

EVALUATION OF EFFICIENCY OF GENERAL PHYSICAL STRENGTH DEVELOPMENT EXERCISES FOR PEOPLE'S POLICE ACADEMY FEMALE STUDENTS ACCORDING TO STANDARDIZED PHYSICAL HEALTH CRITERIA BY MINISTRY OF PUBLIC SECURITY

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Abstract:

By using the common scientific research methods of interview with experts, managers and teachers, the study has selected a system of exercises for general physical strength development for female students of the People's Police Academy. Results of the exercise application show the efficiency in general physical strength development for female students of the People's Police Academy according to the standardized physical health criteria by the Ministry of Public Security.

Key words: Selection, exercises, general physical strength, female students, People's Police Academy...

INTRODUCTION

The inspection and evaluation of physical training according to the standardized physical health criteria in the Academy have conducted periodically to ensure compliance with regulation, the results show that the physical strength of numerous female students is only at average degree and some contents have not met the standards of physical training by the Ministry of Public Security. Consequently, the development of general physical strength for students of the People's Police Academy in general and the female students in particular according to the standardized physical health criteria is necessary and current affairs.

RESEARCH METHODS

The research has used five methods, including document analysis and synthesis, pedagogical observation, interview and discussion, pedagogical experiment; mathematical statistics.

RESULTS AND DISCUSSION

1. Selection of exercises for general physical strength development for People's Police Academy female students

1.1. Determination of exercise groups to develop general physical strength for People's Police Academy female students

By interview, 16 professional teachers and managers have selected 8 out of 10 forms of exercises for improving the general physical strength for female students. They are speed development exercises (accounting for 75%), strength development exercises (accounting for 100%), endurance development exercises (accounting for 87.5%), supporting exercises (accounting for 81.25%), improving basic exercises (accounting for 81.25%), skillful basic exercises (accounting for 75%), competition exercises (accounting for 81.25%), movement games (accounting for 100%). The forms of exercises are very common and appropriate to the practical conditions at the People's Police Academy.

1.2. Selection of general physical strength development exercises for People's Police Academy female students

We have conducted interviews with 16 professional teachers and managers to select exercises for improving the general physical strength of the subjects. As a result, we have developed 19 general physical strength development exercises with high agreement and number of votes with a total score over 60 points to put into practice, included:

1. 30m standing start run (sec) x 3

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performances, 90-95% intensity, 1- minute break between each performance

2. 100m standing start run (sec) x 3 performances, 90-95% intensity, 1.5- minute break between each performance

3. Fast high knee run in place for 10 seconds x 3 performances, 90-95% intensity, 1- minute break between each performance

4. 60m standing start run (sec) x 3 performances, 90-95% intensity, 1.5- minute break between each performance

5. 30 - 40cm continuous standing jump x 3 performances, 90-95% intensity, 1.5- minute break between each performance

6. 800m run (min), one performance, 70-80% maximum intensity

7. 400m interval run x 3 performances, 70-80% intensity, 1- minute break between each performance

8. Capture the ball, play for 15 minutes

9. Flexible stretching exercises for 5 minutes

10. Jump rope for 30 seconds x 3 performances, 80-85% intensity, 1- minute break between each performance

11. Volleyball games with 6 players, play for 15 minutes

12. Lie on back with knees bent to sit for 30 seconds x 3 performances, 90-95% intensity, 1- minute break between each performance

13. 4x10m shuttle run (sec) x 3 performances, 90-95% intensity, 1- minute break between each performance

14. Police arrests spy, play for 15 minutes

15. Standing long jump 5 times x 3 performances, 90-95% intensity, 1- minute break between each performance

16. Ball rolling, play for 15 minutes

17. Capture the flag, play for 15 minutes

18. Tug of war 3 times x 3 performances, 2- minute break between each performance

19. Cat and mouse games, play for 15 minutes

2. Application and evaluation of efficiency of general physical strength development exercises for People's Police Academy female students

2.1. Selection of tests to evaluate general physical strength level for People's Police

Academy female students

We have selected 3 tests from the standardized physical health criteria by the Ministry of People's Security most recently applying for the People's Public Security Forces. The contents of tests base on the recent regulation on physical strength examination and classification by the Ministry of Public Security (issued together with Circular No. 24/2013/TT-BCA dated April 11, 2013). Specific tests include standing long jump (cm); 100m standing start run (sec) and 800m run (min). They reflect the correlation and necessary confidence on the subjects of female students from the first to third year at People's Police Academy.

2.2. Experiment

To clarify the effectiveness of general physical strength development exercises for first-year female students in People's Police Academy, we have used the method of pedagogical experiment. The participants were 49 female students randomly divided into 2 groups of 24 and 25 students. The experiment is conducted during 3 months with 12 weeks and 3 training sessions per week on extra-curricular time, the duration for each training session is 40 to 45 minutes at the end.

+ In the control group: The main training content is the common physical strength development exercises regularly applied during the curricular time of female students. The characteristics of these exercises are light athletic exercises and exercises with equipment.

+ In the experimental group: To develop the general physical strength, the content and form of training exercises selected and applied by us. We have carried out the reasonable experimental procedure for first-year People's Police Academy People's Police Academy on 5 bases. They include the extra-curricular plan of female students, course 38 in People's Police Academy, the level of general physical strength under the female standardized physical health criteria for the subjects, the purpose, requirement and number of exercises to build the experimental procedure, the compliance of the alternating principle between easy to difficult exercises as building experiment.

Table 1. General physical strength test results from control and experimental groups before experiment

No.	Test	Control group (n = 24)	Experimental group (n = 25)	Comparison	
				t	p
1.	Standing long jump (cm)	159.01±14.32	158.87±13.22	0.67	> 0.05
2.	100m standing start run (sec)	19.57±2.76	19.33±2.63	0.96	> 0.05
3.	800m run (min)	4.86±1.12	4'66±1.27	0.72	> 0.05

Table 2. Comparing results of general physical strength tests by experimental and control groups after experiment

No.	Test	Control group (n = 24)	Experimental group (n = 25)	Comparison	
				t	p
1.	Standing long jump (cm)	161.34±16.52	176.31±16.32	3.19	< 0.01
2.	100m standing start run (sec)	17.76±2.83	16.12±2.63	2.09	< 0.05
3.	800m run (min)	4.66±1.27	3.45±1.12	3.53	< 0.01

Finally, the number of repetition of exercises depends on the specific task and the requirements of each training session.

2.3. Experimental results:

a, Results before experiment

We have evaluated the general physical strength of these subjects before experiment (Table 1)

Table 1 shows that the criteria of general physical strength of the two groups are similar. The difference is not statistically significant ($P > 0.05$). Thus, the pre-experimental clustering between the two groups is random and objective. Besides, as controlling the results before experiment with female general physical strength classification standards, the level of general physical strength by the subjects is low. There are 46 female students not meeting the general physical strength standards regulated by the Ministry of Public Security.

b, Results after experiment

After 3 months of experiments, we have conducted a test of general physical strength by the two groups. The results presented in Table 2.

Based on the Table 2, the results of general physical strength tests after 3- month experiment by the two groups have remarkable difference at all tests with $t_{\text{calculation}} > t_{\text{table}}$ ($p < 0.05$ to $p < 0.01$). This proves that the selected exercises for first-year female students in the People's Police Academy have been much more effective than the recently applied exercises.

As controlling the results after experiment with female general physical strength classification standards, 100% students of the experimental group gain "Qualified" or upper classifications and higher than the control group (accounting for 83.33 % gain "Qualified" or upper classifications). In addition, the growth rate reflects good results in both groups. However, the experimental group has a higher growth rate than the control group from 1.61 to 22.37%.

CONCLUSION

By interviewing the teacher and professional managers, the research has selected 19 exercises to develop the general physical strength for female students in the Academies of Public Security Forces. Pedagogical experiments have proven that exercises have effective on improving the general physical strength for the first- year female students after 3 months.

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(Received 30/10/2017, Reviewed 18/11/2017,

Accepted 28/11/2017

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