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# Analysis of performances of European Championship participants among women's wrestling cadets

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**Purpose:** to analyze the sports achievements of the participants of the European Championships among cadets in women's wrestling for the national team of Ukraine.

**Material & Methods:** analyzed the sports careers of 74 athletes of the Ukrainian team, who took part in the European Championship among cadets from 2000 to 2010, and their further performances to date.

**Results:** the following indicators are considered: the results of the athletes 'performances at the European Championship among cadets; the number of athletes who continued their careers separately in junior and adult years; results of the performance of athletes in junior and adulthood at international competitions.

**Conclusions:** the general trends of the future career and achievements of the athletes of the national team of Ukraine who participated in the European Championships among cadets from 2000 to 2010 are revealed. For athletes established the relationship of their own results at all stages of a sports career. Quantitative data and distribution of characteristics for all 74 participants of the competition are given: 56.8% of female athletes continued their career among adults, and 24.3% took prizes in European and world championships. An outstanding result is emphasized - five athletes managed to take part in the Olympic Games.

**Keywords:** analysis of competitions, sports result, wrestling, cadets, women.

#### Introduction

Successful and effective management of sports training is impossible without sound forecasting, adequate to modern scientific knowledge. Forecasting creates the necessary prerequisites for making the right managerial decisions by athletes, coaches, and administration. Forecasting is aimed at designing, planning and, ultimately, at achieving set promising goals (V. Tkachuk, 2005; T. O. Bompa, 2009; O. A. Shinkaruk, 2011; V. N. Platonov, 2015). The main priority goal of training highly qualified athletes is success in international competitions among adults - European Championship (EC), World Championship (WC) and the Olympic Games (OG). The identification of talented athletes (Talent Identification) and ways to improve them is one of the most discussed and popular areas in training athletes (R. Vaeyens, 2008; J. Gulbin, 2013; V. M. Kostyukevich, 2014; G. F. Vasiliev, 2016; V. Issurin, 2017).

A retrospective and perspective analysis of a sports career is distinguished (K. Johnston, 2018). A prospective analysis allows you to track the future career of young talented athletes; find out how important early athletic achievement is to good adult performance (J. Brouwers, 2012; L. Bruce, 2013). A retrospective analysis of a sports career reveals the relationship between the results at all stages of the sports career of elite adult athletes who have achieved results (M. Latyshev, 2016; P. Li, 2018).

These types of analyzes are carried out for different types of varieties and levels of athletes: from a candidate for national

teams (J. Barreiros, 2012) to Olympic champions (L. Bruce, 2013; H. Tunnemann, 2016; M. Latyshev, 2020). Such studies were carried out in freestyle wrestling (S. Latyshev, 2009; B. I. Tarakanov, 2013), Greco-Roman wrestling (Yu. Tropin, 2013; M. Baic, 2014), taekwondo (P. Li, 2018). However, we did not find scientific papers on women's wrestling and analysis of the sports career of athletes in a particular country.

**Purpose of the study:** to analyze the further sports achievements of the participants of the European Championships among cadets in women's wrestling for the national team of Ukraine from 2000 to 2010.

#### Material and Methods of the research

All the performances of the athletes who participated in the European Championships among cadets from 2000 to 2010, and their further performances to date (August 2019), are analyzed. In general, the sports careers of 74 athletes of the Ukrainian team were analyzed, who took part in 780 competitions in the international arena during their careers. All data is taken from the official site "United World Wrestling" (unitedworldwrestling.org, 2019).

The following indicators are considered:

- the results of the performances of athletes at the European Championships among cadets;
- the number of athletes who continued their careers separately in the cadet and junior age;

– the results of the performance of athletes in junior and adult-hood at international competitions – EC, WC and OG

All athletes were divided into two groups: participants in the European Championships and prize-winners (athletes who took from 1 to 3 places inclusive). For both groups, all indicators listed above were considered.

For data analysis, all results were summarized in a single table (DataFrame). Statistical processing was performed using the Python 3.7 programming language, and visualization of the results using MS Excel.

#### Results of the research

The first part of the study discusses the general trends of the women's national team of Ukraine at the European Championships among cadets in the period from 2000 to 2010 and during the further careers of all athletes.

Table 1 presents data on the number of athletes, participants and prize-winners of the competition, depending on the European Championship year and age group (cadets, juniors and adults).

Considering the general trends, it is worth noting that medals were won at all European Championships for the analyzed period. The distribution of the number of won medals (prize-winners) for each year ranges from 2 (22,2%) in 2004 to 9 (90,0%) in 2010. The number of athletes who continued their careers at a junior age ranged from 3 (37,5%) in 2005 to 8 (80,0%) in 2009 and 2010. However, there are much fewer prizes: from 1 (10,0%) medals to 6 (60,0%) in 2006 and 2010.

The number of athletes who have continued their careers among adults is declining, but not significantly, which indicates a high degree of training and an early transition from junior wrestling to adult wrestling among women. However, various trends are visible here: in 2000, 2001, 2002, 2007 the number of athletes who continued their careers was reduced; in 2003, 2004 and 2010 – it remains unchanged, and in the remaining years it rises (some athletes did not take part in the junior competitions, but continued to perform in adulthood).

Figure 1 shows the total number of athletes who participated and won prizes in the European Championship among ca-

dets; the number of athletes who continued their careers and achieved results in junior and adulthood.

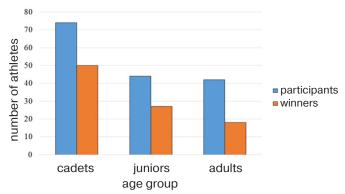


Fig. 1. Distribution of the number of participants and prize-winners of competitions depending on age group

In general, during 2000–2010, 74 athletes took part in the European Championships at the cadet age, of which 50 (67,6%) athletes became prize winners. Further career in junior age was continued by 44 athletes (59,5%) and only 27 (36,5%) of them won prizes in international competitions (European Championship or World Championship). A significant reduction in the number of female athletes in junior age is a natural process for selecting the most promising and talented female athletes. The most important successes of athletes are achievements in an adult career. Almost all athletes who took part in competitions at a junior age continued their career among adults 42 (56,8%). However, only 18 (24,3%) athletes achieved a result (prizes at the European Championship or World Championship) in adult competitions.

The analysis showed that 8 (10,8%) athletes changed their citizenship and continued to act as representatives of other countries. They all continued their performances until an adult career and 5 (62,5%) athletes achieved significant results. The processes of emigration and immigration of athletes must be considered comprehensively; This direction of research is relevant and requires further in-depth study (R. Sushko, 2016).

The second part of the work deals with the performances of only winners of the cadet championships of Europe. These data represent important information in the preparation of

Table 1
The distribution of the number of participants and winners of the competition by year

	Year of the European Championships											
Indicators	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	
The number of participants in the European Championship among the cadets	10	8	10	10	9	8	10	9	10	10	10	
The number of athletes who won prizes at the European Championship among cadets	4	5	7	5	2	7	6	7	5	5	9	
The number of participants who continued their careers and took part in competitions among juniors	7	6	4	5	6	3	7	7	5	8	8	
The number of athletes who won prizes in competitions * among juniors	3	3	1	5	5	2	6	5	3	4	6	
The number of participants who continued their careers and took part in competitions among adults	5	3	4	5	6	4	8	6	6	9	8	
The number of athletes who won prizes in competitions * among adults	2	3	2	3	4	0	2	3	2	4	5	

Remark. \* - only winners of European and World Championships are considered.

Table 2
Distribution of the number of European Championship winners among cadets by year and their further achievements

	Year of the European Championships										
Indicators	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
The number of athletes who won prizes at the European Championship among cadets	4	5	7	5	2	7	6	7	5	5	9
The number of athletes who won the European Championship among cadets	1	3	3	5	2	3	4	4	2	3	4
The number of participants who continued their careers and took part in competitions among juniors	4	4	3	3	3	2	7	7	5	8	8
The number of athletes who won prizes in competitions * among juniors	3	3	1	3	3	1	5	5	3	4	6
The number of participants who continued their careers and took part in competitions among adults	4	3	3	4	4	3	7	6	6	7	8
The number of athletes who won prizes in competitions * among adults	2	3	2	3	3	0	2	3	2	4	5

Remark. \* - only winners of European and World Championships are considered.

a long-term plan for training athletes: how significant is the achievement of the result in cadet competitions, rather than simply participating in them. Table 2 shows the distribution by year of the number of European winners among the cadets; the number of participants and prize-winners in junior and adulthood.

As the analysis of the table shows, for more than 10 years every year, athletes won gold medals at the Cadet European Championships, which indicates a high level of training for the young generation from 2000 to 2010. The general trend is that a significant part of the medalists of the cadet competitions continued their careers at a junior age, and then in adulthood. It is worth noting that the distribution by year is uneven. For example, in 2005, out of 7 prize-winners (of which three are champions of the competition), only 2 continued their careers in junior age, 3 in adulthood, and did not win a single medal throughout their adult careers. While in 2010, out of 9 athletes, 8 continued their careers in adulthood and 5 athletes achieved results in an adult career.

In total, from 2000 to 2010, 50 female athletes won medals at the European Championship among cadets (17 of them won a gold medal), of which 34 (68,0%) continued their careers at a junior age and 33 (66,0%) – in an adult career. Of the athletes' data, 24 (48,0%) athletes achieved results in junior age and only 17 (34.0 – in adults they won medals.

It is worth noting that of all the participants, five athletes managed to take part in the Olympic Games, and one athlete (Stadnik, Mariya) won prizes in competitions of the highest level.

### **Conclusions / Discussion**

The significance of early sports achievements for high results

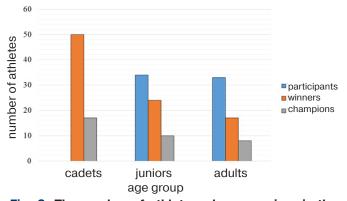


Fig. 2. The number of athletes who won prizes in the European Championship among cadets, and their further achievements in the junior and adult careers

in an adult career is revealed; for elite athletes, interconnected results at all stages of their own sports career.

An analysis of the subsequent sporting achievements of the participants of the European Championships among women's cadets in women's wrestling, who played for the Ukrainian team from 2000 to 2010, showed that 67,6% of the athletes became winners, and 22,9% were champions of the European Championships among cadets.

Of the 74 competitors, 42 (56,8%) athletes continued their career among adults, and 18 (24,3%) athletes achieved high results (won prizes in the European Championship or World Championship) in adult competitions. Among the 50 winners of the competition, 33 (66,0%) continued their careers in adulthood and 17 (34,0%) athletes achieved high results, five athletes managed to take part in the Olympic Games, and one athlete (Stadnik, Mariya) won prizes in top level competitions.

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