

## **Do elite young basketball players attain a high-level adult level? Survival analysis of the under-16 France national team players.**

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**Introduction:** Talent identification, selection, and development of young athletes are often described by competitive levels and labeled as elite young athletes. It refers to those that perform better than their peers at their respective age groups. It is generally embedded by coaches and stakeholders based on the assumption that elite young athletes will likely become elite adult players, This assumption is poorly supported with empirical evidence. France basketball represents a reference, as it has a well-established identification, selection, and development program aimed to promote French players to the highest levels of adult basketball performance. Young athletes' pathways tend to be highly complex and dynamic processes, where the chances to achieve an elite level of performance are small due to the high number of players involved in competition and practice for achievement. Especially in basketball, body size and dimension may be advantageous for players performance over their opponents during matches. Thus, the growth-related changes in youth athletes' development should be considered through the selection and development processes, avoiding coaches and stakeholders' overvaluing of non-potential elite-performers during adulthood. These misunderstandings must reflect on athletes' career and level of performance achievement. Even with the crescent number of studies in the area, empirical data of athletes' career progression and achievement are scarce. **Objectives:** In this study, we examined the probability of young athletes selected to represent the French national under-16 team to attain the France adult basketball team participating in Olympic Games, World Championships or Eurobasket championships, as well as attaining the highest level of professional club level, i.e. the *National Basketball Association* (NBA). **Methods:** All players from the under-16 France basketball team participating in the European championship between 2003 and 2010 were considered. Since 2003 the youth European championships are annual, and we censored the observations in 2010 (the last year with players attaining NBA level and the France adult team), comprising 84 athletes. The follow-up at adult level for the France national team and for professional-level was extracted from the official FIBA archives website the NBA website, respectively. **Results:** From the 84 players selected to represent the Under-16 France national team, six players achieved the NBA, i.e., a probability of 0.07. Moreover, from the total sample of under-16 players, only ten were later selected to represent France's national team in the major international championships (Eurobasket, World Cup and/or Olympic Games), i.e., a probability of 0.12. **Conclusion:** Prognosis of adult super-champions, even in a highly selected group of "elite basketball players" is unreliable. Hence, coaches, athletes, and other interested stakeholders show be cautions on performance prognosis of sports talent may be misunderstood and researchers should take care when considering youth elite and/or talented players. Furthermore, labels such as elite young athletes are pointless both in applied training and research contexts.

**Keywords:** talent development, basketball, elite athletes, youth sports.