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Does the success rate of offensive plays in 3x3 basketball vary with the type of offense and age/sex categories?

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INTRODUCTION:

3x3 is a new basketball discipline that has become one of the Olympic sports since the Tokyo 2020 Olympic Games. While the number of studies on 3x3 basketball has been growing in recent years [1-4], research in this field is still in its infancy. More in-depth studies will help to develop this relatively new sport. The purpose of this study was to compare the success rate of offensive plays in 3x3 basketball by the type of offense and age/sex categories.

METHODS:

This study analyzed the FIBA 3x3 World Cup 2019 and the FIBA 3x3 Under-18 World Cup 2019. Each play was coded by the researcher from game footage using a notational analysis method. All offensive plays were classified as a transition offensive play (TOP), a check-ball offensive play (CBOP), or an offensive rebound offensive play (OROP). An offensive play that resulted in a successful field goal or earned a free throw was considered successful. A Pearson's chi-squared test was used to compare the success rates of the offensive plays. Multiplicity was adjusted by the Benjamini & Hochberg method to maintain a significance level of $P < 0.05$.

RESULTS:

In all four categories (senior men, senior women, under-18 men, and under-18 women), TOP occurred with the highest frequency (55.1-57.5% of the totals), followed by CBOP (28.1-31.2%) and OROP (11.9-14.7%). The success rate of OROP (39.2-49.2%) was significantly higher ($P < 0.05$; effect size = 0.07-0.14) than that of the TOP (28.5-36.4%) and CBOP (32.1-35.0%) in all four categories. While the success rate of CBOP did not differ among the four categories, the success rate of TOP was significantly higher ($P < 0.05$; effect size = 0.04-0.09) in the men's tournament (34.6-36.4%) than in the women's tournament (28.5-31.1%). The success rate of OROP was significantly lower ($P < 0.05$; effect size = 0.08-0.10) in the under-18 women's tournament (39.2%) than in the other three categories' tournaments (47.3-49.2%).

CONCLUSION:

Increasing the success rate of TOP is essential for winning a game because TOP accounts for more than half of the total offensive plays. The success rate of TOP was lower in the women's tournament than in the men's tournament; however, the lack of sex differences in the success rate of CBOP suggests that there is still room for women to increase the success rate of TOP.

1. Ortega et al. (2021); 2. Boros et al. (2022); 3. Figueira et al. (2022); 4. Ferioli et al. (2023)

Topic: Coaching

Presentation Oral

