the blood pressure, heart rate, and respiration of the human body. The experimental group participating in the special sports training was significantly shorter than the control group in the recovery time of exercise center rate, respiration stabilization time, and blood pressure stabilization time ($P < 0.05$).

Conclusions. Physical exercise is of great significance to the healthy development of people's physical and mental health. Long-term professional sports training can effectively improve people's various physical functions and ensure that people have a strong mental state. In the experimental test, the autonomic nerves of the students in the professionally trained experimental group were effectively regulated, and the recovery time of each functional test was shorter than that of the control group.

Table 1. Shows the detection results of autonomic nerve function characteristics during exercise in the two groups

Group type	Exercise heart rate recovery time	Exercise breathing recovery time	Exercise blood pressure recovery time
Experimental group (80)	4.56 ± 1.25	5.23 ± 1.35	5.56 ± 1.12
Control group (80)	6.25 ± 1.35	8.26 ± 1.75	7.25 ± 1.48
t	8.215	12.261	8.144
P	<0.05	<0.05	<0.05

A study of positive intervention of music therapy and neurofeedback on negative emotions and attention in college students

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Background. Anxiety, tension, sadness, anger, and other emotions are collectively referred to as negative emotions, which can bring negative emotional experiences, make the body feel uncomfortable, and even affect normal work and life. At present, the proportion of college students suffering from negative emotions is relatively high, which has become a focus of the society. Negative emotions can lead to problems such as memory deterioration and attention impairment. Based on the characteristics of (Electro-EncephaloGram) EEG signals, the study analyzed the improvement effect of music neurofeedback training on college students' negative emotion and attention state.

Subjects and Methods. This research reaches a cooperation with a well-known university in China, and randomly selects 250 students from the School of Electrical Engineering of the university. Then, the Positive and Negative Affect Scale (PANAS) was used for evaluation, and 60 students with PANAS scores of more than 20 were selected as experimental subjects. Then 50 students were divided into two groups, namely, the test group and the control group, with 40 students in the experimental group and 10 students in the control group. Among them, the experimental group includes 20 people in the music stimulation group and 20 people in the nerve feedback group. The music stimulation group and nerve feedback training group were stimulated for 5 minutes each time, and then took a rest for 2 minutes. After resting twice, EEG signals were collected for 2 minutes. The test period was 2 weeks. The control group did not receive any stimulation or training, and the EEG signal acquisition method and time were consistent with the experimental group. At the end of the test cycle, the PANAS scale is used again for evaluation.

Results. Table 1 shows the change of PANAS (negative) scores of the two groups of college students before and after the test. The results showed that the PANAS scores of students in the experimental group under nerve feedback and music stimulation decreased significantly after the experiment, and the difference before and after the experiment was statistically significant ($P < 0.05$). The PANAS score of the control group decreased, but the change was not statistically significant ($P > 0.05$).

Conclusions. On the basis of analyzing the resting EEG signals of nerve feedback training and music stimulation, it is combined with the relative power and continuous coherence analysis method. The intervention effect of music neurofeedback training on college students' negative emotion and attention state was studied from the aspects of EEG signal and scale evaluation with the help of self-measurement scale. The results showed that the negative emotions of college students under the stimulation of nerve feedback and music were significantly relieved compared with those before the intervention, indicating that this method is an effective tool to regulate negative emotions and cognitive attention, and has certain clinical application value.

Table 1. The change of PANAS (negative) scores of the two groups of college students before and after the experiment

Classification	Test group		Control group
	Neurofeedback	Music stimulation	No stimulation
Before experiment	23.53±4.87	23.37±4.01	23.45±3.59
After experiment	14.67±3.28	15.03±3.61	21.86±3.70
t	5.89	5.60	1.04
P	0.00	0.00	0.32

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