A LONGITUDINAL ANALYSIS OF SPEED CHARACTERISTICS FOR TALENTED YOUTH FEMALE SOCCER PLAYERS: A PILOT STUDY

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Introduction

Previous literature on the growth and development of female soccer players has indicated that peak speed characteristics occur around the age of 16 (1,2). However, these studies were cross sectional, and did not chart the progress of talented players. As a result, pilot work with a youth female soccer group has been started to examine longitudinally the speed characteristics of female youth soccer players, and determine if speed characteristics change over time amongst different levels of play.

Methods

Athletes (N=14) were recruited from a regional center and performed a series of tests for three consecutive years (U14, U15, U16). The testing battery included 20m sprints, 35m sprints, Yo Yo Intermittent Recovery Level 1 (YO YO), and a repeated sprint test (RSA). All times were collected using Brower Timing Gates. Longitudinal data was created for a group that qualified for the youth national team (NAT, N=4), and those who remained at the regional level (REG, N=10). A two-way ANOVA was used to compare differences between age groups and between REG and NAT.

Results & Discussion

Although NAT athletes appear to be faster throughout the different age groups (Table 1), due to the small sample size, no differences between REG and NAT for sprints were found. However, a 9% improvement in YO YO was found between REG and NAT ($p<0.01$). Further, NAT athletes did not get faster (Table 1), whereas, REG athletes did get 3% and 8% faster over 20m and 35m respectively ($p<0.01$). Both groups improved YO YO over the three years ($p<0.01$).

Table 1. 20m sprint times for NAT and REG athletes. Times in seconds are shown (SE)

Age	NAT	REG
U14	3.42+/- 0.007	3.53+/- 0.029
U15	3.46 +/- 0.01	3.57 +/- 0.025
U16	3.42+/- 0.019	3.44 +/- 0.025

Conclusion

Early results from this work show that the junior youth national athletes are faster than regional players at an early age, but show smaller improvements as they age.

References

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