Study on the Women who Held National, Olympic and World Record at the 1500 m. Discipline

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KEYWORDS

Paula IVAN
Spiru Haret University

Daniel GHEORGHE
Spiru Haret University

ABSTRACT

The study is longitudinal type, records following the evolution of the women national, Olympic and world record at 1500 m. discipline (BORIGA, N.A., SIMIONESCU, V., 1997; www.en.wikipedia.org). It also has transverse character, all somatic data were taken on each athlete in part. (www.sports-reference.com). There were registered 60 performances of 31 athletes. As research methods we used the case study, observation and mathematics. The results we hope to help coaches, especially those dealing with children and youth.

INTRODUCTION

Middle and long runs, are among the most spectacular disciplines of athletics.

The fast pace of the races, runners suppleness, spectacular finisher have contributed more as these disciplines to gain increasingly more followers.

The considerable increase athletic performance in this group of disciplines its explanation in training methods, which have continually improved over the years, due to their experience of coaches and athletes and new conquests of science in training (Puică I., 2008).

The effort that we provide middle runners fall in mixed type. In this exercise duration is between 1-3/5 minutes, so it than is necessary for anaerobic biochemical processes to provide energy for themselves, but it is shorter than the adaptation requirements of cardiac and respiratory functions, after which it can provide O2 needed just about aerobic energy release (Nicu A., 1993).

Factors favoring the sports performance in these disciplines are: aerobic capacity, anaerobic capacity, running technique and volition.

As a general definition, we can say that the performance is “the result of human action superior to known results” (Ţifrea C., 2002). In evaluating athletes we must always take into account two fundamental components of human performance in general: the biological and psychological.

In this way the body composition corresponds to the structural components of the human body composed of elements of very different nature and density (bone, fat, water, protein), maintained in constant proportion and functionally integrated (Cordun M., 2011). In this way the precise knowledge of the athlete’s height and weight and is welcome framing it in a test pattern.

Many times in the sport’s practice, while coaches respected the specific training method’s guideline, worked with athletes selected by the constitutional model, they did not achieved the expected performance, because they neglected psychological component.

The goal of mental preparation for competitions consists in forming for athletes, of a system of attitudes and behavior, with operational and regulative character through which it is flexible and adapts to contest’s situations and opponents actions (Holdievici I., Epuran M., Tănăsă F., 2008).

It is obvious that the main objectives of the training are participating in competitions, challenge other athletes in the competition for a place in the hierarchy of sports and achieve high performance.

However, the importance of the competitions passing of these purposes, because they are the most important and specific methods of estimation the progress of athlete (Bompa T.O., 2001).

METHODS AND SUBJECTS

The study is longitudinal type, records following the evolution of the women national, Olympic and world record at 1500 m. discipline (BORIGA, N.A., SIMIONESCU, V., 1997; www.en.wikipedia.org). It also has transverse character, all somatic data were taken on each athlete in part. (www.sports-reference.com). There were registered 60 performances of 31 athletes. As research methods we used the case study, observation and mathematics.

RESULTS

The results we hope to help coaches, especially those dealing with children and youth. In what follows, we present the 3 tables and 3 graphs representative undertaken research.

Table 1 Evolution of National records

<table>
<thead>
<tr>
<th>Rank</th>
<th>Name and Surname</th>
<th>Citizenship</th>
<th>Performance</th>
<th>Date of birth</th>
<th>Age (years)</th>
<th>Height (cm)</th>
<th>Weight (kg)</th>
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<tbody>
<tr>
<td>1.</td>
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<td>RO</td>
<td>4:14:2</td>
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<td>29</td>
<td>160</td>
<td>57</td>
</tr>
<tr>
<td>6.</td>
<td>Victor EMINESCU</td>
<td>RO</td>
<td>4:10:3</td>
<td>13.05.1992</td>
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<td>57</td>
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<tr>
<td>7.</td>
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<td>8.</td>
<td>Cristian DINER</td>
<td>RO</td>
<td>4:10:0</td>
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<td>9.</td>
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<td>RO</td>
<td>4:09:8</td>
<td>22.05.1992</td>
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Table 2 Evolution of Olympic records

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<tr>
<td>10.</td>
<td>Mihai DÂNESCU</td>
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Table 3 Evolution of World records

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**DISCUSSION**

Performance. For national records we have a total of 11 athletes totaling 29 performances. The first record was registered in 1950 and was 4:54.2. The current record is 3:53.96 and resists 1988. The amplitude of performance is 1:00.24. For Olympic records we have 3 results, the first women participation in that discipline was recorded barely in 1972. For world records we have a total of 19 athletes totaling 28 performances. The first record was registered in 1913 and was 5:44.0. The current record is 3:50.07 in 2015. The amplitude of performance is 1:53.93.

Citizenship. For world records we have 10 citizenships, noting that the former Soviet Union owns 16 of the 28 results.

Age. For national records amplitude is 18 years, between 19 and 37 years. For world records amplitude is 8 years, between 21 and 29 years.

Height. For national records amplitude is 5 cm, between 166 and 171 cm. For world records amplitude is 16 cm, between 162 and 178 cm.

Weight. For national records amplitude is 10 kg, between 49 and 59 kg. For world records amplitude is 19 kg, between 47 and 66 kg.

**CONCLUSIONS**

- The national and Olympic record belong to the same athlete and resists for 28 years.
- The amplitude of age at national records is significantly higher than that of world records.
- The amplitude of height and weight at world records is significantly higher than that of national records.

**REFERENCES**

8. www.en.wikipedia.org