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Songjian Du  
*Zhengzhou University*

Zhendong Zhang  
*Zhengzhou University*

Yingping Huang  
*Zhengzhou University*

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## Experimental Research of Body Functional Training on Promoting Physical Quality of College Students

Songjian Du<sup>a</sup>, Zhendong Zhang<sup>a</sup>, Yingping Huang<sup>a</sup>

<sup>a</sup>Zhengzhou University

### Abstract

After being introduced into China, body functional training has been widely applied to the training of high-level athletes (Wang & Liu, 2014; Cui & Qiu, 2013). However, it is still in the exploratory stage in college teaching. In this research, body functional training was designed for the physical characteristics of ordinary college students, and the physical health status of students was monitored in order to understand the promoting effect of body functional training on college students' physical quality. It also provides theoretical and data support for the continuous improvement of body functional training courses. The research process was approved by the institutional review board of Zhengzhou University. Participants were 50 freshmen (non-physical education major, 17-19 years) enrolled into a college in central China. Among them, 25 students (13 female students and 12 male students) were selected as one group. The experimental group and the control group were given body functional training and normal physical exercise for 12 weeks (2 times a week, 1 hour each time), while the other physical activities of each group were the same. Physical fitness test and physical fitness item test were conducted before and after the experiment. SPSS 22.0 statistical software was used to conduct paired T-test on the data before and after the experiment, and independent sample T-test was conducted on the data before and after the experiment. In terms of physical health, there was no significant difference in body weight and forced vital capacity in the control group ( $P > 0.05$ ), but significant change in body weight ( $P < 0.05$ ) and significant increase in FVC ( $P < 0.01$ ) were observed in the experimental group. From the perspective of physical fitness, the results of the control group showed an improvement trend but not reached a statistical significance ( $P > 0.05$ ), while the flexibility of the experimental group showed a very significant change ( $P < 0.01$ ), the strength of lower limbs and upper limbs increased significantly ( $P < 0.05$ ), and the endurance improved significantly ( $P < 0.05$ ). The differences between the experimental group and the control group were statistically significant. Body functional training can improve the physical fitness of college students and has a positive effect on improving their physical fitness. In addition, body functional training can be used as an effective training method in college physical education. However, due to the limited of time and ability, experiments were conducted for only 12 weeks, future researchers could make more detailed studies on this training method.

*Keywords:* body functional training, college students, physical quality