RECOVERY OF BASKETBALL PLAYERS AFTER OFFENSIVE TECHNIQUE TRAINING

RECUPERAÇÃO DE JOGADORES DE BASQUETE APÓS TREINAMENTO DE TÉCNICA OFENSIVA

RECUPERACIÓN DE JUGADORES DE BALONCESTO TRAS EL ENTRENAMIENTO DE TÉCNICA OFENSIVA

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Zhanqi Wang[1]
(Physical Education Professional)

1. College of Physical Education, Luoyang Institute of Science and Technology, Luoyang, Henan, China.

Correspondence:
Zhanqi Wang
Luoyang, Henan, China, 471023.
wangzhanqi3595@163.com

ABSTRACT

Introduction: The shot accuracy and standardization in basketball games are closely related to the quality of the team's scoring. The percentage of throws is fundamental to know if the basketing movement can be correctly detected and judged. In traditional basketball, players' skills are composed of specific movements. With the gradual development of these technical movements, coaches should pay more attention to each athlete so that their technical problems can be identified and worked on early. Objective: This article discusses how basketball players move, catch the ball on the court, and execute the shot to the basket. Methods: We randomly and voluntarily selected 90 basketball players by sampling. The independent variables, biomarkers, and kinetic patterns were properly cataloged and processed. The main test items included body, lower limb, and groin circumference. Finally, mathematical statistics were used to analyze the correlation of each index. The relationship between basketball players' movement posture and basic offensive techniques was analyzed. Results: In basketball, basic attack techniques in multifactorial training remarkably influences their score. The role of score recovery in basketball is significant. Conclusion: The quality of basketing action is directly related to the technical level of offensive basketball. A variety of ball training can improve the skill level of the basketball player. ***Level of evidence II; Therapeutic studies - investigation of treatment outcomes.***

Keywords: Basketball; Athletes; Sports; Biomechanical Phenomena.

RESUMO

Introdução: A precisão de lance e a padronização nos jogos de basquete estão intimamente relacionadas à qualidade da pontuação do time. A porcentagem de lances é fundamental para saber se o movimento de encestamento pode ser corretamente detectado e julgado. No basquete tradicional, as habilidades dos jogadores são compostas por movimentos específicos e, com o desenvolvimento gradual desses movimentos técnicos, os treinadores devem prestar maior atenção a cada atleta para que seus problemas técnicos sejam identificados e trabalhados precocemente. Objetivo: Este artigo discute como os jogadores de basquete se movem, pegam a bola no confronto e executam o lance para a cesta. Métodos: Selecionou-se aleatória e voluntariamente 90 jogadores de basquete por amostragem. As variáveis independentes, biomarcadores e padrões cinéticos foram devidamente catalogados e processados. Os principais itens de teste incluem perímetro corporal, perímetro de membros inferiores e virilha. Por fim, utilizou-se o método de estatística matemática para analisar a correlação de cada índice. Paralelamente, a relação entre a postura de movimento dos jogadores de basquete e as técnicas ofensivas básicas foram analisadas. Resultados: O treinamento multifatorial na técnica de ataque básico do basquete tem uma influência notável em sua pontuação de ataque. O papel da recuperação de pontuações no basquete é significativo. Conclusão: A qualidade da ação de encestamento está diretamente relacionada ao nível técnico do basquete ofensivo. Uma variedade de treinamento com bola pode melhorar o nível de habilidade do jogador de basquete. ***Nível de evidência II; Estudos terapêuticos - investigação dos resultados do tratamento.***

Descritores: *Basquetebol; Atletas; Esportes; Fenômenos Biomecânicos.*

RESUMEN

Introducción: El acierto en el tiro y la normalización en los partidos de baloncesto están estrechamente relacionados con la calidad de la puntuación del equipo. El porcentaje de lanzamientos es fundamental para saber si se puede detectar y juzgar correctamente el movimiento de enceste. En el baloncesto tradicional, las habilidades de los jugadores están compuestas por movimientos específicos y, con el desarrollo gradual de estos movimientos técnicos, los entrenadores deben prestar más atención a cada deportista para que sus problemas técnicos sean identificados y trabajados a tiempo. Objetivo: Este artículo analiza cómo se mueven los jugadores de baloncesto, cómo cogen el balón en el enfrentamiento y cómo ejecutan el tiro a canasta. Métodos: Se seleccionaron 90 jugadores de baloncesto de forma aleatoria y voluntaria por muestreo. Las variables independientes, los biomarcadores y los patrones cinéticos fueron debidamente catalogados y procesados. Los principales elementos de la prueba son la circunferencia corporal, la circunferencia de las extremidades inferiores y la circunferencia de la ingle. Por último, se utilizó el método de estadística matemática para analizar la correlación de cada índice. Paralelamente, se analizó la relación entre la postura de movimiento de los jugadores de baloncesto y las técnicas ofensivas básicas. Resultados: El entrenamiento multifactorial en la técnica de ataque básica del baloncesto tiene una notable influencia en su puntuación de ataque.

El papel de la recuperación del marcador en el baloncesto es importante. Conclusión: La calidad de la acción de encestar está directamente relacionada con el nivel técnico del baloncesto ofensivo. Una variedad de entrenamiento con balón puede mejorar el nivel de habilidad del jugador de baloncesto. ***Nivel de evidencia II; Estudios terapéuticos - investigación de los resultados del tratamiento.***

Descriptore: *Baloncesto; Atletas; Deportes; Fenómenos Biomecánicos.*

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INTRODUCTION

The quality of a single technology directly affects the application of the entire technology system. The pros and cons of individual technologies directly affect the strain rate of the entire technical system. Athletes can decompose technical movements to practice in the initial stage of technical movements. When an athlete repeats an action, he must remember the essentials of the action.[1] This allows athletes to develop the correct technique in their daily training. With the gradual development of technical movements, coaches should pay attention to the technical movements of each athlete. This allows the athlete's technical problems to be identified and improved promptly. Confrontation is an essential feature of modern basketball. With the enhancement of defense awareness and ability of basketball players, players have more and more physical contact, and the physical confrontation becomes more and more intense. This requires players to use offensive techniques in the game. This paper expands the application connotation of attack technology to the level of balance. This article analyzes body balance and its use in offensive and defensive techniques.[2] This article helps us understand and grasp the inherent laws of basketball offensive techniques through the research on the body balance of basketball offensive techniques. This allows for more rational and practical use of offensive techniques.

METHOD

Research objects

This paper takes 90 basketball players as the research object.[3] No significant differences were in age, physical fitness, and training time (P>0.05). This paper uses SPSS. 17 for statistical analysis.

Judgment of basketball player's shooting technique

The point matrix M of basketball is a symmetric matrix, a standard sport. The elements of the matrix are denoted $h_{ij} = N(a_i, b_j) = \left\| a_i - b_j \right.$. In the three-dimensional nonlinear space mapping, this paper uses the feature space cost function to sum the unknown transformation parameters a, b, c and obtain the optimal solution.

$$\begin{bmatrix} x & 0 \\ y & 1 \\ z & 1 \end{bmatrix} = \begin{bmatrix} 1 & P \\ P^T & 1 \end{bmatrix} \begin{bmatrix} \alpha & \beta & \lambda \\ a & b & c \end{bmatrix} \quad (1)$$

This paper obtains the boundary characteristics of grid points by TPS transformation.

$$\min \varepsilon(W) = \sum_{i=1}^{N} \left| \frac{y_i - \sum_{j=1}^{k} \omega x_{ij}}{\sum_{j=1}^{k} \omega x_{ij}} \right|^2 \quad (2)$$

Where x_{ij} is the vertices of the feature space mesh model of basketball. ω is a difference in weight. In this paper, a triangulation model is established to obtain the normalized characteristics of basketball shooting. This paper obtains a local covariance matrix by using the distribution probability of the basketball's position in the air. This paper combines three formulas and three models.[4] At the same time, this paper uses the edge contour viewpoint to segment so that the eigenvalues of the three-dimensional space pixels of the basketball shooting motion are reduced.

Testing of variables and data

Independent variables and tests

This paper takes three sports as the research object. This paper measures its independent variables.[5] Its contents include circles around the body, one leg, and throwing the ball under the crotch.

Factors and tests

In this paper, three basic offensive techniques are used as dependent variables. The content includes 5-point speed shooting, left-handed figure-eight dribbling, and passing between the moves.[6] The results of each test have reached a high degree of validity through the examination of experts.

There is no need for a code of ethics for this type of study.

RESULTS

Table 1 shows basic statistics describing variables. The first thing this paper extracts in the three regression analyses is the body circle.[7] Its regression equation R=0.41~0.45. The determination factor R2 is 0.17~0.21. A basketball player has two main jobs in doing this: One is to wrap around a body part in a horizontal plane. Another way is to adjust the height of the position constantly. More muscles are involved in complex coordination exercises.

The regression coefficient (R = 0.51) and the decision factor (R2 = 0.27) indicate the role of body wrap and crotch drop for both variables in 5-point speed shooting. The first is the rotational movement of the torso, and the second is the movement of the crotch.[8] The 5-point speed shot requires control of the ball. The regression factor R=0.52 and the decision factor R2=0.26 illustrate the effect of the two variables, body circle, and single-leg circle, on the results of the figure-eight dribble test. The single-leg circle training requires the athlete to have good coordination and footwork on both legs simultaneously.

DISCUSSION

Basketball offensive technology comprehensively applies harsh effects, practical actions, and various actions. A single technical action is essential in a technical combination.[9] The application of each

Table 1. Basic Statistics.

Variable	Average	Standard deviation	Maximum value	Minimum
Body circle	40.94	5.06	56.56	30.30
Single double leg circle	37.28	7.05	50.50	9.09
Crotch throw	41.80	11.00	60.60	10.10
5-point speed shot	31.09	5.93	42.42	14.14
Figure 8 Dribble	15.16	2.05	20.77	13.12
Pass on the go	92.69	11.71	122.21	63.63

technology has a particular sequence, direction, route, timing, and other requirements. Its action structure is adapted to the basic principles of human motion anatomy and biomechanics. These principles and needs can help maintain body balance and use techniques correctly. Only by genuinely mastering a single technique can the technical movements be used more rationally. In basketball, most of the technical movements of athletes use combination techniques. The balance of the body is a prerequisite and guarantee for applying combined technology.[10] Only skilled use of standardized and continuous techniques can quickly, accurately, and reasonably attack techniques.

In modern basketball, players face fierce confrontation with or without the ball. Confrontation is an essential feature of modern basketball. Basketball is characterized by the competition of time and space.[11] To maintain a good body balance, master the initiative, and improve the technical level in the confrontation, the athlete must be aware of confrontation. The second is that athletes must have good physical fitness. In modern basketball, the fast, fast and fast confrontation of offense and defense all require athletes to have muscular endurance and strength. Having good physical ability can make athletes always full of life on the field. Only good strength can keep the body balanced during high-intensity exercise. In this way, the athlete can maintain the stability and continuity of the movement.

The ball-holding breakthrough technique is an aggressive, offensive technique in which athletes quickly use their pace and dribbling techniques to surpass the opponent. The timing of the breakthrough and the choice of the path are the keys. The athlete's preparation stance before the break and the balance during the break will also significantly impact the technique's performance. Before breaking through, the athlete must maintain a static body balance and sufficient flexibility to move forward.[12] This requires a lower center of gravity and a larger forward-leaning angle. After the breakthrough, the athlete needs to adjust the center of gravity for different environments. If the athlete can break through the layup, he can continue moving forward and maintaining dynamic balance. Athletes should keep their body weight on a support surface when making a drive or pull-up jump shot.

Shooting is the only way to score in basketball. Most of the shots are in the matchup. Athletes shooting and dunking on the move should ensure the body's stability and ensure a sense of balance in the air and the control of the body. Keep your body still before taking off, such as spot jumpers, turnaround jumpers, dribble pull-up jumpers, catch-and-pull jumpers, etc. The athlete's toes should point toward the rim to place their body on the support surface. When taking off, the athlete exerts a force on his feet, straightens his knees, stretches his abdomen, and raises his head.[13] After the start, the athlete's feet are naturally relaxed, and his eyes are fixed on the basket. When landing, the athlete's legs should be shoulder-width or slightly wider, knees bent and center of gravity lowered. The athlete bends his arms to maintain balance. During a pitcher's defender collision, the pitcher should actively perform strength training under prescribed conditions. Athletes maintain their balance during the game to ensure the pitcher's hit rate.

Basketball has high demands on players' technical movements. Athletes should strengthen the training of technical movements to achieve the purpose of cultivating basketball awareness. In the game, athletes should not only have standard technical movements but also have a sense of basketball. Athletes can combine their skills and techniques at the right moment. To achieve this goal, the athlete must master the technical movements proficiently. Only in this way can the awareness of basketball be reflected the most significant extent.[14] Athletes combine basketball skills with basketball awareness every time they attack or defend. Passing the ball, shooting, screening, and running on the court are all inseparable from the awareness and skills of basketball. Simply mastering basketball skills is not enough. Players should choose the most suitable technical movements according to their basketball awareness. Athletes notice flexibility and flexibility in basketball techniques. Only in this way can athletes better play their strengths. If only a few skill moves are mastered, it is difficult for athletes to achieve in actual combat. Athletes should strengthen their training of the ability to adapt to technical movements to improve their basketball awareness. In long-term practice, athletes can gradually master the flexible use of technical movements and achieve the purpose of improving basketball awareness.

CONCLUSION

Athletes should use ball exercises in basketball training. This shows that in-situ ball training has a particular effect on students' mastering basic basketball skills. In-situ sports have a moderate to a significant impact on basketball's basic attacking skills. In the three basketball techniques, the body circle significantly affects passing, transporting, and throwing. Among them, the throwing of the crotch has a particular effect on shooting and passing. One-footed circles will affect passing and dribbling. In the stepwise regression analysis, the first thing this paper should extract is the surrounding of the human body. This shows that basketball technology is very complex in practice. It involves multiple movements and multiple muscle groups. This sports training highlights the importance of body coordination.

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