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Performance Analysis of Womens Epee in the 2017-2019 World Fencing Championships

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INTRODUCTION:

Various factors can impact how fencers score, including the use of techniques in different locations of the piste, and different rounds and status (leading, even, or losing) of the match. Performance analysis in sports, especially on elite players, could provide insights on how to win a match as well as how to design the training to improve the performance.

METHODS:

This study examined the performance of elite female epee fencers during the matches from top 16 to final in 2017-2019 world fencing championships (including 1840 scoring events from 90 fencers in 45 matches) using notational analysis on videos downloaded from official website of the International Fencing Federation (FIE) in YouTube. Three- or two-way repeated measures ANOVAs were used to investigate the effects of aforementioned factors and their interactions, and three- or two- way mixed-design ANOVAs were used to further examine these effects of winners and losers respectively.

RESULTS:

Fencers scored the most at the 2nd round during the match, replicating the previous findings. This might reflect that they became more aggressive only after they were familiar with the profile of the opponent that they obtained from the 1st round. When the winner was Whereas in the end area, attack, counterattack, and defensed were all used more often than other skills. Conversely, there were no specific techniques used at any area of the piste for loser no matter in leading or losing status. These results show that winners had their own strategies to use specific techniques on specific location of the piste for specific situations to achieve the final victory. leading in the match, the piste of her own side was the main area she moved and scored. Specifically, in the central area, attack was used more often than defense and other skills. In the middle area, attack and counterattack were used more often than defense and other skills.

In sum, our findings provide empirical evidence of how elite fencers manipulate their techniques on the piste to create and maintain leading status till the final victory. Such information could be useful to coaches for designing training program and giving suggestions to fencers during the match.

Topic: Statistics and Analyses

Presentation Poster

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