

Physical Status of Female Wrestlers Aged 14-15

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Abstract

Using conventional research methods in Physical Education and Sports, the article evaluated the physical fitness of female Freestyle Wrestling athletes aged 14-15. The results showed that the physical fitness of female athletes aged 14-15 was not good, the physical fitness of the majority of athletes was classified as Average and Fair, especially there were still a few athletes classified as below average physical fitness.

Keywords— professional fitness, female athlete, freestyle wrestling, age 14-15.

I. INTRODUCTION

Freestyle wrestling was introduced to Vietnam in the late 1970s. Due to its attractiveness in training and competition, freestyle wrestling has quickly developed widely in the northern region of our country. In recent years, freestyle wrestling has continuously won high rankings at the Asia Pacific tournaments, the Southeast Asian Wrestling Championships and at the Sea Games. Especially at the most recent Seagames, Women's Freestyle Wrestling has brought the Vietnamese sports delegation very noble medals such as the 24th Seagames held in Thailand, the Wrestling team won 8 gold medals, of which the Women's Freestyle Wrestling contributed 4 gold medals out of a total of 9 sets of medals, contributing to the overall success of the Vietnamese sports delegation. At the 25th Seagames held in Laos, the Women's Freestyle Wrestling team brought the Vietnamese sports delegation 1 gold medal, 2 silver medals, and at the 26th Seagames, the Women's Freestyle Wrestling team brought the Vietnamese sports delegation 1 gold medal, 2 silver medals. Especially at the 27th Seagames in Myanmar, the Women's Freestyle Wrestling team brought home 4 gold medals for the Vietnamese sports delegation.

Despite such proud achievements, there are still many limitations in the training of female Freestyle wrestlers, especially in terms of specialized physical

training. This is clearly shown when Vietnamese athletes perform in competitions. In the early stages of the competition, Vietnamese athletes can dominate athletes from other countries, but towards the end of the competition, their physical strength decreases, the effectiveness of movements, speed and frequency decrease significantly, leading to poorer overall results. Based on the above reasons, we conducted a study: "THE STATUS OF SPECIALIZED PHYSICAL STRENGTH OF FEMALE FREESTANDERS AGED 14-15".

Research method: the research process used the following methods: pedagogical testing and statistical mathematics.

The collected data were processed using SPSS 16 software.

II. RESEARCH RESULTS AND DISCUSSION

2.1. Developing standards for assessing the physical fitness of female Freestyle wrestlers aged 14-15

2.1.1. Comparing the physical fitness test results of female Freestyle wrestlers aged 14 and 15

In order to have a basis for building standards for assessing general physical fitness or for each age group, the topic compared the results of physical fitness tests of female Freestyle Wrestling athletes aged 14 and 15. The results are presented in Table 1.

Table 1. Comparison of physical fitness test results of female Freestyle wrestlers aged 14 and 15

| 3 | Test, index | Age 15 (n=22) | | Age 16 (n=18) | | t | P |
|----|--------------------------------------|---------------|------|---------------|------|--------|-------|
| | | x | DL | x | DL | | |
| 1 | 30m high start run (s) | 4.53 | 0.17 | 4.29 | 0.08 | 5.546 | <0.01 |
| 2 | 15 s(sl) | 14.68 | 1.39 | 15.92 | 0.28 | -3.699 | <0.05 |
| 3 | 1 minute prone push-up (sl) | 31.86 | 0.94 | 33.78 | 1.06 | -6.046 | <0.01 |
| 4 | On-the-spot long jump (cm) | 212.67 | 1.62 | 214.64 | 1.00 | -4.491 | <0.01 |
| 5 | 30s (times) | 15.05 | 1.05 | 16.78 | 1.06 | -5.181 | <0.01 |
| 6 | 30s (times) | 16.68 | 1.13 | 17.94 | 0.64 | -3.345 | <0.05 |
| 7 | 30s (times) | 26 | 1.31 | 28.06 | 0.73 | -5.848 | <0.01 |
| 8 | 1 minute (times) | 21.86 | 1.91 | 23.67 | 0.84 | -3.559 | <0.05 |
| 9 | 1 minute (times) | 24.77 | 1.15 | 26.89 | 1.18 | -5.076 | <0.05 |
| 10 | 1 minute (times) crawling (sl) | 25.91 | 0.87 | 27.78 | 0.88 | -6.709 | <0.01 |
| 11 | 1 minute (times) back bend (reverse) | 25.05 | 1.43 | 27.17 | 1.25 | -4.937 | <0.05 |
| 12 | Maximum continuous maximum ... | 5.77 | 0.16 | 5.25 | 0.15 | 10.481 | <0.01 |
| 13 | 30m high start run (s) | 16 | 1.45 | 17.17 | 0.79 | -3.065 | <0.05 |
| 14 | 15 s(sl) | 41.45 | 0.52 | 40.82 | 0.36 | 4.340 | <0.01 |

(Note: Degrees of freedom = 38, t₀₅ = 2.021)

From the results in Table 1, it can be seen that the difference in test results between the ages of 14 and 15 is statistically significant (with p <0.05). Thus, it is necessary to develop separate assessment criteria for each age group.

2.1.1. Testing the dispersion and representativeness of the average number of

physical fitness assessment tests of female Freestyle wrestlers aged 14-15

To ensure the scientific nature of the assessment criteria, the study tested the dispersion and representativeness of the average number of physical fitness assessment tests of female Freestyle Wrestling athletes aged 14-15. The results are presented in Table 2 and Table 3.

Table 2. Results of testing the dispersion and representativeness of the average number of physical fitness assessment tests of female Freestyle Wrestling athletes aged 14

| No | Test, index | Parameters | | | Shapiro-Wilk (W) |
|----|--------------------------------------|----------------------|------|------------|------------------|
| | | $\bar{x} \pm \delta$ | Cv | ϵ | |
| 1 | 30m high start run (s) | 4.53±0.17 | 3.75 | .036 | .839 |
| 2 | 15 s(sl) | 14.68±1.39 | 9.47 | .297 | .851 |
| 3 | 1 minute prone push-up (sl) | 31.86±0.94 | 2.95 | .201 | .807 |
| 4 | On-the-spot long jump (cm) | 212.67±1.62 | 0.76 | .345 | .848 |
| 5 | 30s (times) | 15.05±1.05 | 6.98 | .223 | .887 |
| 6 | 30s (times) | 16.68±1.13 | 6.77 | .241 | .891 |
| 7 | 30s (times) | 26±1.31 | 5.04 | .279 | .810 |
| 8 | 1 minute (times) | 21.86±1.91 | 8.74 | .407 | .837 |
| 9 | 1 minute (times) | 24.77±1.15 | 4.64 | .246 | .878 |
| 10 | 1 minute (times) crawling (sl) | 25.91±0.87 | 3.36 | .185 | .877 |
| 11 | 1 minute (times) back bend (reverse) | 25.05±1.43 | 5.71 | .305 | .826 |
| 12 | Maximum continuous maximum ... | 5.77±0.16 | 2.77 | .035 | .858 |
| 13 | 30m high start run (s) | 16±1.45 | 9.06 | .309 | .822 |
| 14 | 15 s(sl) | 41.45±0.52 | 1.25 | .111 | .849 |

Table 3. Results of testing the dispersion and representativeness of the average number of physical fitness assessment tests of female Freestyle Wrestling athletes aged 15

| No | Test, index | Parameters | | | Shapiro-Wilk (W) |
|----|--------------------------------------|----------------------|------|---------------|------------------|
| | | $\bar{x} \pm \delta$ | Cv | ε | |
| 1 | 30m high start run (s) | 4.29±0.08 | 1.86 | .018 | .818 |
| 2 | 15 s(sl) | 15.92±0.28 | 1.76 | .067 | .861 |
| 3 | 1 minute prone push-up (sl) | 33.78±1.06 | 3.14 | .250 | .839 |
| 4 | On-the-spot long jump (cm) | 214.64±1 | 0.47 | .236 | .844 |
| 5 | 30s (times) | 16.78±1.06 | 6.32 | .250 | .827 |
| 6 | 30s (times) | 17.94±0.64 | 3.57 | .177 | .788 |
| 7 | 30s (times) | 28.06±0.73 | 2.60 | .162 | .808 |
| 8 | 1 minute (times) | 23.67±0.84 | 3.55 | .166 | .838 |
| 9 | 1 minute (times) | 26.89±1.18 | 4.39 | .183 | .868 |
| 10 | 1 minute (times) crawling (sl) | 27.78±0.88 | 3.17 | .181 | .863 |
| 11 | 1 minute (times) back bend (reverse) | 27.17±1.25 | 4.60 | .294 | .824 |
| 12 | Maximum continuous maximum ... | 5.25±0.15 | 2.86 | .035 | .878 |
| 13 | 30m high start run (s) | 17.17±0.79 | 4.60 | .185 | .850 |
| 14 | 15 s(sl) | 40.82±0.36 | 0.88 | .086 | .888 |

The results in Table 2 and Table 3 show that the average and standard deviation of the tests ensure dispersion and representativeness, allowing them to be used to develop standards for assessing the professional physical fitness of female Freestyle Wrestling athletes aged 14-15.

2.1.3. Building standards for assessing the physical fitness of female Freestyle wrestlers aged 14-15

To ensure scientific validity, the research topic follows the process of determining evaluation standards including the following contents:

- Building a scale for the tests according to 10 points, through the C scale (10-point scale).

- Developing a comprehensive assessment standard for the physical fitness of female athletes aged 14-15: through the study, 14 tests were obtained to assess the physical fitness of female Freestyle wrestlers aged 14-15. Thus, the maximum score achieved by an athlete is 140 points, the minimum is 14 points. The project proceeds to develop a comprehensive assessment standard for the physical fitness of female Freestyle wrestlers aged 14-15 according to 5 levels: Good, fair, average, weak and poor and the distance between the levels is: $(X_{\max} - X_{\min})/5 = (140 - 14)/5 = 25.2$ (pts). The results of developing a comprehensive assessment standard for the physical fitness of female Freestyle wrestlers aged 14-15 are presented in Table 4.

Table 4. Comprehensive assessment standards for professional physical fitness of female Freestyle wrestlers aged 14-15

| No | Standard | Points (maximum 140 points) |
|----|----------|-----------------------------|
| 1 | Good | > 114.8 |
| 2 | Fair | 89.6 – 114.8 |
| 3 | Average | 64.4 – 89.5 |
| 4 | Weak | 39.2 – 64.3 |
| 5 | Poor | < 39.2 |

2.2. Current physical condition of female Freestyle wrestlers aged 14-15

To assess the physical fitness of female Freestyle Wrestling athletes aged 14-15, the project conducted tests on athletes aged 14-15 in provinces,

cities and sectors with strong Wrestling movements in the North through 14 selected tests (as presented in Tables 2 and 3). At the same time, the test results were

compared with the comprehensive assessment criteria (Table 4) to classify the physical fitness level of female athletes. The results are presented in Table 5.

Table 5. Current status of physical fitness classification of female Freestyle wrestlers aged 14-15

| No | Classification | Age 14 (<i>n</i> = 17) | | Age 15 (<i>n</i> = 16) | |
|----|----------------|-------------------------|---------|-------------------------|---------|
| | | <i>m_i</i> | Tỷ lệ % | <i>m_i</i> | Tỷ lệ % |
| 1. | Good | 3 | 17.65 | 3 | 18.75 |
| 2. | Fair | 4 | 23.53 | 3 | 18.75 |
| 3. | Average | 7 | 41.18 | 8 | 50.0 |
| 4. | Weak | 3 | 17.65 | 2 | 12.50 |
| 5. | Poor | 0 | 0 | 0 | 0 |

From the results in Table 5, it can be seen that the majority of female athletes in both the 14 and 15 age groups have an average physical fitness level (accounting for 41.18% in the 14 age group and 50.0% in the 15 age group), the rate of good and excellent is not high (good accounts for 7.14%, good accounts for 35.71%); At the same time, the athletes with poor physical fitness level account for a relatively high rate (accounting for 17.65% in the 14 age group and 12.50% in the 15 age group).

The above results show that the physical fitness level of female athletes is not high, and the physical fitness training for female Freestyle Wrestling athletes in the 14-15 age group is not good.

III. CONCLUSION

The majority of female athletes in both the 14 and 15 age groups have an average physical fitness level (accounting for 41.18% in the 14 age group and 50.0% in the 15 age group), the rate of good and excellent is not high (good accounts for 7.14%, good accounts for 35.71%); At the same time, the rate of athletes with poor physical fitness is relatively high (accounting for 17.65% in the 14 age group and 12.50% in the 15 age group). The above results show that the physical fitness level of female athletes is not high, and the physical fitness training for female Freestyle Wrestling athletes in the 14-15 age group is not good.

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