ANNALS OF RESEARCH IN SPORT AND PHYSICAL ACTIVITY

Predictors of physical performance in youth elite basque soccer players aged 10 12 and 13 15

Autor(es): BidaurreazagaLetona, Iraia; Lekue, José António; Amado, Markos; Gil, Susana M.; Faculdade de Ciências do Desporto e Educação Física da Universidade de Coimbra, ed. lit.

Publicado por: Imprensa da Universidade de Coimbra

URL persistente: URI:<http://hdl.handle.net/10316.2/34836>

DOI: DOI:http://dx.doi.org/10.14195/2182-7087_5_4

Accessed : 26-Apr-2023 12:55:58

A navegação consulta e descarregamento dos títulos inseridos nas Bibliotecas Digitais UC Digitalis, UC Pombalina e UC Impactum, pressupõem a aceitação plena e sem reservas dos Termos e Condições de Uso destas Bibliotecas Digitais, disponíveis em <https://digitalis.uc.pt/pt-pt/termos>.

Conforme exposto nos referidos Termos e Condições de Uso, o descarregamento de títulos de acesso restrito requer uma licença válida de autorização devendo o utilizador aceder ao(s) documento(s) a partir de um endereço de IP da instituição detentora da supramencionada licença.

Ao utilizador é apenas permitido o descarregamento para uso pessoal, pelo que o emprego do(s) título(s) descarregado(s) para outro fim, designadamente comercial, carece de autorização do respetivo autor ou editor da obra.

Na medida em que todas as obras da UC Digitalis se encontram protegidas pelo Código do Direito de Autor e Direitos Conexos e demais legislação aplicável, toda a cópia, parcial ou total, deste documento, nos casos em que é legalmente admitida, deverá conter ou fazer-se acompanhar por este aviso.

ANNALS OF RESEARCH IN SPORT AND PHYSICAL ACTIVITY

FACULDADE DE
CIÊNCIAS DO
DESPORTO E
EDUCAÇÃO FÍSICA
DA UNIVERSIDADE
DE COIMBRA

IMPRENSA
DA UNIVERSIDADE
DE COIMBRA

1 • TREINO DESPORTIVO / SPORT TRAINING

**PREDICTORS OF PHYSICAL
PERFORMANCE IN YOUTH ELITE BASQUE
SOCCER PLAYERS AGED 10-12 AND 13-15**

INTRODUCTION

A considerable variation in size and performance due to age and maturity in elite youth soccer players makes it difficult to predict performance potential at an early age [1]. Thus, the purpose of the present study was to analyse the relevance of size and maturity in physical performance in elite youth soccer players.

METHODS

The sample included 120 players of the under-12 teams (11.2 ± 0.5 years) and 114 players from the under-14 teams (13.0 ± 0.7 years) of the Athletic Club of Bilbao. The following measurements were taken: height, sitting height, weight and six skinfolds; age at peak height velocity (APHV) [2], modified Barrow agility test [3], counter-movement jump (CMJ), 15-m sprint test, Yo-yo intermittent recovery test (Yo-yo IR1) and handgrip test. Results of performance tests were transformed into z-scores and summed up to make a total score of performance with and without the handgrip test (SCOREHG and SCORE).

• 29

Multiple linear regression analyses was used to estimate the contribution of CA, APHV, height, sum of skinfolds and muscle percentage to physical performance indicators. SPSS v18 was used to calculate means, standard deviations and multiple linear regressions. The level of significance was set at $P < 0.05$.

---

¹ Faculty of Physical Activity and Sport Sciences, University of the Basque Country (UPV/EHU), Basque Country, Spain

² Medical Services, Athletic Club de Bilbao

RESULTS

In under-12 players predictors accounted for 17% of variability in 15-m sprint test (sum of skinfolds and CA); 40% in the agility test (CA, sum of skinfolds and muscle percentage); 32% in the Yo-yo IR1 (CA, sum of skinfolds and height); 16% in the CMJ (muscle percentage and sum of skinfolds); 36% in the handgrip test (height and CA); 33% in SCORE and 42% in SCOREHG (CA, sum of skinfolds and APHV).

In under-14 players predictors accounted for 38% of variability in the 15-m sprint test (CA); 25% in the agility test and 55% in the Yo-yo IR1 (CA and sum of skinfolds); 51% in the CMJ (CA, sum of skinfolds and height); 64 % in the handgrip test (height and muscle percentage); 64% in SCORE and 70% in SCOREHG (CA, sum of skinfolds and APHV).

DISCUSSION

Consistent with observations in other studies [4] explained variability was greater in older players. This may be due to individual differences in maturity status and growth [1]. CA and sum of skinfolds were the most important predictors. Other studies have already showed that fatness is an important predictor in youth soccer players [4] and that CA, due to its influence on the maturation of the nervous system, may have an important influence in performance during adolescence [1]. In summary, the results suggest that players who are advanced in CA and leaner have better performance.

REFERENCES

- 1-Malina, R., et al. (2004) Human Kinetics
- 2-Mirwald R, L., et al. (2002) *Med Sci Sports Exerc*, 34: 689-694
- 3-Barrow, H, M. (1954) *Res Q*, 25: 253-260
- 4-Figueiredo A, J., et al. (2010) *Scand J Med Sci Sports* 21(3):446-54

ACKNOWLEDGEMENTS

This study was partially supported by a grant from the Basque Government (IT700-13) IBL is supported by a predoctoral fellowship from the Basque Government (BFI2010-35)