

schizophrenia symptoms. Each outbreak of depression, lasting at least 2 weeks, a year, or even a few years, most cases have a tendency to attack repeatedly. Electroacupuncture has a good clinical effect on depression and digestive dysfunction, and has the advantages of quick onset and less adverse reactions. The aim of this study was to investigate the effect of electroacupuncture on the effects of somatostatin (SS) and gastrin (GAS) in chronic stress depression rats and the mechanism of improving the digestive dysfunction in depression rats.

**Subjects and methods:** (1) Animal grouping and model replication: 30 healthy male SD rats (provided by Weitong Lihua Laboratory Animal Technology Co., Ltd., clean grade) with body mass of 160-180 g. Each cage 5, free diet, natural light, adaptive feeding 1 week. Then randomly divided into 3 groups: normal group, model group, electro-acupuncture group, each group 10. Except the normal feeding group, the other rats were reproduced by chronic stress combined with solitary feeding after adaptive feeding. A variety of chronic stress programs are randomly arranged as follows every day: Fasting for 24 hours, water deprivation for 24 hours, day and night reversing for 24 hours, tail clipping for 3 minutes, restraint for 3 hours, cold water swimming for 10°C for 5 minutes, electric shock on the sole (voltage is 30 V, electric shock for 5 S, intermittent 5 S for 300 S), each stimulation for 3 times, total 21 days. (2) Electroacupuncture method: select “Yintang” point and “Baihui” point, and use HANS LH202 electroacupuncture instrument (Beijing Huawei Industrial Development Company) to conduct electroacupuncture 1 hour before stress stimulation every day. Needle insertion direction two relative, flat needle insertion, needle insertion depth of 0.5-1 cm, electroacupuncture frequency of 2 Hz, current intensity of 0.6 mA, 20 minutes each time, once a day, a total of 21 d electroacupuncture. Because the points of “Baihui” and “Yintang” are close to each other, we should pay attention to avoid short-circuit in electro-acupuncture. (3) Determination of peptide hormones in cerebrotectal tract: After the end of the experiment, the blood of rats was collected quickly by cutting off the head and injected into the test tube. After coagulation, 4°C, 4000 L/min was centrifuged for 10 minutes, the serum was isolated and -70°C was preserved. At the same time, the brain was quickly stripped off in the ice bath, and the hypothalamus was immediately weighed, then boiled in the boiled 9.0 mL/L sodium chloride solution 1-2 mL for 3 minutes, then cooled and homogenized in a homogenizer with 1 mol/L acetic acid 0.5 mL, neutralized with 1 mol/L NaOH 0.5 mL, and 4°C centrifuged with 3 500 L/min. The supernatant was taken in 20 mins and stored under -70°C. The contents of hypothalamus SS and serum GAS were determined by radioimmunoassay according to the directions of kit. (4) Statistical methods: All experimental data shall be represented by the mean ± standard deviation ( $\bar{x} \pm s$ ) and shall be processed by SAS statistical software. In the significance test, the analysis of factorial design analysis of variance, one-way analysis of variance and Duncan test were used to compare the mean between groups,  $P < 0.05$  was statistically significant.

**Results:** The experimental results obtained for group 3 hypothalamic SS and serum GAS are shown in Table 1.

**Table 1.** Statistical results (pg/mL,  $\bar{x} \pm s$ )

| Group             | Hypothalamic ss | Serum gas    |
|-------------------|-----------------|--------------|
| Normal group      | 95.15±27.56     | 79.43±9.58   |
| Model group       | 46.37±9.85      | 168.05±21.94 |
| Electro pin group | 80.65±20.40     | 85.32±13.08  |

Chronic stress can lead to the abnormal release of cerebral and intestinal peptide hormones, thus affecting gastrointestinal power, so patients with depression are usually manifested as loss of appetite, the body physiological metabolism disorders, resulting in a decline in body quality and malnutrition.

**Conclusions:** This study found that chronic stress caused a significant decrease in rat hypothalamic SS and significantly higher serum GAS, while electro needle treatment effectively elevated hypothalamic SS and reduced serum GAS content, correcting this abnormal secretion. This regulation of the release of the brain gut peptides, SS and GAS, may be one of the pathways for the electric needle to improve digestive function in a depressed state of rats.

**Acknowledgement:** The research is supported by: 2018 Jiangxi Province Department of Education Science and Technology Research Project “Huangsiyujin on Parkinson’s disease model rats’ brain intestine a-syn expression research” (No. GJ181581).

\* \* \* \* \*

## THE EFFECT OF DISTANCE INTERACTIVE EDUCATION SYSTEM ON STUDENTS

## WITH COGNITIVE IMPAIRMENT

Jiaosheng Yan<sup>1</sup>, Kechun Chen<sup>1</sup>, Qian Zhang<sup>2</sup>, Shuai He<sup>3</sup> & Qian Cai<sup>2</sup>

<sup>1</sup>*Department of Special Education and Public Service, Yunnan Vocational College for Special Education, Kunming 650504, China*

<sup>2</sup>*School of Economics and Management, Yunnan Normal University, Kunming 650000, China*

<sup>3</sup>*Huaneng Lancang River Hydropower Inc, Kunming 650214, China*

**Background:** In distance education, interactivity is an important factor determining the quality of education. Interactive activities directly affect the learning effect of distance courses. Modern distance teaching mode takes modern communication network as the supporting platform. It is an interactive self-learning mode. It is the mainstream of future teaching mode. The selection and application of interaction mode is a key part of distance education curriculum teaching design, which needs the joint participation and design of educators and courseware developers. Interactive technology is developing rapidly. The emergence and application of new technology promote the transformation of interactive mode and the strengthening of interactivity in distance education. The interactive evaluation of distance education activities is an important aspect to measure the quality of distance education process. It can be evaluated and analyzed from many aspects, such as the social essence of education, educational effect and educational objectives, courseware, educators and learners. Modern distance education has the characteristics of separation of teaching and learning. Educational interaction activities are re integrated in the situation of separation of time and space. It has a conscious and active interaction consciousness in the remote state, as well as convenient, flexible, reliable and effective interaction means. In distance education, interactivity is an important factor determining the quality of education. Interactive activities directly affect the learning effect of distance courses. Modern pedagogical theory and learning theory believe that interactive conversation in the process of social interaction is conducive to learning. In modern distance interactive education, learners can make learning progress and learning arrangement according to their personal learning situation, combined with their existing cognitive level and professional foundation, and make random adjustment through autonomous behavior. Learning activities are self-controlled by learners, who control the way, progress, strategy and content of the learning process. In interactive education, learners can be fully encouraged, find problems, clarify goals, and easily obtain suitable learning contents, methods, approaches and strategies through the inspection, understanding and confirmation of their past and present learning situation through corresponding interactive activities. All these reflect the superiority of educational interaction. The design of teaching activities based on the interactive mode of distance education should grasp the following principles and requirements: First, it should be learner centered. The development and implementation of distance education curriculum and teaching process should obey and serve learners' learning activities and promote learners' learning. Second, we should give full play to the leading role of teachers and the auxiliary role of technical managers as much as possible. Third, we should give full consideration to the communication needs of learners and actively encourage their interpersonal communication in teaching activities. Fourth, timely feedback of teaching should be carried out as much as possible to form a good information transmission, collection and feedback system. fifth, the interaction should be timely, controllable and extensive.

**Objective:** Cognitive impairment refers to the pathological process of abnormal brain advanced intelligent processing related to the above learning, memory and thinking judgment, resulting in serious learning and memory impairment, accompanied by aphasia or apraxia, or agnosia or disability. Contemporary college students are under great pressure, generally have psychological problems, and more seriously suffer from cognitive impairment. Interactive education takes individualization as the core, takes the specific individual knowledge structure and cognitive level as the starting point of learning, and takes the learning procedure suitable for Taiwan learners' self-learning as the goal.

**Subjects and methods:** This study selects 10 weeks of distance interactive education teaching based on multi-mode setting as the intervention method to explore the impact of multi-mode setting of distance interactive education curriculum on students' anxiety response and its psychological mechanism. In order to provide theoretical and practical basis for promoting students' mental health and school curriculum, this study uses longitudinal follow-up research and psychological test method to select 100 college students from a school to participate in the experiment, including 50 in the experimental group and 50 in the control group. The experimental group carried out music literacy teaching and multi-mode teaching guidance, and the control group only carried out normal course teaching. The degree of students' psychological anxiety was tested with the self-anxiety scale, and the experimental design of repeated measurement was adopted. All data were processed using PASW 18.0 software package and Excel 2007.

**Results:** The mental disorders of the two groups of students before and after the experiment are shown in Table 1. As can be seen from Table 1, there was no significant difference in the degree of psychological

disorder between the two groups before the experiment. After the experiment, the degree of psychological disorder in the experimental group was alleviated, and the psychological disorder in the control group was not significantly improved.

**Table 1.** Comparison of obstacle status / number of people in the two groups before and after the experiment

| Group            | Before and after the experiment | Barrier free | Mild disorder | Moderate disorder | Severe disorder |
|------------------|---------------------------------|--------------|---------------|-------------------|-----------------|
| Experience group | Before the experiment           | 10           | 17            | 17                | 6               |
|                  | After the experiment            | 23           | 21            | 6                 | 0               |
| Control group    | Before the experiment           | 11           | 21            | 14                | 4               |
|                  | After the experiment            | 13           | 15            | 17                | 5               |

**Conclusions:** During college students' study in colleges and universities, how educators accurately understand their mental health problems and give them timely help and guidance has become an important task in college education reform. According to the above research results, it shows that we can appropriately alleviate students' cognitive impairment with the help of distance interactive education.

\* \* \* \* \*

## NATURAL LANDSCAPE PHOTOGRAPHY ON ANXIETY AND DEPRESSION IN OCCUPATIONAL POPULATION

Honghong Wang

*School of Literature and Education, Bengbu University, Bengbu 233000, China*

**Background:** Depression is a kind of negative emotional state with abnormal low mood. It brings very negative influence to people's study, work and life. Serious cases can lead to suicide. The incidence of depression in the normal population is increasing, which has become the main risk factor of affecting human health in the 21st century. Long-term depression is an independent risk factor for a variety of chronic diseases. By 2020, depression will be the second most common cause of disability in humans after cancer. For professional people, in recent years, survey found that almost half of people in a depressed state, the urgent need to strengthen psychological counseling. Studies have shown that depressive patients in the working-age group accounted for up to 72% of the disease, the average depressive patients caused by an annual economic loss of \$4900. Therefore, it is of great significance to understand the depression status of occupational population for the prevention and treatment of depression and ultimately benefit human society. But the natural scenery photograph is exquisite, elegant, impressive, compared with other types of photography, the natural scenery photography in the aesthetic value is more prominent, but also more important. Many landscape photographers don't like to have people in their pictures. They want to have pure, clean, uninterrupted natural scenery, the most primitive, purest kind of nature untouched by human behavior. Landscape photography is the author's taste, hobbies, ideal sustenance, is the natural beauty and social people have a certain relationship with the image of the embodiment. At the same time, because the photography cost is low and the technical request foundation is low, suits the different occupation crowd. Therefore, the study of natural scenery photography on occupational anxiety and depression of the status quo has a certain significance.

**Objective:** Natural scenery shooting to the famous mountains and rivers, Maolin Xiuzhu, still water deep, lakes and mountains, as well as wind and rain, neon clouds, frost fog and snow and all other weather phenomena as the main object. Natural scenery itself can shock and move people. Photographing natural scenery can show the magnificent momentum of natural scenery, deeply depict the subtle details of scenery, and alleviate people's psychological pressure, depression, anxiety and other negative emotions to a certain extent.

**Subjects and methods:** Cluster stratified sampling method in 2020 randomly selected 500 professional groups as the survey subjects, using questionnaire survey, 482 valid samples, 100% of the questionnaire back. Among them, 198 were aged 20-30, 223 were aged 30-40, and 79 were over 40. Occupational cadres, mainly workers, post management and clerks in two major categories, of which 252 manual workers, mental workers 248 people. Educational level in high school or above. There were 305 males and 195 females. The selected occupational groups were asked to complete questionnaires before and after the test. During the