

MEN VS. WOMEN'S SOCCER - A COMPARATIVE GAME ANALYSIS OF TWO WORLD CHAMPIONSHIPS

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INTRODUCTION

In 2006 the International Federation of Association Football (FIFA) counted 265 million soccer players worldwide. Ten percent of these players are women and the number of registered female players has increased by over 50% during the last 6 years [1]. These data show that women soccer becomes increasingly popular. With help of a video analysis of the men's world cup 2002 and the women's world cup 2003 this study explores whether there are different movement patterns, individual ball actions, and game strategies in women's as compared to men's soccer. If this is the case, gender specific footwear features may be desirable.

METHODS

The finals, semi-finals and quarter-finals were analyzed from video recordings of the soccer world championships of the women in the USA (2003) and the men in Japan and South Korea (2002). In these 8 final games of both championships each team was analyzed separately. The evaluated activities of field players were 'actions with ball' (short pass, long pass, cross pass, goal shots, ball control, dribbling with feint, to keep the ball, for speed, and others). Furthermore, movement categories (sliding tackling, one against one fight, jumps) and 'ball striking techniques' (inside, instep kick, outside kick, full instep, head, others) were identified and recorded.

Additionally, activities were analyzed by different zones (division of the field up into zones, figure 1).

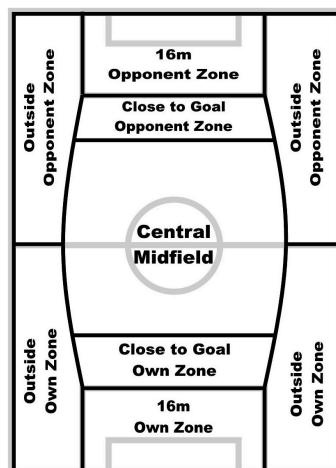


Figure 1: Division of the field up into zones

RESULTS AND DISCUSSION

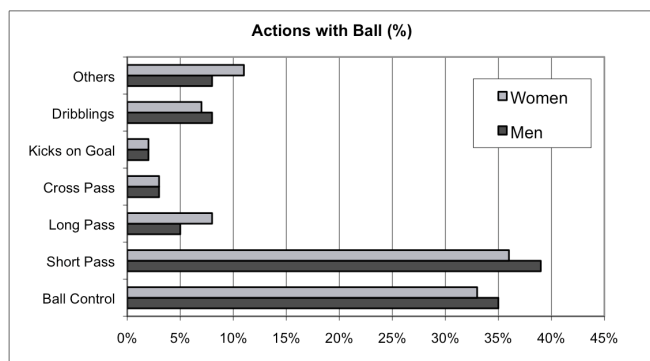


Figure 2: Percentile distribution of actions with the ball in women's and men's soccer games

Men have 20% more relative actions with ball in the outside-opponent zone than women. This may be the consequence of more dense defence activities in the midfield in front of the opponent's goal. Players have to go more to the outside for successful play. Women dribble more for speed, whereas men use more dribbling to keep the ball.

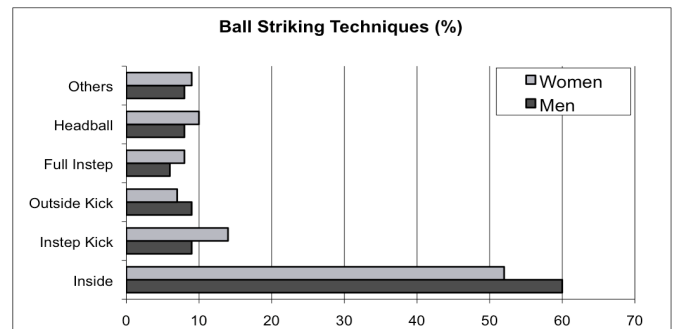


Figure 3: Percentile distribution of ball striking techniques in women's and men's soccer games

Women probably have more open space to dribble for speed, whereas men are attacked earlier by opponents and therefore, men dribble more to keep the ball. Concerning the ball striking techniques women use the instep kick much more frequently than men (figure 3). This is partly caused by a higher percentage of long passes (figure 2) but also due to muscular strength differences. The women have to use instep kicks for distances, where men can still use inside kicks. Inside kicks have the advantage of more ball control. For similar reasons women also show a higher percentage of full instep kicks. Men cover long distances more frequently by the inside than women. The total number of kicks on goal is equal for both genders, but women use more head balls and inside kicks whereas men use by far more full instep kicks to achieve a goal.

CONCLUSIONS

The women's game of soccer is strikingly different from the men's game. 8% less ball actions suggest a more forward oriented game and/or lower playing speeds. Less overall ball actions can also be explained by a much higher incidence of forward directed long passes in the women's games. A higher frequency of dribbling for speed and a lower percentage of short passes also suggest more forward actions and fewer combinations between the players on the way to the opponent's goal. Women use the instep kick more frequently than the men and have a higher percentage of head ball and full instep kicks.

ACKNOWLEDGEMENTS

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REFERENCE

1. FIFA Big Count 2006, www.fifa.com