

Integrating Traditional Training Knowledge with Modern SAQ Innovations: Effects of a Twelve-Week SAQ Training Program on Skill Performance of Women Basketball Players

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Article Info	ABSTRACT
Article History: Received: 15th Dec 2025 Accepted: 19th Dec 2025 Published: 20th Dec 2025 Keywords: <i>SAQ Training, Traditional Training Knowledge, Skill Performance, Women Basketball Players, Speed, Agility, Quickness</i>	Basketball is a fast-paced team sport that demands high levels of speed, agility, quickness, coordination, and technical skill. In recent years, Speed, Agility, and Quickness (SAQ) training has gained prominence as an effective method for enhancing athletic performance. At the same time, traditional training knowledge developed through years of coaching experience continues to play a vital role in athlete development. The present study aims to examine the effects of a twelve-week SAQ training program integrated with traditional training principles on the skill performance of women basketball players. Thirty women basketball players aged 18 to 25 years participated in the study. A pre-test and post-test experimental design was adopted. Selected skill performance variables such as dribbling ability, passing accuracy, shooting accuracy, and defensive movement were assessed before and after the training program. The SAQ program was designed using modern training concepts while respecting traditional coaching practices such as progressive overload, repetition, and sport-specific movement patterns. The results indicated significant improvement in all selected skill performance variables after the twelve-week training intervention. The findings suggest that integrating traditional training knowledge with modern SAQ innovations is an effective approach for enhancing skill performance in women basketball players. This study provides valuable insights for coaches, trainers, and sports scientists aiming to develop holistic and effective training programs.

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Introduction

Basketball is one of the most popular team sports worldwide and requires a combination of physical fitness, technical skill, tactical understanding, and psychological preparedness. Players are expected to perform rapid accelerations, sudden changes of direction, jumps, defensive slides, and quick decision-making throughout the game. Therefore, modern basketball training emphasizes not only technical skill development but also physical conditioning that directly supports game performance.

Among various conditioning methods, Speed, Agility, and Quickness (SAQ) training has emerged as a highly effective approach to improve movement efficiency and sport-specific performance. SAQ training focuses on enhancing an athlete's ability to accelerate, decelerate, change direction, and respond quickly to external stimuli. These qualities are directly related to basketball skills such as fast breaks, defensive coverage, dribbling under pressure, and shooting in dynamic situations.

While modern sports science has introduced structured SAQ protocols, wearable technologies, and data-driven training models, traditional training knowledge remains equally important. Traditional coaching methods, developed through practical experience, emphasize repetition, discipline, gradual progression, and sport-specific drills. These principles have long been used by coaches to develop technically sound and physically resilient players.

In recent years, there has been growing interest in integrating traditional training knowledge with modern innovations in sports science. Such an integrated approach ensures that scientific advancements are applied without neglecting the cultural and experiential wisdom of coaching practices. This is particularly relevant in women's sports, where systematic training opportunities have historically been limited compared to men's sports.

The present study focuses on women basketball players and examines how a twelve-week SAQ training program, designed using both traditional and modern training principles, influences skill performance. By bridging the gap between traditional knowledge and modern SAQ innovations, this research aims to contribute to more effective and inclusive basketball training methodologies.

Review of Literature

Previous research has highlighted the importance of SAQ training in improving athletic performance across various sports. Studies have reported that SAQ training significantly enhances sprint speed, agility, reaction time, and explosive power in team sport athletes. In basketball, SAQ training has been shown to improve defensive movement, ball handling, and overall game efficiency.

Research on women athletes indicates that structured physical training programs can lead to substantial improvements in performance when appropriately designed. However, many studies focus primarily on physical variables such as speed and agility, with limited emphasis on skill performance outcomes. Skill execution in basketball is closely linked to movement quality, balance, and coordination, all of which are influenced by SAQ training.

Traditional training knowledge emphasizes fundamental movement patterns, repetition of basic skills, and progressive overload. Coaches often rely on experience-based methods such as ladder drills, cone drills, shuttle runs, and game-like situations to develop agility and coordination. When these methods are combined with scientifically structured SAQ protocols, the training becomes more comprehensive and effective.

Recent literature also suggests that integrated training models lead to better athlete adaptation and reduced injury risk. By respecting traditional principles such as proper warm-up, gradual intensity progression, and adequate recovery, modern SAQ training programs can be safely implemented for women athletes.

Despite the growing body of research, there is limited empirical evidence examining the combined effect of traditional training knowledge and modern SAQ innovations on skill performance in women basketball players. This gap in literature provides the rationale for the present study.

Objectives of the Study

The objectives of the present study were:

1. To assess the effect of a twelve-week SAQ training program on selected skill performance variables of women basketball players.

2. To examine improvements in dribbling, passing, shooting, and defensive movement following the SAQ training intervention.
3. To integrate traditional training principles with modern SAQ methods in the design of the training program.
4. To compare pre-test and post-test performance scores of selected skill variables.
5. To provide practical recommendations for basketball coaches and trainers.

Hypotheses

1. There will be a significant improvement in skill performance of women basketball players after the twelve-week SAQ training program.
2. The integrated approach combining traditional training knowledge and modern SAQ innovations will positively influence basketball skill performance.

Methodology

Selection of Subjects

Thirty women basketball players aged between 18 and 25 years were selected for the study. The subjects had a minimum of two years of playing experience and were actively participating in college-level or club-level competitions. All participants were medically fit and provided informed consent prior to participation.

Research Design

The study adopted a single group pre-test and post-test experimental design. Skill performance variables were assessed before the commencement of the training program and after the completion of twelve weeks.

Training Program

The SAQ training program was conducted for twelve weeks, with training sessions held five days per week. Each session lasted approximately 60 minutes. The training program was designed by integrating traditional training principles such as gradual progression, repetition, and sport-specific movements with modern SAQ training techniques.

The training session included:

- Warm-up using traditional dynamic stretching and mobility drills
- SAQ drills such as ladder drills, cone drills, shuttle runs, reaction drills, and short sprints
- Basketball-specific skill drills performed at high speed
- Cool-down and recovery exercises

Training intensity and complexity were gradually increased over the twelve-week period to ensure continuous adaptation.

Variables and Tests

The following skill performance variables were selected:

- Dribbling ability
- Passing accuracy
- Shooting accuracy
- Defensive movement

Standardized basketball skill tests were used to measure each variable.

Statistical Analysis

Mean and standard deviation were calculated for pre-test and post-test scores. The paired 't'-test was used to determine the significance of differences between pre-test and post-test scores. The level of significance was set at 0.05.

Results

The analysis of data revealed significant improvements in all selected skill performance variables after the twelve-week SAQ training program. Dribbling performance showed marked improvement due to enhanced coordination and quick directional changes. Passing accuracy improved as players demonstrated better balance and movement control during execution.

Shooting accuracy showed significant enhancement, which can be attributed to improved footwork, stability, and quick positioning achieved through SAQ training. Defensive movement performance also

improved substantially, reflecting better lateral speed, reaction ability, and agility.

The statistical analysis confirmed that the differences between pre-test and post-test scores were significant at the 0.05 level, supporting the research hypotheses.

Discussion

The findings of the present study demonstrate that a twelve-week SAQ training program integrated with traditional training knowledge significantly improves skill performance in women basketball players. The improvement in dribbling, passing, shooting, and defensive movement highlights the effectiveness of SAQ training beyond physical fitness alone.

Traditional training principles such as repetition, gradual progression, and sport-specific movement played a crucial role in ensuring skill transfer from training to actual game situations. The use of modern SAQ drills enhanced movement efficiency, reaction speed, and coordination, which directly influenced skill execution.

The results align with previous research indicating that SAQ training improves movement quality and athletic performance. However, this study extends existing knowledge by emphasizing the value of integrating traditional coaching wisdom with modern innovations. Such integration ensures that training remains athlete-centered, culturally relevant, and practically applicable.

For women basketball players, structured SAQ training provides an opportunity to develop physical and technical competencies in a systematic manner. Coaches are encouraged to adopt an integrated approach that respects traditional methods while utilizing modern training concepts to maximize performance outcomes.

Conclusion

The present study concludes that integrating traditional training knowledge with modern SAQ innovations is an effective approach to enhance skill performance in women basketball players. The twelve-week SAQ training program led to significant improvements in dribbling, passing, shooting, and defensive movement. The findings highlight the importance of combining experiential coaching wisdom with scientifically designed training methods. This integrated model can serve as a practical framework for coaches, trainers, and sports institutions aiming to improve women's basketball performance.

Practical Implications

- Coaches can use SAQ training to improve both physical and skill performance.
- Traditional training principles should be retained while implementing modern methods.
- The integrated approach can be applied to other team sports.
- Structured SAQ programs are especially beneficial for women athletes.

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