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Study on the Effect of Oxazepam Tablets Combined with Cognitive Behavioral Therapy on Foreign Language Learning Anxiety among College Students Majoring in Arts and Sports

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Abstract:
The aim of this study is to evaluate the therapeutic effect of oxazepam tablets combined with cognitive-behavioral therapy on foreign language learning anxiety among college students majoring in arts and sports. 40 college students majoring in arts and sports were randomly divided into control group and Drug group, with a total of 20 students in each group. The Self Rating Anxiety Scale (SAS) was used to evaluate the changes in foreign language learning anxiety levels among college students majoring in arts and sports. There was no statistically significant difference in SAS scores between the two groups of patients before treatment (P>0.05). After 8 weeks of Drug group treatment, the SAS scores of the Drug group were significantly lower than before treatment (t=12.706, P<0.01), while the SAS scores of the control group were significantly lower than before treatment (t=8.172, P<0.05). After different periods of treatment, except for the first week of treatment (P>0.05), the SAS scores of the Drug group were significantly lower than those of the control group, with a significant difference (P<0.05); The SAS effectiveness rate of the Drug group treatment was significantly higher than that of the control group ($\chi 2$=5.013, P<0.05). The combination of oxazepam tablets and cognitive-behavioral therapy can significantly improve anxiety behavior in foreign language learning among college students majoring in arts and sports, and reduce anxiety levels.

Keywords: oxazepam tablets, cognitive behavioral therapy, college students majoring in arts and sports, foreign language learning anxiety.

INTRODUCTION

In recent years, the topic of mental health has gradually received attention [1], and among many mental illnesses, anxiety disorder was particularly noteworthy [2]. In the Blue Book of Mental Health "Report on Chinese National Mental Health in 2022" issued by the Chinese Academy of Sciences, an investigation was conducted on the mental health of nearly 80000 college students, and it was found that the detection rate of anxiety risk was about 45.28% [3]. The most serious consequence of anxiety disorder was to induce suicidal tendencies, and anxiety disorder was one of the important reasons for college students to commit suicide [4], especially due to the special knowledge structure of art and sports majors. Their English foundation was relatively weak, and their English learning anxiety was more severe [5]. Studies have shown that the use of paroxetine and tandospirone citrate tablets can effectively improve clinical symptoms in patients [6]. Drug therapy is a commonly used clinical intervention for GAD, which can effectively alleviate patient anxiety and improve sleep quality. However, some scholars have pointed out that the use of a single drug in some severe patients has poor efficacy and can also cause a series of adverse reactions (such as drowsiness, lack of concentration, drug dependence) [7,8]. Therefore, other methods need to be combined to improve the intervention effect. There are also studies indicating that esomeprazole was a symptomatic therapeutic drug that can combat anxiety, treat insomnia, and exert sedative and hypnotic effects. However, it tends to become addictive during long-term use, and patients often experience worsening symptoms after discontinuation [9].

Oxazepam tablets are benzodiazepine hypnotics and sedatives. This drug has effects such as anti anxiety, sedative hypnosis, and central skeletal muscle relaxation [10]. This drug acts on the benzodiazepine receptor (BZR) in the central nervous system, enhancing central inhibitory neurotransmittersγ- The binding of aminobutyric acid (GABA) to GABAA receptors enhances the activity of the GABA system. BZR is divided into type I and type II, and it is believed that the excitation of type I receptors can explain the anti anxiety effects of BZ drugs, while type II receptors are related to the sedative and skeletal muscle relaxation effects of these drugs [11]. Furthermore, Oxazepam tablets can effectively activate the hypothalamic pituitary adrenal axis, stimulate excessive activity of corticotropin releasing hormone and sympathetic nervous system, leading to corresponding emotional and behavioral changes. At the same time, it enhances the activity of dopamine neurotransmitters in the hypothalamus, induces the release of corticosteroids and vasopressin from the amygdala and hippocampus, and causes dysfunction of the hypothalamic pituitary adrenal axis in anxiety patients, thereby alleviating anxiety levels [12].

Cognitive behavioral therapy (CBT) is a method of addressing psychological issues by changing the patient's perception and attitude towards themselves, people, or things, thereby addressing the patient's irrational cognitive problems. It has become one

of the most influential psychological counseling and treatment methods today [7]. Although this treatment method has been widely used worldwide, there is relatively little research on foreign language anxiety among Chinese university students, especially those majoring in sports and arts. Therefore, based on relevant research, it has been found that there are currently few treatments for anxiety disorder that combine oxazepam tablets with other therapies. Therefore, this study attempts to use the combination of oxazepam tablets and cognitive-behavioral therapy to clinically observe foreign language learning anxiety among college students majoring in arts and sports. It is hoped that this study can provide health and well-being for anxiety patients.

MATERIALS AND METHODS

Participants

From December 12, 2023 to February 1, 2024, this study selected 47 college students majoring in arts and sports from a university in Zhangjiajie, Hunan through open recruitment. According to the requirements and criteria for inclusion and exclusion, 40 college students majoring in arts and sports were ultimately selected to be included in this study, including 17 males and 23 females. This research experiment will start from February 26, 2024 and end on April 21, 2024. This study was approved by the Ethics Committee of Zhangjiajie College (Approval No.: ZJXY20231201), and all participants signed informed consent forms for this study.

Inclusion and Exclusion Criteria

Inclusion criteria

(1) Meets the diagnostic criteria of the Tenth Edition of the International Classification of Diseases (ICD-10). (2) A patient with short-term foreign language learning anxiety among college students majoring in arts and sports.

Exclusion criteria

(1) Previous formal treatment with diazepam injection was ineffective; (2) Having a serious suicidal tendency; (3) Serious physical illness; (4) Primary anxiety disorder, anxiety associated with other mental disorders, and anxiety syndrome secondary to physical diseases.

Evaluation Measures

Self-Rating Anxiety Scale (SAS) [13]. This scale consists of 24 items, rated based on the frequency of symptom occurrence defined by each item. Each item is scored on a 4-level scale, with "1" representing no or very little time, "2" representing a small portion of time, "3" representing a considerable amount of time, and "4" representing the majority or all of the time. After completing the evaluation, add up all the scores and calculate the total score. The higher the total score, the more severe the anxiety level. The scoring threshold is 50 points, with 50-59 points being mild anxiety, 60-69 points being moderate anxiety, and 70 points and above being severe anxiety [14,15].

Intervention Grouping

Drug group

The drug group received a combination treatment of Ozepam tablets and cognitive-behavioral therapy. Ozepam tablets (trade name: Ozepam, Beijing Yimin Pharmaceutical Co., Ltd., approval number: National Medical Standard H11020894, specification: 15 mg per tablet) 15-30 mg, tid, po, average (58.86±12.68) mg · d-1. On the basis of using Ozepam tablets, cognitive behavioral therapy is adopted, which aims to help individuals identify and change bad thinking patterns and behavioral habits. For example, through role-playing, patients can learn to cope with fear in social situations. This method is suitable for dealing with psychological disorders such as generalized anxiety disorder and social anxiety disorder [16,17]. Strongly combining two treatment methods to seek the happiness of foreign language learning anxiety among art and sports major college students. The drug group is mainly composed of two doctors responsible for drug treatment observation, while cognitive behavioral therapy is mainly organized and implemented by two psychologists.

Control group

The control group received supportive psychotherapy and interpersonal psychotherapy. Among them, supportive psychotherapy provides listening, understanding, and acceptance of the patient's feelings, and provides appropriate support and encouragement. For example, a therapist will actively monitor the patient's emotional changes and provide appropriate empathy and support. Suitable for situations that require psychological support during life transitions or when facing major life changes [18].

Interpersonal psychotherapy focuses on improving interpersonal relationships to alleviate psychological distress. For example, promoting trust and cooperation among members through group activities. The control group is mainly organized and implemented by three psychologists [19].

Statistical Analysis

The experimental data was summarized and statistically processed using PASW Statistics 18 Chinese version. The measurement data that followed a normal distribution were represented by ($\bar{\chi} \pm s$). Paired t-tests were used to compare the two groups before and after treatment. Independent sample t-tests were used to compare the means of the two groups, and chi square tests were used to compare the composition ratio. When the theoretical number T<1 or n<40, Fisher's exact test was used, and P<0.05 indicated that the difference was statistically significant.

RESULTS

Comparison of Effects between Two Groups of Patients Before and After Treatment

There was no statistically significant difference in SAS scores between the two groups of patients before treatment (control group: 76.03 ± 5.47, Drug group: 75.25 ± 5.62, P>0.05). After 8 weeks of Drug group treatment, the SAS scores of the Drug group treatment group were significantly lower than before treatment, with significant differences (Drug group group: 75.25 ± 5.62 and 36.15 ± 10.32, P<0.05). The SAS scores of the control group were significantly lower than before treatment, with significant differences (control group: 76.03 ± 5.47 and 54.38 ± 7.21, P<0.05). After treatment, the SAS scores of theDrug group were significantly lower than those of the control group, with significant differences (control group: 54.38 ± 7.21, Drug group: 36.15 ± 10.32, P>0.05). Please refer to Table 1 and Figure 1 for details.

Table 1. Comparison of SAS scores before and after treatment ($\bar{\chi} \pm s$)

Group (n)	SAS		t	p
	Before treatment	After treatment		
Control Group (n=20)	76.03±5.47	54.38±7.21	8.172	<0.05
Drug Group (n=20)	75.25±5.62	36.15±10.32	12.706	<0.01
t	-2.714	-6.236	-	-
p	>0.05	<0.05	-	-

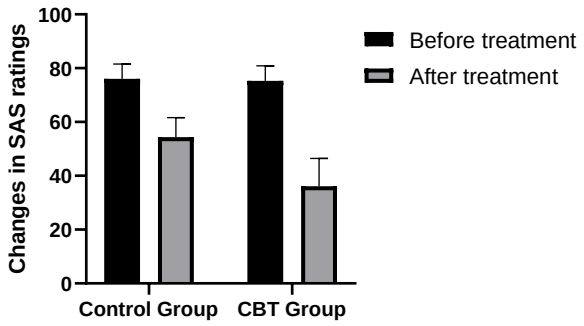

Figure 1. Control group vs CBT group

Comparison of SAS Scores between Two Groups at Different Treatment Time Points

There was no significant difference between the two groups after the first week of treatment (control group: 75.15 ± 8.32,Drug group: 74.63 ± 7.61, P>0.05); The SAS score of theDrug group was significantly lower than that of the control group in the third week after treatment (control group: 65.13 ± 10.41,Drug group: 50.34 ± 8.16, P<0.05); After 6 weeks of treatment, the SAS score of theDrug group was significantly lower than that of the control group (control group: 58.19 ± 9.52,Drug group: 42.03 ± 7.72, P<0.05). Please refer to Table 2 and Figure 2 for details.

Table 2. Comparison of SAS scores between the Control Group and the Drug group at different time points ($\bar{\chi} \pm s$)

Group (n)	SAS		
	First Week	Third Week	Sixth Week
Control Group (n=20)	75.15±8.32	65.13±10.41	58.19±9.52
Drug Group (n=20)	74.63±7.61	50.34±8.16	42.03±7.72
t	-0.149	-4.061	-4.067
p	>0.05	<0.05	<0.05

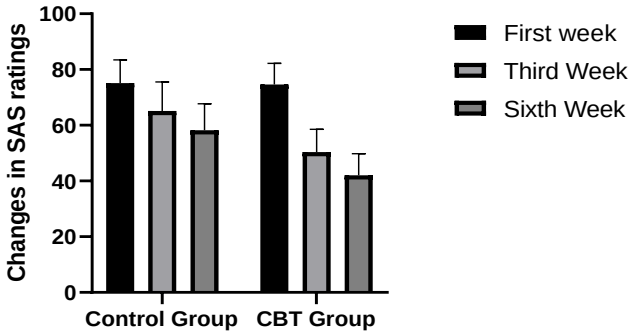

Figure 2. Changes in different time stages: Control group vs CBT group

Comparison of Effective Rates between Two Groups of Patients After Treatment

The effective rates of the two groups showed different changes and trends after treatment, with a total of 20 people in the Drug group treatment group. Among them, the effective rate (score<50) of SAS after treatment was 15 people (75.0%); The effective rate of SAS in the control group was 8 people (40%). Therefore, after cognitive-behavioral therapy treatment, theDrug group was significantly higher than the control group (P<0.05). Please refer to Table 3 and Figure 3 for details.

Table 3. Comparison of effective rates between two groups of patients after treatment, n (%)

	Control Group (n=20)	Drug group Group (n=20)	χ^2	p
SAS	8(40.0)	15(75.0)	5.013	<0.05

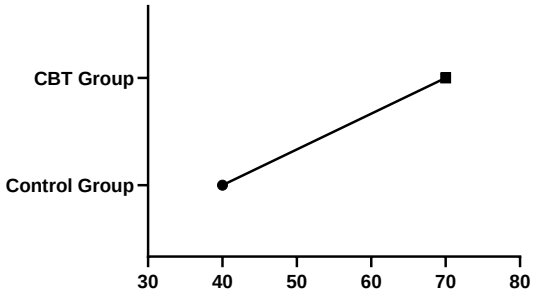

Figure 3. Efficiency comparison: Control group vs CBT group

DISCUSSION

Combination therapy was a rapidly developing psychological cross treatment method in recent years, mainly targeting mental disorders such as anxiety, depression, and obsessive-compulsive disorder. Its therapeutic effect has been confirmed by evidence-based medicine [14]. Recent studies have shown that combination therapy is not limited to the aforementioned diseases, but also has an improving effect on diseases caused by irrational cognition [15,16], such as anxiety disorders [19]. If left untreated, this

anxiety can seriously reduce quality of life, even suicidal behavior, various complications, and mortality rates [20]. However, although anxiety can bring great harm to patients, its low detection rate has not received the attention it deserves [21], especially for college students majoring in arts and sports. Due to the special nature of their majors, they invest a lot of time in specialized training during their school years, and most students have weak foreign language foundations [22]. This poses a great challenge to foreign language learning for college students majoring in arts and sports, and their anxiety levels have significantly increased. Anxiety in foreign language learning among college students majoring in arts and sports often stems from a lack of understanding of the disease, treatment, and prognosis, leading to erroneous beliefs and negative emotions [23].

This study compared two groups and found that the SAS score of the Drug group was significantly lower than that of the control group; There was no statistically significant difference in SAS scores between the two groups of patients before treatment and one week after intervention. However, as time went on, the SAS scores of both groups of patients showed a significant downward trend. Among them, the scores of anxiety patients in the Drug group decreased more significantly than those in the control group, which also reflects that the specific clinical treatment effect of the Drug group was significantly better than that of the relaxation training control group; Furthermore, in terms of overall effectiveness, the treatment effectiveness rate of the Drug group is significantly higher than that of the control group, which provides necessary benefits for the improvement of foreign language learning anxiety among college students majoring in arts and sports.

Some researchers believe that combination therapy is difficult to improve diseases such as anxiety and schizophrenia [24], and the use of drugs can cause indelible damage to citizens' bodies [25]. However, previous studies have held the opposite view, believing that combination therapy can effectively improve anxiety symptoms [26] and enhance patients' self-management abilities [27]. After receiving cognitive-behavioral intervention, patients can significantly reduce their anxiety levels [28]. Moreover, oxazepam is a benzodiazepine sedative hypnotic drug, which is an exogenous inhibitory neurotransmitter [29]. It mainly promotes inhibitory neurotransmitters by binding to benzodiazepine receptors in the midbrain limbic system, thalamus, and hypothalamus γ- Aminobutyric acid and γ- The binding of aminobutyric acid A receptor increases the frequency of chloride channel opening, causing postsynaptic membrane hyperpolarization, resulting in central inhibition and skeletal muscle relaxation effects, thereby exerting anti anxiety effects. This is consistent with the outcome of this study. Therefore, the combination of oxazepam tablets and cognitive-behavioral therapy used in this study has an important role and value in improving foreign language learning anxiety among college students majoring in arts and sports. It can provide necessary assistance and support for the group of foreign language learning anxiety among college students majoring in arts and sports.

CONCLUSIONS

Foreign language learning anxiety among college students majoring in arts and sports is an extremely complex phenomenon. Starting from the multidimensional perspectives of the anxiety subject's psychology, beliefs, and behavior can help to have a more complete understanding of the anxiety phenomenon, especially since their general foreign language learning ability is weak and their foundation is poor, which will further exacerbate their anxiety level. Therefore, foreign language teachers must closely monitor the words and actions of college students majoring in arts and sports, and help them reshape their cognitive behavior institutions, improve their cognitive level, relax their body and mind, gradually alleviate and eliminate anxiety through cognitive behavior intervention and relaxation training. Of course, further exploratory research is needed to effectively alleviate foreign language learning anxiety. In China, there is a large group of foreign language learners, and research on language anxiety, aversion to learning, and declining motivation related to foreign language learning psychology is more urgent and necessary. In future research, what effective measures should teachers take to minimize student anxiety while stimulating their learning motivation will be the direction of future research. I hope that the issues discussed in this article can provide inspiration for foreign language learning and teaching in arts and sports universities.

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DATA AVAILABILITY

The participants of this study did not agree to their data being shared publicly; therefore, supporting data are not available.

AUTHORS' CONTRIBUTIONS

Fang Huang designed the study, collected data, performed data analysis and wrote the first draft of the manuscript.

ETHICS APPROVAL AND INFORMED CONSENT

This study was approved by the Ethics Committee of Zhangjiajie College (Approval No.: ZJXY20231201), and all participants signed informed consent forms for this study.

CONFLICT OF INTERESTS

According to policy as well as moral obligation. There are no conflicts of interest in this study.

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