

different learning situations. Teachers can also record video courses to help students review their knowledge after the course.

**Objective:** This paper analyzes the impact of college English online and offline mixed teaching on college students' anxiety, in order to improve college students' mental health level.

**Subjects and methods:** 100 college students with different degrees of anxiety were selected as the research object. They were divided into control group and experimental group by digital random grouping method, with 50 students in each group. The control group had normal English teaching, while the experimental group used English online and offline mixed teaching. The experimental period was 6 months. After that, the improvement of anxiety of the two groups was compared and analyzed. The State Trait Anxiety Inventory (ATAI) was used to analyze the anxiety of the two groups of students, and Support Vector Machine (SVM) was used to classify the improvement effect of college students' anxiety. As a standard of anxiety assessment, ATAI can measure the improvement of anxiety in the process of intervention. The improvement effect evaluation indicators are set as four levels: no improvement, slight improvement, improvement and obvious improvement. The improvement rate is the ratio of the number of people with slight improvement, improvement and obvious improvement to the total number of people. In order to avoid the influence of subjective factors on the research results, the average score of all subjects is taken as the final result.

**Methods:** This paper analyzes the influence of college English online and offline mixed teaching on college students' anxiety through NIOSA data statistical analysis software.

**Results:** Table 1 refers to the improvement rate of the two groups of subjects in the experimental cycle. It refers to the improvement rate of the two groups of subjects with statistical significance. It can be seen from the table that with the increase of experimental time, the improvement rate of patients in both groups increased, but the improvement rate of the experimental group was more significant. This shows that college English online and offline hybrid teaching can greatly improve college students' anxiety in the process of learning.

**Table 1.** Improvement rate of two groups of subjects in the experimental cycle

Group	After 1 month	After 3 months	After 6 months
Control group	56.0	58.0	68.0
Experience group	60.0	82.0*	88.0*

**Conclusions:** The anxiety and stress of college students have a bad impact on their normal life and study. All sectors of society and their families need to pay special attention to it. The results show that compared with normal English teaching, online and offline hybrid teaching has obvious advantages in improving college students' anxiety and stress, and can be applied in the management of psychological problems in colleges and universities.

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## EFFECT EVALUATION OF CHILDREN'S MENTAL HEALTH EDUCATION IN PRESCHOOL EDUCATION STAGE

Li Liu

*Xinxiang University, Xinxiang 453000, China*

**Background:** With the increase of national attention to quality education, mental health has become more and more important. Mental health education is also called psychological education. It carries out comprehensive activities according to the objective development law of psychology and body, and establishes students' good psychological quality through psychological education methods. Mental health is a very broad concept, which shows a very good state of internal and external regulation at the macro level. It involves not only the stability of the internal environment, but also the dynamic adaptability of the external environment. For people with different life cycles, mental health standards have certain heterogeneity, but this difference is quite different. As an important period of mental health development and physiological function development, early childhood is also an important stage for them to determine their correct outlook on life and positive attitude towards life. Only with basic living ability, healthy living habits and good physical quality can we promote the healthy growth of children's body and mind. Children's mental health problems are psychological obstacles caused by excessive psychological conflict, poor

adaptability and physiological dysfunction. The common children’s mental health problems are ADHD, social behavior problems, personality and emotional problems, neurological disorders, bad habits and learning problems.

Based on the analysis of children’s mental health problems in preschool education, this paper puts forward a new educational path, which is as follows. First of all, mental health education has been gradually infiltrated in four fields. First, the field of health. Introduce health education into health education and health education to help children cultivate a positive attitude and brave spirit in the face of difficulties. Second, the field of language. Create an environment of free communication, encourage children to actively communicate with others, and eliminate timidity. At the same time, in the process of communication with others, consciously adjust the language expression habits. Third, the social field. Cultivate children’s confidence and courage to face any activity, and learn to communicate with others in the activity. Fourth, the field of art. Guide children to find and feel beauty in life, and improve their ability to feel beauty. Secondly, teachers play a main role in cultivating children’s good morality.

**Objective:** This paper puts forward a scheme of preschool education combined with mental health education, and analyzes the effect of the scheme on children’s healthy psychology.

**Subjects and methods:** 200 children from four regions were selected as the research object. The effect of preschool education scheme combined with mental health education on children’s psychology was analyzed by support vector machine algorithm. The whole experimental cycle lasted for 3 months. The mental health of residents passed the Symptom Checklist 90 (SCL-90), which includes 90 items and 10 sub scales, of which sub scale 10 is not used for these statistics. The nine factor subscales were somatization, obsessive-compulsive disorder, interpersonal sensitivity, depression, anxiety, hostility, phobia, paranoia and psychosis. The maximum score of each item in each sub scale is 4 points. The higher the self-score of each item, the more serious the symptoms. If children’s self-evaluation of each item is equal to or greater than 3 points, it will be used as the standard to determine the degree of moderate and above. In order to avoid the influence of subjective factors on the research results, the average value of all subjects was taken for analysis.

**Methods:** The effect of preschool education program combined with mental health education on children’s psychology was analyzed by EPINFO data statistical analysis software.

**Results:** Table 1 refers to the effect of preschool education program combined with mental health education on children’s psychology. It can be seen from Table 1 that after applying the preschool education program combined with mental health education, the mental health level of young children has been significantly improved, which is specifically reflected in 9 aspects: somatization, obsessive-compulsive disorder, interpersonal sensitivity, depression, anxiety, hostility, terror, paranoia and psychosis.

**Table 1.** The effect of preschool education program combined with mental health education on children’s psychology

Mental health indicators	After 1 month	After 2 months	After 3 months
Somatization	3	2	1
Obsession	3	3	2
Interpersonal sensitivity	3	2	1
Depressed	3	2	2
Anxious	3	2	2
Hostile	3	3	2
Terror	2	2	1
Paranoid	3	2	1
Psychotic	3	2	1

**Conclusions:** The preschool education program combined with mental health education proposed by the research institute can improve the mental health level of children, and greatly improve the health problems in the nine dimensions of somatization, obsessive-compulsive disorder, interpersonal sensitivity, depression, anxiety, hostility, terror, paranoia and psychosis. The program can be applied to the improvement of children’s psychological problems.

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## EFFECT OF OUTDOOR PHYSICAL TRAINING ON MENTAL HEALTH OF DEPRESSED COLLEGE STUDENTS

Jianwei Zhang

*China University of Geosciences, Beijing 10083, China*

**Background:** According to the authoritative data of the World Health Organization in 2021, the number of patients with suspected depression worldwide exceeded 400 million, and the number of patients with confirmed depression in China exceeded 100 million. Mental diseases mainly represented by depression have become the second largest killer threatening human health. The clinical manifestations of depression are high prevalence, high recurrence rate and high suicide rate. Patients usually have symptoms such as no new pleasure, low interest and low mood. The incidence rate of depression is increasing year by year, but the pathogenesis and etiology of this disease have not been confirmed. Most people, especially the family members of depression, cannot correctly understand depression. They usually regard the pessimism, depression, physical disorder, depression, heavy sleep in the morning and light sleep in the evening, slow thinking and lethargy shown by patients with depression as individual willpower weakness or individual laziness. This phenomenon of social support leads to the serious condition of patients with depression. Patients cannot achieve normal study, life and work when their condition is relatively mild. At present, the common intervention measures are offering lectures on professional knowledge of mental health and targeted personalized psychological intervention. The former popularizes common psychological problems and the adverse effects of psychological problems to patients through regular lectures on mental health knowledge, and provides patients with channels to obtain psychological assistance. The latter alleviates and improves psychological problems through active psychological intervention measures, and sets up a special psychological counseling room to complete psychological counseling. However, these depression intervention programs are difficult to implement, poor effect and low real-time, so it is difficult to fundamentally solve the psychological problems of patients with depression.

At this stage, outdoor physical exercise has been confirmed by many scholars at home and abroad that it can play a good intervention role in mental diseases. If patients with depression are alone or in a stressful environment for a long time, it will have a malignant impact on their psychological mood. If patients with depression are placed in a positive and optimistic environment, their thinking, thoughts and behavior will be positively guided, which will greatly reduce the degree of psychological depression. Outdoor physical exercise can be regarded as creating a positive environment for patients. Patients can reduce their attention to depression by relaxing their muscles and pleasing their hearts. Authoritative medical journals point out that patients with depression lack serotonin, which is a pleasure hormone, and exercise can promote the secretion of this hormone, especially aerobic exercise. The effect of aerobic exercise in the treatment of mild and moderate depression is similar to that of depression drugs, which has also been demonstrated by most experts. In addition to the adjuvant treatment of depression, exercise can also reduce the incidence rate of depression, and effectively prevent the occurrence of depression.

**Objective:** To analyze the clinical value of outdoor physical training in the mental health recovery of depressed college students, in order to enrich the intervention means of depressed patients and improve their mental health level.

**Subjects and methods:** 100 patients with depression were randomly divided into control group and experimental group, with 50 patients in each group. The control group took the routine psychotherapy mode for intervention, while the experimental group increased outdoor physical training on this basis. The experimental period was 3 months. After the end, the improvement of depressive symptoms of the two groups were compared and analyzed. Hamilton Depression Scale (HAMD) was used to measure the depressive symptoms of the two groups, and Drosophila optimization algorithm was used to classify the improvement effect of depressive patients. The HAMD scale includes seven factors: despair, sleep disorder, block, day and night change, weight, cognitive disorder and anxiety. Set the evaluation index of improvement effect as no improvement, improvement and obvious improvement. The improvement rate is the ratio of the number of people and the total number of people at the two levels of improvement and obvious improvement.

**Methods:** Through the latest version of CHISS data statistical analysis software to analyze the impact of outdoor physical training on the mental health level of patients with depression.

**Results:** Table 1 shows the improvement of depressive symptoms in the two groups after the experiment. The improvement of depressive symptoms in the experimental group was more obvious in the seven dimensions, while the depressive symptoms in the control group were only improved to some extent. Therefore, the introduction of outdoor physical training in the experimental group has an obvious effect on the intervention of patients.

**Conclusions:** Depression has a serious impact on people's normal life. All sectors of society and their