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Retrospective analysis of the performances among qualified female swimmers-stayers at World championships

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Abstract: The article provides a retrospective analysis of the qualified female swimmers-stayers' performances at the World Championships. The article presents a summary table. It reflects the disciplines in which female athletes currently participate. We also present the following: the winners at the distances, the country they represent, the result. Certain positions are clearly traced - the countries, the representatives of which became winners as often as possible and the dynamics of results at distances. ***Materials.*** The article considers the results of the author's research concerning the analysis of the qualified female swimmers-stayers' performances at the World Championships. It determines the dynamics of the results, the distribution of the countries prize-winning during the period of the competition. ***Research methods.*** Scientific literature analysis and summarizing, pedagogical observation, video analysis of competitive activity among female swimmers-stayers, the received data analysis. ***Results.*** The author revealed the dynamics of long distances inclusion in swimming at the World Championships, including swimming distances in the pool (800 m free style, 1500 m free style) and in open water (5 km, 10 km, 25 km). We presented the dynamics of effectiveness, the leading countries in each discipline. The received data would help to analyze the methodologies of the training process used in countries-winners, the results can form the base for changes in the training process of female swimmers-stayers, directed toward its effectiveness improvement, starting from initial training, ending with the level of high qualification. ***Conclusion.*** In the training process, when applying an individual approach, it is necessary to use a complex method. This method can be based on the analysis of the methods used by the leading countries-participating in swimming. The coaching staff and athletes should pay special attention to the combination of an individual approach and the latest research works in the biomedical and psychological fields. They would be based on the data concerning high effectiveness of the training process techniques of the leading countries-participants.

Keywords: performance analysis, swimming, qualified female swimmers- stayers, world championships, the training process individualization.

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Introduction

Swimming is one of the most wide-spread kinds of sport. People usually master this motor activity by themselves, practice it in open water and in the swimming pool under the guidance of a coach. The aims and objectives of a person, who practices swimming, can be

different. Some people want to master a vital skill, strengthen the body, health, others want to become the winners of swimming competitions [1-4]. Each year children are selected in big towns for swimming sports schools. At the very beginning of the lessons a coach should define the kind of distance (short or long), which a child is inclined to. At this stage it is possible to form suitable training regimen, based on individual characteristics of an organism. Further the part of an individual approach in an educational-training process would increase.

Materials and methods

World water sport championships are the competitions for which athletes get ready according to long-term programs, aiming to present the best results. The training process of highly-qualified athletes (men and women) differs. In order to achieve the best results, records the specialists, who take part in the training process, should study the dynamics of achievements increase and the methods, which provide the best results. We analyzed the period of 46 years, during which World water sport championships were held. The results are presented in the table. It also shows the order of inclusion and a modern variant of long distances in swimming and presents the dynamics of results change among female stayers.

Results and discussion

The table presents the winners (women) in stayer distances at World championships, since 1973.

Table

Prizewinners (women) in stayer distances at World championships, since 1973

World championships	Current program of stayer distances, prizewinners (women)				
	Swimming pool		Open water		
	800 m free style	1500 m free style	5 km	10 km	25 km
1973	Novella Calligaris (Italy) 8.52,97,8.52,97				
1975	Jenny Turrall (Australia) 8.44,75				
1978	Tracey Wickham (Australia) 8.24,94				
1982	Kim Linehan (USA) 8.27,48				
1986	Astrid Straus (GDR) 8.28,24				
1991	Janet Evans (USA) 8.24,05				Shelley Taylor-Smith (Australia) 5:21.05,53
1994	Janet Evans (USA) 8.29,85				Melissa Cunningham (Australia) 5:48.25
1998	Brooke Bennett (USA) 8.28,71		Erica Rose (USA) 59.23,5		Toby Smith (USA) 5:31.20,1
2001	Hannah Stockbauer (Germany) 8.24,66	Hannah Stockbauer (Germany)16. 01,02	Viola Valli (Italy) 1:00.23	Pegi Boucher - (Germany) 2:17.32	Viola Valli (Italy) 5:56.51
2003	Hannah Stockbauer (Germany) 8.23,66	Hannah Stockbauer (Germany)16. 00,18	Viola Valli (Italy) 57.01,2	Viola Valli (Italy) 1:59.49,9	Edith van Dijk (Netherlands) 5:35.43,5
2005	Kate Ziegler (USA) 8.25,31	Kate Ziegler (USA) 16.00,41	Larisa Ilchenko (Russia) 55.40,1	Edith van Dijk (Netherlands) 1:56.00,5	Edith van Dijk (Netherlands) 5:25.06,6
2007	Kate Ziegler (USA) 8.18,52	Kate Ziegler (USA) 15.53,05	Larisa Ilchenko (Russia) 1:00.41,3	Larisa Ilchenko (Russia) 2:03.57,9	Britta Kamrau (Germany) 5:37.11,66
2009	Lotte Friis (Denmark) 8.15,92	Alessia Filippi (Italy) 15.44,93	Melissa Gorman (Australia) 56.55,8	Keri-Anne Payne (Great Britain) 2:01.37,1	Angela Maurer (Germany) 5:47.48,0
2011	Rebecca Adlington (Great Britain) 8.17,51	Lotte Friis (Denmark) 15.49,59	Swann Oberson (Switzerland) 1:00.39,7	Keri-Anne Payne (Great Britain) 2:01.58,1	Ana Marcela da Cunha (Brazil) 5:29.22,9
2013	Katie Ledecky (USA) 8.13,86	Katie Ledecky (USA) 15.36,53	Haley Anderson (USA) 56.34,2	Poliana Okimoto (Brazil) 1:58.19,2	Martina Grimaldi (Italy) 5:07.19,7
2019	Katie Ledecky (USA) 8.13,58	Simona Quadarella (Italy) 15.40,89	Ana Marcela da Cunha (Brazil) 57:56,0	Sin Sin (China) 1:54:47,2	Ana Marcela da Cunha (Brazil) 5:08:03.0

The results of the held research work show that the favorites at stayer distances in most cases were female athletes from the USA. During 18 years there was only one stayer distance at World championships - 800 m free style. During further 10 years more 4 distances were included, three of them were in open water.

Conclusion

The organized research work helps to make the conclusion concerning the quality of the performances of the women-leaders. They specialized in stayer distances during World championships. Held by us retrospective results analysis of the performances among the best female swimmers-stayers during last 20 years showed the absence of stable dynamics in results improvement. It means that modern methodologies of training female-stayers are not effective enough. It is necessary to search for effective means, methods and forms of training. The presented results can be the base for the analysis concerning a long-term training process optimization while training qualified female swimmers-stayers. The materials can be included into the system of training on the basis of the training process individualization.

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