Orienting adolescents and increasing talent pools in track and field, volleyball and cycling.

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INTRODUCTION:
Keeping children active during adolescence is proving to be a challenge. This has implications for sports participation and the pathway to elite sport. A better connection between schools and sports clubs can prevent sports dropouts and increase talent pools. For this purpose, a new project was set-up in which schools, sports clubs and municipalities work together to support talent detection/orientation among adolescents in three sports: athletics, volleyball and cycling. However, previous studies show that talent detection can be distorted by (temporary) differences in maturity status. The research question is whether those with the greatest potential are more likely to be detected.

METHODS:
In total 420 adolescents ($13.62y \pm .45y$) were assessed by means of the "(SportKompas I Like" survey that mapped which activity they liked and an adapted "SportKompas I Do" test battery that charted participants performance profiles. The maturity status was measured with the Khamis-Roche method. Assessing the results was done in three ways: First, seven sports were presented to each participant based on personal exercise preferences. Second, a generic test battery was assessed in both age and maturity groups and ranked into a list of better movers. Third, the organisers wanted to improve inflow in 3 sports where the infrastructure in the area offers opportunities, namely athletics (running), volleyball and cycling (track).

RESULTS:
Out of 196 girls, 81 were late mature, 71 on-time and 44 early mature. Among the 214 boys, 29 were late mature, 108 on-time and 77 early mature. Both discriminant analyses with 2 grouping variables i.e., early and late mature girls/boys were significant (girls: rcan = .827 and Wilks'   = .316 and P < .001; boys: rcan = .883 and Wilks'   = .220 and P < .001). The cross validated analysis classified 89.6% of the girls and 97.2% of the boys correctly. Early mature girls (F=103,142 and P<.001) and boys (F=205,152 and P<.001) were significantly taller than their late mature peers. Early mature girls also outperformed late mature peers for standing broad jump (F=5,297 and P<.023), sprint 30m (F=4,118 and P<.045), knee push-ups (F=5,635 and P<.019), curl-ups (F=4,807 and P<.030), endurance shuttle run (F=12,117 and P=.001) and KTK balance beams (F=5,758 and P<.018), while early mature boys scored better for shuttle run (F=6,342 and P=.013), KTK balance beams (F=7,460 and P=.007) and KTK jumping sideways (F=5,026 and P=.027).

CONCLUSION:
Sport professionals from schools and municipalities try to give a quality impetus to the talent pool in clubs. All adolescents received sports promotion recommendations. However, detecting potential at the age of 13 is biased by maturity status. Using only the ranking of performance on tests to estimate potential is not sufficient because false positives are detected while false negatives are forgotten. When evaluating the data for selection towards the sports in the region, it is important to consider differences in maturity status.

Topic: **Training and Testing**

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