



AUSTRALIAN
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Title: Psychological Attributes of Tennis Players in Tennis Australia's Athlete Development Matrix

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Background

Research was conducted to identify and compare the psychological characteristics of skilled and lesser skilled tennis players in age groups relative to Tennis Australia's (2007) Athlete Development Matrix (ADM). Players in the Tennis Australia's National High Performance Academies (NHPA) and Australian Institute of Sport (AIS) Tennis program were the skilled players. Age-related changes in young skilled tennis players' psychological development were also explored.

Results

The results highlighted the importance of further developing psychological skills in young tennis players sooner rather than later in the ADM as the psychological attributes identified in older skilled players (i.e., U15, U17, 17+) were present in players as young as 11 and 12 years of age. NHPA and AIS players exhibited effective coping skills, high personal standards and high levels of confidence, commitment, mental toughness, and organisation. In particular, skilled tennis players scored better on the following psychological attributes:

- **Personal Standards** – Athletes set high standards and evaluate themselves against these standards. They are hard-working, set challenging goals and take pride in their performance. (*Measured by the Multidimensional Perfectionism Scale; Frost et al., 1990*).
- **Involvement opportunities** – Athletes value opportunities that only arise through maintaining their involvement in tennis e.g. mastery, social aspects, fitness. (*Measured by the Sport Commitment Model; Scanlan et al., 1993*).
- **Perseverance** – Athletes are able to cope with the pressure of competition and persist in the face of adversity. They don't give in when challenged. (*Measured by the Mental Toughness Inventory; Middleton et al., 2004*).
- **Value** – Athletes are motivated to perform well as tennis is an important aspect of their lives. They enjoy tennis and are determined to succeed. (*Measured by the Mental Toughness Inventory; Middleton et al., 2004*).



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Recommendations

These psychological attributes can be developed further and introduced to tennis programs targeting players as young as 11 years of age.

1. Setting high personal standards is a positive aspect of perfectionism which can be encouraged and appropriately monitored by coaches (and parents) by implementing goal setting programs which require the player to identify action goals for every training and match they play to evaluate progress.
2. The experience of involvement opportunities is currently being addressed by Tennis Australia with such programs as Aviva Tennis Hot Shots targeting grassroots participation for young children, and the development of the NHPA for skilled athletes.
3. The characteristics of perseverance and value can be used for talent identification purposes. Coaches can identify young players with higher levels of Perseverance and Value which are both elements of mental toughness according to Middleton et al. (2004).
4. Further research is required to examine young players' social and environmental experiences which contribute to the early development of such important psychological characteristics.

Considerations for Tennis Australia

Athletes in the U17 age group reported lower levels of confidence and experienced greater difficulties in concentration when compared with other age groups in the ADM. These results may suggest that tennis players at 15 and 16 years of age may be in a critical period of development. Tennis Australia's Athlete Development Matrix identifies this developmental period as the *cultivate* period. Athletes will have high expectations regarding their ability to be successful so as to achieve their goals of perhaps making it to the professional tour. However, during this time they are often beginning to make the transition to higher levels of competition which means being successful in matches is more difficult which negatively affects confidence and concentration – and perhaps over time motivation to stay in the sport. Future research should investigate effectiveness of programs teaching these athletes coping strategies and preparing them for transition to the professional tour.

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