ORIGINAL ARTICLE

Model Characteristics of Special Fitness of Pole Vault Jumpers Aged 12–17

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Authors' Contribution:
A – Study Design
B – Data Collection
C – Statistical Analysis
D – Data Interpretation
E – Manuscript Preparation
F – Literature Search
G – Funds Collection

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Abstract

Background: *The aim of the research was to define model characteristics of special fitness in pole vault jumpers of different age categories.*

Material/Methods: *Experimental research was conducted between 2002 and 2009 involving 78 sportsmen doing pole vault at sports club "Zawisza" Bydgoszcz, "Gwardia" Piła, "Śląsk" Wrocław, pole vault centre Gdańsk, and TS "Olimpia" Poznań. In comprised: an assessment of physical development, testing physical fitness, and recording sports results.*

Results: *An analysis of the contestants' physical development dynamics gave a chance to isolate significant moments of differentiation of somatic build features as a result of the applied training stimulus in pole vault.*

It can also be observed that the sportsmen achieving the best scores in pole vault achieved better results in particular physical fitness attempts than their peers.

Results of a correlative analysis, taking into account statistical distribution, allowed defining special fitness indices in a uniform grading scale.

Conclusions: *The above grading scale allows assessing the level of development of particular indices in a normalised scale making it possible to compare them against the value of changes occurring during the training process.*

The analysis of particular indices in a uniform grading scale creates the basis for a generalised assessment of special preparation of pole vault jumpers, presentation of their individual model and programming further development. Generalised characteristics in qualitative and quantitative approach make it possible to define the level of special preparation in categories: high, above average, average, below average, low.

The determination of model characteristics of pole vault jumpers aged 12–17 allowed defining specific trainings tasks and individualisation in programming and realization of training loads.

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