

Influence of specific means on the dynamics of athletic shape in women's artistic gymnastics – a case study

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Abstract

Background. The scientific argument is represented by the highlighting of the specific training means influence on the dynamics of athletic shape which, by providing an optimum relationship of effort parameters and technical-physical training level, contributes to the improvement of peaking in women's artistic gymnastics. This approach led to a case study conducted in School Sports Club no. 7 Dinamo Bucharest.

Aims. The authors point out the influence of the specific training means on the dynamics of the athletic shape in performance artistic gymnastics. We have considered that an optimum relationship provided between the content of the specific training means and the dynamics of effort parameters in different periods and stages of training would contribute to the increase of the athletic shape level and to better performances achieved in competition.

Methods. The study was carried out throughout a training macro-cycle formed of 4 training mezzo-cycles (11.01.2011- 16.04.11), consistent with the basic stages, pre-competitive period and the competitive period, formed of 14 training micro-cycles, applied to a single female gymnast, 10 years old, category IV level. The gymnast's evolutions were monitored during training period and competition, by means of statistics and the plotting method.

Results. The study highlights the influence of specific training means on athletic shape dynamics in women's artistic gymnastics. The comparative analysis of the content of the means used in different training mezzo-cycles points out this content regarding the preparation periods per each mezzo-cycle, the number of micro-cycles and training sessions, the artistic and physical training, the number of workouts on each apparatus.

The results of statistical calculations for the level of physical training, highlight an average of 16.18 points at the initial testing and an increase by 6.91 points at the final testing, with significant differences between tests at $p < 0.01$. The results obtained during competition, at the National School Championship, demonstrate an average of 4.56 points at mark A1, regarding the difficulty of exercises, 9.06 points as an average of mark B, regarding the execution on apparatus, a final average of 13.95 points and a total score of 55.800 points. These results led to the ranking of this subject on the 1st place at the all-round finals and uneven parallel bars and on the 2nd place at beam and floor.

Conclusions. Ensuring an optimal relation between the content of a specific training means and the dynamics of exercise parameters in various periods and stages of training contributes to an increase of athletic shape level and to the achievement of better performances in competition.

Keywords: athletic shape, artistic gymnastics, means, performance, planning, training.