

EFFECTS OF GENDER, GAME FORMAT, AND SKILL ON BALL POSSESSION IN NORWEGIAN YOUTH SOCCER

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Introduction

Small-sided games are commonly used as a training strategy as well as a competition form in children and youth soccer. The knowledge obtained from the comparative analyses between different game formats can be directly used to enhance a more functional soccer practice. In addition, factors such as gender and skill are thought to affect performance in youth soccer. The aim of this study is to estimate the relative effects of gender, game format, and skill on ball possession in Norwegian youth soccer.

Methods

A total of 2244 offensive and defensive ball involvements from five 35-minute matches, involved girls (three matches) and boys (two matches), were registered and analyzed. All players were 13 years old. The matches were organized in seven á side (two matches) and eleven á side (three matches) game formats. Four categorical variables were analyzed. These included two independent variables *offensive skill* and *defensive skill* and two dependent variables *offensive outcome* and *defensive outcome*. Their kappa correlation coefficient values (κ) for inter-observer reliability (Altman, 1991) ranged between $\kappa=0.84$ to $\kappa=0.95$. The association between the independent variables and the dependent variable was tested by univariate and multivariate logistic regression analyses. We used an alpha value of < 0.05 .

Results & Discussion

More ball involvements per player were registered in 7vs.7 compared to 11vs.11. Multivariate results showed that gender, game format and skill were all related to the probability of both maintaining (Table 1) and stopping ball possession.

Conclusion

Factors of gender, game format and skill all appear to have effect on ball possession in Norwegian youth soccer.

Table 1. The odds ratio (OR) from multivariate analysis for maintaining a ball possession.

Variables and categories	OR	P
Gender		
Boys	2.20	<0.001
Girls ^a	1	
Game format		
7 vs. 7	1.24	0.049
11 vs. 11 ^a	1	
Offensive skill		
Dribbling	1.68	0.45
Passing	10.62	<0.001
Receiving	1.05	0.95
Running with the ball ^a	1	

Note: The odds ratio reflects the chance of maintaining a ball possession, compared with reference category^a.

References

1. Altman, D. G. (1991). London: Chapman & Hall.