



Talent Identification in Junior Tennis

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INTRODUCTION

- Talent identification information and processes have tended to lack a standardized approach and are nearly nonexistent for tennis researchers and practitioners. As a result, no one has identified the key factors that consistently distinguish elite from non-elite junior tennis players.
- However, there are several different areas of research that point to various features that tend to characterize the most talented young performers.
- These areas include:
 - skill mastery (e.g., the desire to reach high levels of performance, great enjoyment of practice, learning, and participation in tennis,
 - high levels of commitment to the sport),
 - psychological traits (e.g., high performance under stress, focus on cues such as an opponent's tendencies, strengths and weaknesses, and resistance to distractions such as negative thoughts or anxiety),
 - physical abilities and attributes (e.g., height, weight, power, agility, and flexibility), and
 - environmental factors (e.g., family background, socio-economic status, education, age, ethnicity, and gender).
- This project attempted to produce a comprehensive talent identification method that could take into consideration these factors and illustrate their usefulness for predicting performance in the junior tennis setting of time (similar to standard tournament play).

PURPOSE

The purpose of this study was to determine a protocol that would inform its users of the relative importance of certain factors that are essential for elite tennis performance in young players. A second goal was to discover which of these factors best predicts future performance.

SAMPLE

Participants for this study were 122 (51 male and 71 female) junior players from USTA training camps in Southern California and Southern Florida. At the California, site the mean age for the boys was 12.26 years and 11.95 years for the girls, while the boys at the Florida site were on average 12.25 years and the girls were on average 11.80 years. Thirteen of the boys and 24 of the girls at both sites had been or were currently ranked among the top10 players in their section

METHOD

Each participant completed 12 physical tests (e.g., measures of height, weight, and body composition), 4 psychological surveys (e.g., personality and mental toughness inventories), and a background questionnaire (e.g., measures of practice and competitive habits, goals, and perceptions of parental expectations).

RESULTS

Overall, the assessments selected (i.e., physical characteristics, motor abilities, psychological traits, and background information) for the talent identification process were useful and reliable.

- A few tests proved to be impractical or provided little useful information in terms of talent identification (e.g., dynamic balance and timing tests did not appear to discriminate the less and more successful performers in any meaningful way).

Physical Traits:

- Female players' height and weight did not appear to distinguish the differently ranked players; however, lower percentage body fat measures were more common among the higher ranked players than their lower ranked peers.
- The top ranked males were nearly identical in height and weight, but there was a trend for the smaller sized players (shorter, lighter, and less body fat) in this group to rank ahead of the larger sized players.

Motor Abilities:

- The primary factors that separated the higher versus lower ranked female players were greater strength, speed, agility, power, and vertical jump.
- It did not appear that increases in most motor abilities distinguished the less from the more able tennis players.
 - This finding suggests that perhaps there is some optimal level of these abilities rather than a "more is better" principle being in place (e.g., moderate levels of leg power may be superior to less power that restricts force generation and high power that can hamper agility).
 - Exceptions to this finding were that higher level male players tended to have better hand-eye coordination and higher stroke ratings than the lower ranked players.

Psychological Traits:

- Higher ranked male and female players believed that success was mostly due to the effort and ability of an individual athlete.
- The Mental Toughness Inventory was more useful for distinguishing between the high and low ranked female players in the older age group.
 - Among these players, those who were ranked higher reported higher levels of confidence, focus, and energy control.
- Higher ranked male players tended to score higher on measures of motivation, energy control, and focus.
- Extroversion is another quality that was found to be common among all of the high level athletes who were tested.

RESULTS (cont.)

Background Characteristics:

- Whereas the higher ranked female players tended to dedicate equal amounts of their time to tennis and academics, higher ranked males tended to spend a greater amount of time with tennis related activities than with academics or other activities outside of sport.

- In terms of personal goals, female players of all ranks shared similar goals (e.g., obtaining a college scholarship and becoming the #1 ranked player in the world).

- On the other hand, male players differed in the goals they set with the top-ranked players setting goals similarly to the female players and lesser ranked male players focusing primarily on achieving the top ranked position.



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RECOMMENDATIONS

- Random selection of inventories or test of talent is inappropriate. The assessment(s) used must be reliable, practical, and relevant to the sport of tennis and its participants.

- The project findings provide a method to predict *current* top-15 players in a particular section. However, these results cannot and should not be used to predict player rankings several years into the future.

- Certain factors for the various age and gender groups appeared to be important predictors of higher versus lower ranked players with the groups that were studied:

Girls; 11-12 years:

- Higher levels of extroversion, agility, relative sitting height, body weight predicted higher ranked players.

Girls; 13-14 years:

- Higher levels of ego orientation (compete to succeed above others), task orientation (compete to achieve high level of skill), ratio of task to ego orientation (with greater focus on task versus ego oriented goals), and faster anticipation timing predicted higher ranked players in this group.

Boys; 11-12 years:

- Better dynamic balance (leaping in various directions and balancing on one leg), power, ability level of opponents, flexibility and focus predicted higher ranked players in this group.

Boys; 13-14 years:

- Greater height, belief that ability determines success in tennis, number of hours each week completing homework, opponent ability, and lower skinfold thickness predicted higher ranked players in this group.

- Information gathered from this study should be considered with caution because of the small number of players who were studied. More research is needed in this area before these predictions can be made with more certainty..

REFERENCES/ RESOURCES

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