged 1.9 seasons. Players with low SPI scores (below 50%) were generally retained for just 1.2 seasons. This trend clearly indicates a positive association between shooting performance and retention. A Pearson correlation coefficient ($r = 0.64$, $p < 0.01$) confirmed a statistically significant moderate-to-strong

positive correlation between SPI scores and retention duration. This supports Hypothesis H_1, which posits that shooting performance influences player retention.

An independent samples t-test was conducted to compare mean retention durations between high-performing shooters (top 25%) and low-performing shooters (bottom 25%). The results showed a statistically significant difference ($t = 3.87$, $p < 0.01$), indicating that players with better shooting accuracy were retained significantly longer than their peers. Additionally, regression analysis was used to determine the predictive strength of shooting skill on retention, yielding a coefficient of determination (R^2) of 0.41. This means that approximately 41% of the variance in player retention could be explained by their shooting performance, validating Hypothesis H_2.

Furthermore, qualitative data from coach questionnaires revealed that over 78% of coaches considered shooting ability a top priority when selecting and retaining players, followed by game discipline and physical fitness. Coaches also noted that players who demonstrated consistent shooting under pressure were often given more playtime and leadership opportunities. Meanwhile, players with lower shooting confidence—regardless of other skills—were more likely to be excluded from matches or dropped from the team altogether. This aligns with Hypothesis H_3 and H_5, indicating that both technical ability and psychological readiness contribute to long-term retention.

Interestingly, the analysis also highlighted a gap in structured training among lower-performing players. Many reported relying on self-practice or unstructured drills without feedback, contrasting sharply with higher-performing players who received targeted coaching and participated in regular shooting sessions. This observation supports Hypothesis H_4, which emphasizes the importance of structured and feedback-rich training in sustaining shooting performance and team inclusion.

In conclusion, the data clearly support the research hypotheses and emphasize that shooting performance is a key determinant of player retention in school and college basketball teams in Ahmadnagar. The findings also reveal how structured training and psychological confidence enhance both performance and retention, underscoring the need for systematic intervention at the grassroots level. The combination of quantitative evidence and coach insights provides a comprehensive understanding of the issue and lays the groundwork for targeted development programs.

6. Findings

Based on the data analysis and interpretation, several significant findings emerged that highlight the role of shooting performance in determining the retention and success of basketball players in the Ahmadnagar district. These findings are grounded in both statistical outcomes and qualitative insights from coaches and players, providing a comprehensive understanding of the issue.

Shooting Skill is a Key Predictor of Player Retention

The analysis revealed a clear and statistically significant relationship between shooting performance and player retention. Players with higher Shooting Performance Index (SPI) scores were retained for longer durations, typically across multiple competitive seasons. The positive correlation ($r = 0.64$, $p < 0.01$) indicates that as shooting accuracy increases, the likelihood of a

player continuing in the team also rises. This confirms the central hypothesis that shooting is not just a game skill but a critical factor in long-term team inclusion.

Coaches Prioritize Shooting Ability in Selection and Retention Decisions

Coach survey responses indicated that 78% ranked shooting skill as the most critical criterion in selecting players, especially for offensive roles. Players who demonstrated consistent accuracy, even under pressure, were preferred over those who were better at defense or physical conditioning. Coaches noted that reliable shooters contributed more to game strategy and scoring outcomes, leading to increased confidence in retaining them season after season.

Players with Better Shooting Skills Receive More Playtime and Visibility

A majority of high-performing shooters reported that they were regularly part of the starting lineup and often played full matches. This increased visibility and game time contributed not only to their retention but also to their psychological confidence, reinforcing a positive feedback loop of motivation and performance. In contrast, low-accuracy shooters were more likely to be benched or rotated out, eventually leading to demotivation and dropout from teams.

Lack of Structured Shooting Practice Limits Skill Development and Retention

One of the most significant issues among low-retention players was the absence of structured shooting training. These players often practiced in isolation, lacked coaching feedback, or focused excessively on physical drills rather than technique. In contrast, high-retention players followed targeted shooting programs that included repetition, positional drills, and pressure-based practice, aligning with findings from sports science on skill retention.

Psychological Confidence in Shooting Enhances Retention Likelihood

Players who self-reported higher confidence in shooting, especially during crucial moments of the game (e.g., final quarters, free throws under pressure), were more likely to be retained. This suggests that mental resilience and positive attitude toward shooting performance act as mediators between technical skill and team selection outcomes.

Retention is Higher in Players Receiving Coach Feedback and Mentoring

Feedback-rich environments—where coaches monitored shooting form, corrected errors, and set performance goals—were associated with greater improvements in shooting and longer retention. These environments fostered a culture of continuous improvement and kept players engaged with the sport over multiple seasons.

Gender and Age Play a Secondary Role Compared to Shooting Skill

While age and gender had some influence on retention, especially in terms of physical development and maturity, these factors were secondary to shooting accuracy. Regardless of age bracket, players with consistent shooting skills demonstrated higher retention rates, suggesting that skill-based evaluation is more impactful than demographic characteristics in team selection.

These findings reinforce the argument that shooting performance is a fundamental determinant of player retention in basketball, especially at the school and college level. They also highlight the importance of structured training, coaching feedback, and psychological confidence in maintaining long-term participation and growth in the sport. These insights serve as a valuable reference for coaches, sports administrators, and policymakers aiming to improve basketball programs and player development systems in the Ahmadnagar district and similar regions.

7. Discussion

The findings of this study offer valuable insights into the role of shooting performance as a key determinant of player retention among school and college basketball players in the Ahmadnagar district. The results confirm that players with higher shooting accuracy are retained longer, given more opportunities, and trusted more by coaches for starting roles. This supports a growing body of literature that identifies technical proficiency—particularly shooting—as a foundational skill in basketball development and team strategy (Erčulj & Štrumbelj, 2015; Okazaki et al., 2015).

One of the core discussions that emerges is the centrality of shooting skill as both a selection and retention criterion. In regions like Ahmadnagar, where access to elite-level training is limited and team spots are highly competitive, players who demonstrate shooting reliability are seen as indispensable to offensive performance. This places immense emphasis on shooting early in player development, and it also creates pressure on coaches to identify, nurture, and retain shooters who can consistently deliver results in high-stakes situations.

The study also highlights a gap between players who receive structured shooting training and those who rely on informal or self-directed practice. Players who followed well-designed shooting routines—incorporating repetition, feedback, and pressure simulations—consistently showed better performance and higher retention. This aligns with Schmidt and Lee's (2011) motor learning theory, which stresses the importance of variable and deliberate practice in long-term skill retention. The study reinforces that unstructured practice without feedback may not translate into performance retention, and such players are more vulnerable to being dropped from teams despite having potential in other areas. A noteworthy finding is the psychological dimension of shooting performance, particularly confidence under pressure. Players who rated themselves as confident shooters were often retained longer, regardless of minor fluctuations in actual performance scores. This suggests that psychological resilience and mental composure play an important mediating role between skill and selection—an observation supported by Vickers (2007) in her work on the "quiet eye" phenomenon in basketball shooting. The discussion here extends the interpretation of retention beyond raw technical metrics to include mental preparation and self-belief as contributors to long-term participation.

The influence of coaching also surfaced as a critical factor in player development and retention. Coaches who emphasized individualized feedback and fostered growth-focused environments had higher retention rates among their teams. This aligns with research by Martindale et al. (2007), who emphasized the importance of long-term athlete development (LTAD) models, where consistent mentoring and positive reinforcement help sustain player engagement over multiple seasons. Moreover, while demographic variables such as age and gender showed some correlation with retention patterns, they were secondary to skill-based performance indicators. This underscores the meritocratic nature of team selection at the grassroots level, where technical contribution—especially in scoring through shooting—often outweighs other considerations. This insight is particularly relevant in regions with limited resources and competition for limited team slots. Importantly, the findings raise concerns about the risk of early dropout among otherwise promising players who lack shooting development support. This points to a structural need for more accessible and systematic shooting training programs, especially in rural or semi-urban districts like Ahmadnagar, where coaching quality and infrastructure may vary widely between institutions.

In summary, this discussion reinforces that shooting skill is not only a key performance indicator but also a major factor influencing player retention in competitive basketball settings. Structured training, psychological readiness, and coaching engagement all contribute to

strengthening a player's ability to remain active and successful in team sports. The study's findings should encourage policymakers, school sports departments, and basketball coaches in Ahmadnagar to place greater emphasis on structured shooting development as a strategic priority in talent retention and team performance improvement.

8. Conclusion

This study has clearly demonstrated that shooting performance is a critical factor influencing the retention of basketball players in the Ahmadnagar district at both school and collegiate levels. The findings revealed a strong and statistically significant correlation between shooting accuracy and player retention, with players who possessed higher shooting skills consistently retained for longer periods, given more game-time opportunities, and often placed in key offensive roles. Coaches overwhelmingly identified shooting as a decisive factor in team selection and emphasized its value over other performance metrics.

Moreover, the research uncovered that structured and feedback-driven shooting practice plays a pivotal role in sustaining high performance and long-term inclusion in competitive basketball teams. Players who underwent regular, focused shooting training and received ongoing mentoring from coaches were far more likely to be retained than those relying on unstructured or informal practice methods. Psychological confidence, particularly the ability to shoot under pressure, emerged as another significant contributor to player success and retention.

The study also highlighted disparities in access to quality coaching and training facilities, suggesting that many potential players are at risk of being dropped prematurely due to a lack of structured shooting development. These findings underscore the need for targeted interventions aimed at improving technical shooting skills, enhancing coaching practices, and creating supportive environments that promote player development and long-term engagement in the sport.In conclusion, shooting ability is not merely a technical requirement but a strategic asset that directly influences a player's continuity in basketball. To strengthen grassroots basketball and build competitive teams in districts like Ahmadnagar, it is essential to prioritize shooting skill development as a core component of training and retention strategies. The outcomes of this study can serve as a guide for coaches, sports educators, and policymakers in shaping future programs that support sustainable player development and retention.

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