Contemporary college students have great learning pressure. Due to the lack of timely and effective elimination of these pressures, students have psychological problems, such as anxiety, anxiety and anxiety, which affect the normal development of students’ learning and life. For example, college vocal music students have singing anxiety and stage performance anxiety in the process of vocal music learning. They are afraid to sing in front of others, and they are afraid that the teacher will criticize themselves because of their poor singing, and they may also be ridiculed by the students. Because the expectation of their singing effect is too high, resulting in anxiety. Before the relevant stage performance, due to lack of self-confidence, they have fear, feel that their stage performance ability is not good, and have anxiety. According to the anxiety psychology of college vocal music students, this paper reforms the vocal music teaching in colleges and universities, and studies its influence on the improvement of students’ anxiety psychology.

Objective: To reform vocal music teaching in colleges and universities by comprehensively mastering the anxiety psychology of vocal music students in colleges and universities. Through stage performance psychological training and regulation, vocal music students' anxiety can be controlled and alleviated, and students’ self-confidence can be improved. Students can appropriately use some small skills to alleviate their tension, such as drinking some warm boiled water before the performance to alleviate dry mouth and tongue. By asking vocal music students to summarize their stage experience, analyze their shortcomings, and check and make up for deficiencies, so as to avoid anxiety caused by high expectations.

Research objects and methods: The research objects are students majoring in vocal music in school. 200 students majoring in vocal music are randomly selected from three universities. These students come from different schools and grades, their personality characteristics are different, there is a gap in family economic situation, and their vocal music learning level is different. Understand their views on vocal stage performance and vocal singing and relevant teaching suggestions. The principal component analysis method is used to analyze the relevant factors to study the influence of the reformed vocal music teaching mode on the anxiety psychology of vocal music students. The relevant influencing factors are quantified by grade 0-4. The higher the score, the greater the impact. The relevant data are processed and analyzed by Excel software and SAS software.

Results: The anxiety of college students is a common psychological problem. Affected by the environment and students’ personality characteristics, the degree of anxiety of students is different. For students majoring in vocal music, their anxiety psychology is mainly manifested in singing anxiety and stage performance anxiety. Due to the lack of self-confidence, excessive pursuit of perfection and insufficient stage preparation, vocal music students have anxiety, which seriously affects their learning enthusiasm and initiative, and has a certain negative impact on their physical and mental health. After the reform of vocal music teaching mode, the self-confidence of vocal music major has been improved, the self-awareness is more accurate, and the learning level has been significantly improved. Among the effects of the reformed vocal music teaching mode on the anxiety psychology of vocal music majors, stage performance psychological training and regulation have the greatest impact on the anxiety psychology of freshmen majoring in vocal music, with a score of 4 points. See Table 1 for the specific results.

Table 1. The influence of the reformed vocal music teaching mode on the anxiety psychology of vocal music majors

<table>
<thead>
<tr>
<th>Grade</th>
<th>Stage performance psychological training and regulation</th>
<th>Stage experience summary</th>
<th>Teachers’ emotional regulation</th>
<th>Strengthen music sense training</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman</td>
<td>4</td>
<td>4</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Sophomore</td>
<td>3</td>
<td>4</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Junior</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

Conclusions: Through the reform of vocal music teaching mode in colleges and universities, the learning efficiency of vocal music students is greatly improved, the anxiety psychology of students is significantly improved, and the music sense of students is continuously enhanced.

* * * * *
Dacheng Xu
Sports institute, Inner Mongolia Minzu University, Tongliao 028000, China

Background: Cognition is the brain’s comprehensive perception of external things, mainly including psychological processes such as execution, perception, thinking, attention, memory and judgment. Cognitive function is mainly reflected in executive function, attention and memory. Memory refers to the neural process of storing and extracting information or experience in the brain. It is the first aspect of cognitive decline, and memory decline is the main symptom of patients with cognitive impairment. Mild cognitive impairment is a precursor of dementia. It is an intermediate state between dementia and healthy aging. It is one of the main health problems caused by the aging of the world population. At present, the incidence rate of global cognitive impairment is increasing year by year, and is becoming younger and younger. The prevalence of cognitive impairment in European and American developed countries ranges from 1% to 6%, and in China, the prevalence among people over 60 years old ranges from 8.3% to 35.9%. Research shows that the proportion of cognitive impairment transformed into dementia within three years is about 39%, while the proportion of normal people is less than 1%. The average treatment cost of dementia patients in China accounts for about 40% of family income, which is far greater than that of non-dementia patients. Therefore, patients with cognitive impairment will cause a serious economic burden on their families, and then evolve into a major global social problem. In addition, the mental and behavioral symptoms caused by cognitive impairment will also lead to the impairment of patients’ social ability and life ability, which will seriously affect the lives of patients and their families. Some studies have pointed out that mild cognitive impairment can return to normal under certain conditions, and once it turns into dementia, the damage to the nerve will not be reversed. Strengthening the early intervention of patients with cognitive impairment is of great significance to prevent the further deterioration of the disease.

Research shows that sports track and field training can effectively improve students’ cognitive impairment symptoms. In the past track and field teaching, the teachers’ usual training principle is high training amount and low training intensity. However, in the actual results, the traditional training mode has not achieved good results, and cannot effectively improve the symptoms of students’ cognitive impairment. Students’ long-term experience of such training will lead to students’ muscle injury, which cannot really give full play to their own characteristics. In serious cases, it will lead to extreme fatigue of the nervous system, and even affect the students’ motor nervous system, resulting in serious psychological trauma and even confusion of consciousness and consciousness, which is very dangerous for students.

Objective: In the physical education of colleges and universities in China, track and field sports are of great significance to improve the sports level and physical and mental health development of college students, and can promote the overall improvement of college students’ physical and mental quality. At the same time, in track and field teaching in colleges and universities, training quantity and training intensity are two important factors, which directly affect students’ training effect and psychological quality. This study mainly analyzes the relationship between the intensity of track and field training and the amount of training in colleges and universities, and provides suggestions for improving students’ track and field training effect and mental health.

Research objects and methods: 300 college students with cognitive impairment were selected as the research object. The teaching mode was optimized after the training intensity and training amount. The teaching time lasted for 3 months. After the teaching was completed, the relief of cognitive impairment symptoms of college students before and after teaching was analyzed.

Study design: After optimizing the teaching mode of training intensity and amount, evaluate the improvement of cognitive impairment symptoms of subjects. The evaluation methods mainly include invalid, effective and obvious effect. The invalid is that the students’ mental state is not improved, and the effective cognition, emotion and will are improved. The obvious effect is that cognition, emotional behavior and will are significantly improved. Total effective rate = (effective + remarkable) / total number of people × 100%.

Methods: The relevant data were analyzed by Excel and SPSS20.0 software for calculation and statistics.

Results: After teaching and test, the improvement rate of symptoms reached 89.0%, which has a high effect and application value.

Table 1. Statistics of improvement effect after teaching

<table>
<thead>
<tr>
<th>Time</th>
<th>Invalid</th>
<th>Effective</th>
<th>Remarkable effect</th>
<th>Total effective</th>
</tr>
</thead>
<tbody>
<tr>
<td>After teaching</td>
<td>33</td>
<td>105</td>
<td>162</td>
<td>267 (89.0%)</td>
</tr>
</tbody>
</table>

Conclusions: Track and field training can not only effectively promote students’ physical and mental development, but also develop students’ thinking ability. In order to better strengthen the intensity and
training amount of students’ track and field sports, teachers need to formulate a scientific and reasonable teaching plan, and cannot blindly strengthen the training of students and increase the training amount. Therefore, teachers should understand the physical condition of each student, formulate appropriate training plans according to the actual situation of students, reasonably grasp the training intensity and amount, and arrange students to train in a planned way. In addition, teachers should make corresponding improvements to the problems in the teaching process, so as to improve the teaching quality and promote the healthy and all-round development of students’ bodies and minds.

* * * * *

**PROMOTING EFFECT OF COPING STRATEGIES OF COAL MINE SAFETY STANDARDIZATION MANAGEMENT ON THE IMPROVEMENT OF EMPLOYEES’ COGNITIVE IMPAIRMENT**

Meng Li

*Department of Safety Supervision and Management, Chongqing Vocational Institute of Safety & Technology, Chongqing 404000, China*

**Background:** Cognitive impairment is a common clinical symptom in psychosis. It is a key entry point for the early diagnosis of dementia and can provide a key basis for the early prevention of dementia. Mild cognitive impairment mainly refers to mild memory or other cognitive impairment beyond the allowable range of their age, but it does not meet the diagnostic criteria of dementia. Patients with cognitive impairment have normal activities of daily living, but the etiology cannot be explained by known neurological and mental diseases. They are in an intermediate transition state between aging and early dementia. At present, cognitive impairment has attracted more and more scholars’ attention at home and abroad. Research shows that mild cognitive impairment can be divided into four subtypes: forgetting type, multi cognitive domain forgetting type, single non-memory type and multi cognitive domain non-forgetting type. In the field of epidemiology, 40% of the patients with cognitive dysfunction develop dementia, and the incidence rate is 10 times that of normal people. It indicates that patients with cognitive impairment are the high-risk group of dementia. The conversion rate of cognitive impairment into dementia will increase significantly with the extension of time. The conversion rate within 1 year of initial diagnosis will be 10%-15%, and will reach more than 55% within 4-5 years. Therefore, the early prevention of cognitive impairment is particularly critical. Some scholars pointed out that cognitive impairment is divided into seven clinical stages from normal cognition to very severe dementia, and pointed out that the diagnosis of dementia should be extended to preclinical and cognitive impairment. In addition, cognitive impairment is also associated with dementia, indicating that the early diagnosis and treatment of dementia is beginning to become promising. Research shows that the standardized management of enterprises is conducive to improving the symptoms of cognitive impairment. At present, the safety and quality standardization management of domestic coal mining enterprises must comply with laws, regulations, rules and regulations, including coal mining, excavation, electromechanical, transportation, ventilation, water prevention and other production links of the mine, as well as the safety and quality work of relevant posts, so as to keep the coal mine in a good state of safety production, to ensure the safety of miners’ lives and the modernization of coal industry. Focusing on the basic work of coal mine safety, relevant national safety departments have introduced a series of laws, regulations and rules, which provide a legal basis for in-depth coal mine quality standardization, effectively curb illegal mining and illegal production, and provide a basis for coal mine quality standardization.

**Objective:** The nature of coal mine safety quality standardization mainly includes scientific, mandatory, operable, comprehensive and developable. Therefore, it must be formulated according to the psychology of staff. This study mainly discusses the impact of coal mine safety standardization management on patients with cognitive impairment in enterprises, in order to provide suggestions for improving the symptoms of cognitive impairment.

**Research objects and methods:** 120 employees with cognitive impairment in 6 coal mining enterprises were selected as the research objects. The research objects were subject to coal mine safety standardized management. After 2 months, the relief of cognitive impairment symptoms of the subjects was observed.

**Research design:** Before and after the standardized management of coal mine safety, the Mini-Mental State Examination (MMSE) was used to evaluate the improvement of cognitive impairment symptoms, including memory, attention, understanding and time orientation. The total score was 0-30. The higher the score, the stronger the ability.