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Computer-Aided Design AND APPLICATIONS

Activities Research in the Music Art Environment Based on Digital Art Analysis and Multi-Physiological Signal Anxiety Recognition

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Abstract. College students are a special group concerned by society and colleges and universities. As a talent resource in the knowledge age, they carry the high expectations of society and their parents, have high self-positioning, and have a strong desire to become a talent, but their psychological development is not mature enough. The problems they encounter during their growth and development are also more complex and diverse, and their mental health is not optimistic. However, a growing body of research has begun to focus on physical activity in response to psychological anxiety. From the existing research, different activity intensity, activity duration and activity items have different effects on the body's psychological anxiety. At present, the more consistent conclusion is that long-term sustained moderate-intensity activities can help improve the psychological anxiety of college students, and different programs have different effects on improving psychological anxiety. Through experimental research, this paper confirms the influence of activities in the music environment on college students' self-control, psychological stress and the mediating effect of self-control, and provides alternative activity plans for college students' mental health promotion. Table (SCL-90), general self-efficacy scale, various psychological measurement scales and student physical education performance evaluation table, respectively, comprehensively evaluate the mental health status and physical education performance of college students, so as to obtain relevant data and compare them analyze. The experimental results showed that compared with the control group, the interpersonal sensitivity, anxiety and depression in the SCL-90 test results were significantly better than those in the control group, and the difference was significant ($P<0.05$). Therefore, activities in the music environment have practicality, pertinence and feasibility for anxiety psychology, and can produce good short-term and long-term benefits for students' psychological quality, especially more in line with students' interests, more realistic and just right.

Key words: Music environment; Activity; college students; Psychological anxiety; Experiment; Digital art analysis
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1 INTRODUCTION

Anxiety is a lack of objective reasons or groundless inner anxiety or even fear. Those who have been in this state for a long time will subjectively affirm negative fear and self-evaluation, which will seriously affect college students' physical and mental health and academic performance. Relevant data points out that many college students have psychological anxiety to a certain extent. At present, college students are suffering from various influences, followed by increasing pressure, and many college students do not know how to deal with these pressures. Over time, psychological problems appear, which is a major obstacle to the growth and development of college students. Therefore, college education should emphasize mental health education, aiming at cultivating students' good psychological quality, carry out various activities, stimulate students' psychological potential, and promote the comprehensive and healthy development of students' body and mind. For the psychological anxiety problems of college students, the traditional treatment plan is to intervene, such as cognitive therapy. Although it is helpful for students' psychological problems, there are also some deficiencies. Using moderate sports activities in the music environment to heal people's hearts is easier to be accepted by students, and the effect is better [13]. Use digital art analysis in music activities research is to capture and analyze audio and video recordings of musical performances. This can involve using computer algorithms to analyze the acoustic properties of music, such as pitch, rhythm, and timbre, and to identify patterns and trends in the performance. Researchers can also use visualization tools to create graphical representations of the music, highlighting different aspects of the performance such as the overall structure, the use of harmony and melody, and the dynamics and phrasing of the music.

In this paper, 180 college students with mild to moderate anxiety were selected as experimental subjects, and 16 weeks of activity teaching in music environment were conducted. Before and after the experiment, SCL-90 and PSPP)☐ were used to study the influence of activities in music environment on college students' mental health, and the level of serum immunoglobulin was tested. The results show that the activities in the practice music environment have positive effects on somatization, interpersonal sensitivity, hostility and paranoia, and the effects on obsessive-compulsive symptoms, anxiety, depression, terror, psychosis and average score have reached a significant level. The changes of physical value of activities in the practice environment have improved in the dimensions of PSPP total score, activity ability, physical quality, physical condition and physical attraction, but have not reached the significant level; There was a significant difference in serum immunoglobulin IgM after exercise in the music environment, and the level of ☐IgG and IgA increased but did not reach a significant level [5].

As far as college students are concerned, there are many factors that induce psychological disorders, including personality, stress, and environment. Both personality and stress can directly lead to psychological anxiety. The environment indirectly affects the level of anxiety on the basis of these two factors. Latent variables have a dialectical relationship of mutual influence and connection. Emotional states and their accompanying physiological responses directly affect the functioning of the emotional system: positive emotional states enhance immune function, while negative emotional states weaken the immune system. When physical conditions allow, reasonable exercise in a music environment can improve psychological stress, anxiety, and emotional mood, and the combination of the two can improve the overall quality of life. In addition, when choosing an activity project, it is necessary to combine the specific interests of college students, and reasonably divide the specific

activity time and activity frequency [15]. Therefore, the practical significance of this study has the following two points:

(1) By studying the intervention effect of music therapy on depression and anxiety symptoms of college students, this paper reveals and verifies the psychotherapy function of music works and their aesthetic appreciation. At present, there are a large number of relevant studies in the theory of music art, in which many descriptive studies can be found on the psychotherapy function of music works and their aesthetic appreciation, but few empirical studies. This study attempts to explain and prove the psychotherapy elements of music works and the intervention effect on corresponding symptoms through experimental intervention. At the same time, through experimental research, it discusses in detail the therapeutic psychological phenomena that may occur in the process of music environment, further verifies the psychotherapy effect of music works appreciation, and makes it more organized and systematic.

(2) By studying the intervention effect of appropriate activities on depression and anxiety symptoms of college students, we can enrich the research data of sports activity therapy. At present, the research on sports activity therapy abroad has developed rapidly, and the treatment materials, application mechanisms and treatment objects are spread out in three dimensions. In addition, in terms of its application mechanism, most of the current studies have affirmed the role of physical activity therapy in changing cognition and enhancing mental health, so it is applied to many cognitive behaviorism treatments and education, but its aesthetic, catharsis and other emotional changes are still weak. Therefore, the development of this study can not only enrich the research data on the selection of music works in sports activity therapy, but also enrich the research on the application mechanism of sports activity therapy [19].

This article is organized into seven chapters. The first chapter is the introduction part. This part has different effects on the psychological anxiety of the body from different activity intensities, activity durations and activity items. Moderate-intensity activities can help improve the psychological anxiety of college students, and different items can improve psychological anxiety. Analyze the status quo of different functions, summarize the reasons for the problems, and propose relevant experimental methods. The second chapter mainly summarizes the relevant literature, summarizes the advantages and disadvantages, and puts forward the research ideas of this paper. The third chapter suggests the effect of music therapy on relieving the anxiety of college students. The fifth chapter describes the multi-physiological signal anxiety recognition method. Chapter 6 analyzes and summarizes the results of this experiment in turn, and Chapter 7 concludes and summarizes the results of the full text.

2 RELATED WORK

Payton L's "Research on the intervention of music therapy on College Students' social anxiety" shows that music therapy, as a special form of social activity, can reduce the level of social communication anxiety and have an unexpected effect on improving interpersonal communication ability [9]. Jeon h o believes in the application of music therapy in college students' psychological counseling that college is a critical period of human growth, because college students' physiology and psychology are in the development period and in the late adolescence, which is the transformation of teenagers to adults [6]. The results of Robertson inner R's study on the behavior of Alzheimer's patients treated with group individual music show that music therapy can effectively deal with the restless behavior of Alzheimer's patients [10]. Reduce the frequency of restless behavior, and then promote the physical and mental health and quality of life of Alzheimer's patients. American scholar Rui Z believes that there are many similarities between the psychological pressure faced by Chinese and American College Students [11]. The pressure of American College Students in college comes from the study

burden of professional courses, interpersonal communication, emotional problems and economic problems. It can be seen that college students all over the world have similar psychological problems.

Psychologists have introduced the term stress into the field of psychology. Different researchers have different definitions and understandings for the definition of psychological stress: Tanner River believes that psychological stress is caused by objective needs and the A state of tension caused by an imbalance between coping abilities [12]. Cao Z Y's point of view is: "Psychological stress is a comprehensive psychological state in which individuals generate more tension due to the continuation of stressful events" [3]. Zhao W believes that psychological stress, also known as "psychological stress", is a tendency to go through a variety of psychological pressures when a person perceives or realizes that he is facing a critical and difficult environmental requirement. The psychosomatic tension state manifested by the physiological response [20]. Yong W believes that psychological stress refers to psychological feelings that are caused by internal or external stimuli and have a certain impact on an individual's body and mind [18]. Cosh S et al believe that psychological stress refers to the process of psychological and physiological manifestations of individuals under the action of stressors, through the influence or mediation of various factors such as cognition, coping, social support and personality characteristics. [4]. The domestic scholar Xia Q has developed a self-assessment life events scale for adolescents, which is adapted to assess the frequency and intensity of stressful life events in adolescents, especially middle school students and college students [16]. To sum up, from different perspectives, scholars have revealed the nature of psychological stress to a certain extent, which has played an important role in promoting and far-reaching influence on the study of psychological stress.

3 THE EFFECT OF MUSIC THERAPY ON RELIEVING ANXIETY OF COLLEGE STUDENTS

Music therapy is based on the theory and method of psychotherapy ☐ A therapeutic technique that uses the nonverbal aesthetic experience of music and the activities of playing music to achieve the purpose of psychological adjustment ☐ It is a very ideal "natural therapy". The purpose is to explore the influence of music therapy on College Students' psychological anxiety treatment ☐ Discuss its effect on College Students' psychological anxiety ☐ Provide a theoretical basis for the current mental health education of college students [17]. The following is the framework of mental health intervention from the perspective of music.

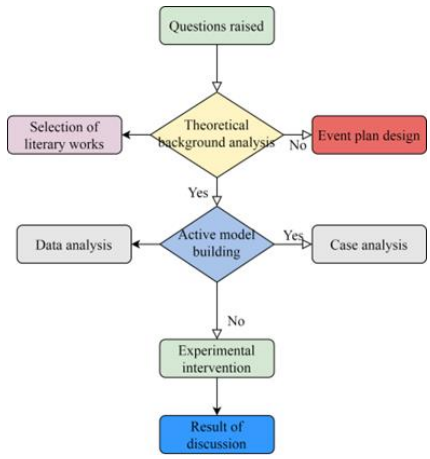

Figure 1: Flow chart of research on experimental intervention of music therapy on depression and anxiety symptoms of college students.

On the basis of the preliminary conception of each dimension of the activity model in the music environment, a semi-open-close questionnaire of the research model was compiled. 10 experts and 50 college students were investigated by e-mail and direct survey, and the recovery rate was 100. The questionnaire closed survey item adopts five grades, and the components with 70% approval rate or above are selected, that is, the components with grade 3 and above. And comprehensively consider various suggestions mentioned by experts and students in open projects, and verify and modify the conceptual model to determine the model of music therapy for psychological anxiety [8]. It should be noted that the selected music works are grouped according to the actual situation of this study. Due to the limitation of time and place, we will select the works that are most likely to achieve therapeutic significance in each activity, but in fact, almost all works include the therapeutic components of the music therapy listed above. Therefore, in the implementation of the activity, we should not only highlight a certain therapeutic component of the music works, but also give consideration to other therapeutic components of the works, so as to give prominence to both key points and all aspects.

Gender	***Time for a song or two***		***Less than 1 hour***		***1 hour to 3 hours***		***More than 3 hours***	
	N	*%*	*N*	*%*	*N*	*%*	*N*	*%*
Female	*1*	*4*	*7*	*29*	*7*	*29*	*9*	*38*
Male	*0*	*0*	*8*	*33*	*10*	*9*	*6*	*25*

Table 1: Analysis of the time spent listening to music by the tested college students.

From the analysis table of the time spent listening to music by college students (Table 1), it can be seen that college students like music, and they enjoy music for a long time. Girls often enjoy music for more than 3 hours each time. Boys focus on 1 to 3 hours. Among them, there are also more "frequent listening" selectors mentioned in the questionnaire. Therefore, almost all college students like to enjoy music, and each time is longer. This can be a good basis for music therapy.

4 THE RELATIONSHIP BETWEEN SPORTS AND PSYCHOLOGICAL ANXIETY AND SELF-CONTROL

In recent years, studies have found that self-control is plastic, and good self-control ability plays a vital role in individuals' pursuit of success, a happy life, and the prevention and control of bad behavior. With the deepening of scientific research, self-control intervention has become an important frontier topic in psychology, pedagogy and cognitive neuroscience [7]. It includes three dimensions: self-control tendency (including goals, plans, activity arrangements, etc.), self-control

strategies (including anti-interference, emotional control, environmental control, help seeking) and sense of control (including self-control efficacy, self-monitoring, self-evaluation, emotional response, etc.), as shown in Figure 2.

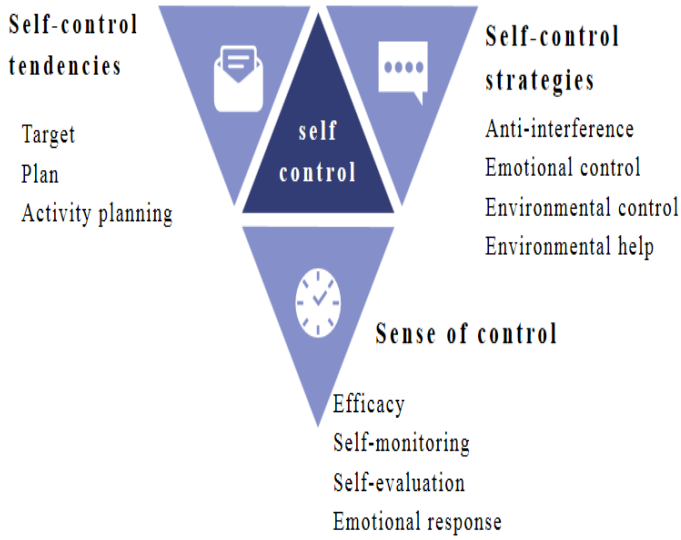

Figure 2: The structure of self-control.

Self-control is of great significance to both individuals and society, and poor self-control will have an immeasurable impact on students, especially college students [1]. College students are a special group. They are in an important period of forming their values and outlook on life, and they are facing the pressure of employment, academic, emotional, economic, interpersonal and other issues. Compared with other study periods, during the university period, the management is relatively loose, and there is more time at the disposal of oneself. The college period is a transition period for students to enter the society. The problems faced by college students are that they have not encountered in other stages of study. For example, many college students do not have clear goals and pursuits in the college stage, which leads to the lack of effective time and energy. Awareness of management, lack of ability to carry out effective behavior plans, and the ability to execute the plan, resulting in a low level of self-control [14].

Physical activity can act as a "buffer" to reduce an individual's psychological stress level and promote the development of their mental health. At the same time, physical activity can also be used as an effective means to improve self-control, enhancing individual self-management and self-discipline [2]. At present, a large number of studies have confirmed the intervention effect of the "dose effect" of exercise on psychological stress and self-control. The more consistent conclusion is that long-term moderate-intensity physical activity can effectively relieve psychological pressure and improve self-control ability. The complex relationship between them See Figure 3.

Assuming that self-control is an intermediary variable, the intermediary effect of self-control on the psychological stress of college students in basketball, aerobics and their combination sports is verified according to the intermediary effect test procedure.

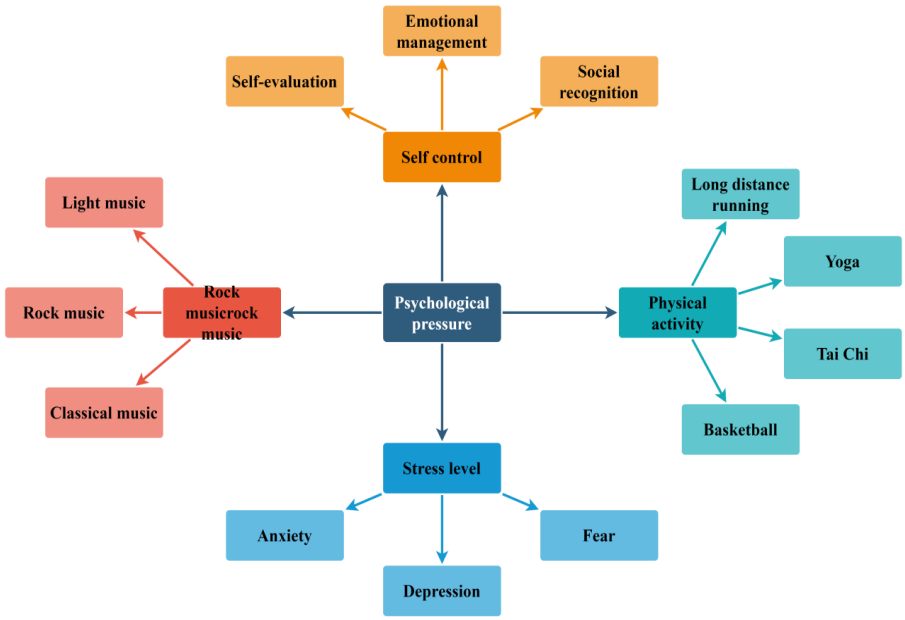

Figure 3: Relationship between music, physical activity, self-control and psychological stress.

Taking different items as independent variables, aerobics, basketball, aerobics + basketball, basketball + aerobics are represented by D_1, D_2, D_3, D_4 respectively. Taking the total score of psychological stress as the dependent variable, impulse control (M_1), healthy habits (M_2), resisting temptation (M_3), focused learning (M_4), and total score of self-control (M_5) as the intermediary variables, the specific test procedures are as follows:

$$Y = cX + e_1 \tag{1}$$

$$M = aX + e_2 \tag{2}$$

$$Y = xX + bM + e_3 \tag{3}$$

- To test the coefficient c of formula (1), if it is significant, it is based on the mediation effect; if it is not significant, it is based on the masking effect, but whether it is significant or not, follow-up tests are carried out;
- Test the coefficient a of formula (2) and the coefficient b of formula (3) in turn. If both are significant, then the indirect effect is significant? Then go to the fourth step, if at least one is not significant, go to the fifth step;

- Use the Bootstrap method to directly test $H_o : ab = 0$. If it is significant, the indirect effect is significant and go to the fourth step; if it is not significant, the indirect effect is not significant, and the analysis is stopped;
- If the coefficient of test square (3) is not significant, the direct effect is not significant, indicating that there is only a mediating effect. If it is significant, the direct effect is significant, and the fifth step is performed;
- Compare the signs of ab and c. If the sign is the same, it belongs to the partial mediation effect, and the proportion of the mediation effect to the total effect is reported ab/c. If the sign is different, it belongs to the masking effect, and the absolute value $|ab/c|$ of the ratio of the indirect effect to the direct effect is reported.

5 MULTI-PHYSIOLOGICAL SIGNAL ANXIETY RECOGNITION METHOD

Through the laboratory emotion induction experiment, a total of 8 subjects were obtained, and a total of 88 samples of physiological signals were obtained, including 16 samples of physiological data in calm state and 72 samples of anxiety. The anxiety samples were also divided into three groups according to the corresponding experimental groups. The feature information is extracted from the physiological signal database obtained after preprocessing, and the original feature set is obtained, and this set is used for subsequent feature selection and data classification and identification. The various features are calculated as follows:

$$mean = \frac{1}{N}\sum_{n=1}^{N} S_n \tag{4}$$

$$\mathrm{var} = \frac{1}{n=1}\sum_{n=1}^{N}\left(S_n - mean\right)^2 \tag{5}$$

$$1diff = \frac{1}{N-1}\sum_{n-1}^{N}\left|S_{n+1} - S_n\right| \tag{6}$$

$$range = \max - \min \tag{7}$$

In the above formula, S represents each kind of signal data, and N represents the length of the collected data.

Firstly, 11 groups of data are obtained from the mean value characteristics of various physiological signals, including the calm state physiological data group, the first group of experimental physiological data group, the second group of experimental physiological data group, and the third group of experimental physiological data group. The subjects are different and have individual differences, and the physiological data will be affected accordingly. In order to minimize this effect, this paper normalizes all the data, and then uses the method of one-way ANOVA to analyze the difference. Now the total average μ is introduced.

$$\mu = \frac{1}{n}\sum_{j=1}^{s} n_j \mu_j \tag{8}$$

Among them,

$$n = \sum_{j=1}^{s} n_j \tag{9}$$

Introducing effect δ_j at level A_j,

$$\delta_j = \mu_j - \mu (j = 1,2,\cdots,s) \tag{10}$$

Or,

$$n_1\delta_1 + n_2\delta_2 + \cdots + n_s\delta_s \tag{11}$$

δ_j is the difference between the overall mean and the overall mean at level A_j.

It is assumed that the populations are normally distributed and have the same variance, that is, it is assumed that the samples $x_{1j}, x_{2j}, \cdots, x_{nj}$ of each level $A_j (j = 1,2,\cdots,s)$ are from the normal population $N(\mu_j, \sigma^2), \mu_j$ and σ^2 are unknown, and that the samples at different levels A_j are independent of each other, then the one-factor variance The test statistic required for the analysis can then be derived from the decomposition of the total sum of squares.

For 11 groups of data with the mean characteristics of each physiological signal, this paper completes the one-way ANOVA of four groups of data and the subsequent Dunnett test analysis by SPSS software. The results showed that the average respiratory rate was significantly affected by the experimental task ($p<0.001$). And the average respiratory rate of the experimental group was significantly higher than that of the rest group ($p<0.01$). The average heart rate in the calm state and the second experimental state was significantly affected by the experimental task ($p<0.05$). The mean blood volume pulsation rate was significantly affected by the experimental task ($p<0.05$), and the blood volume pulsation rate in the rest state and the first and second experimental states was significantly affected by the experimental task ($p<0.01$). The average skin electrical value was significantly affected by the experimental tasks ($p<0.01$), and the average skin electrical values in the calm state and the second and third experimental states were significantly affected by the experimental tasks ($p<0.05$), as shown in Table 2.

Project	***Male***	***Female***	***t***	***p***
Pulse (beats/min)	*85.86±12.44*	*83.75±9.29*	*1.745*	*0.274*
Breathing (times/min)	*15.34±4.48*	*14.55±4.54*	*0.442*	*1.365*

PNN50（%）	*21.75±15.01*	*22.55±13.65*	*0.354*	*1.658*
Blood pressure (systolic mmHg)	*108±17.56*	*106.54±15.75*	*1.359*	*3.562*
Blood pressure (diastolic mmHg)	*83.13±16.27*	*84.13±14.26*	*0.175*	*2.541*

Table 2: Comparative analysis of physical and mental regulation feedback training of different genders.

The instructor uses the portable mind-body feedback training instrument type II to train the subjects. The system first accurately measures the pulse, respiration, PNN50, blood pressure and other indicators, and provides real-time feedback on the physical and psychological changes and training effects of the students during the training process; Then according to personal psychological problems, a special training program is developed, which effectively meets the psychological state of each person. Therefore, in theory, the feedback training of mind-body regulation is not affected by personal circumstances, and the above data also show that feedback training of body-body regulation is not affected by gender.

6 FINDINGS

The experimental procedure of this study is as follows:

- Group the selected subjects. On the basis of obtaining the consent of relevant leaders, teachers and students in advance, freshmen in five classes of a university were selected as the research objects, and the classes were randomly divided into four experimental groups and one control group.
- Pre test. Pretest the five groups respectively. The self-control and psychological stress levels of the subjects before the experiment were measured by group measurement.
- Exercise intervention. The subjects were intervened continuously for 12 weeks, twice a week, and each time the moderate exercise intensity was accumulated for 30 minutes. The subjects were guided by the same teacher at the same time and place.
- During the experiment. The pilot test will be carried out in the seventh week.
- Continue the exercise intervention for 6 weeks.

6.1 The Influence Of Basketball, Aerobics and Their Combined Sports On the Overall Self-Control Level Of College Students

Repeated-measures ANOVA with 5 (groups: control group, experimental group 1, experimental group 2, experimental group 3, and experimental group 4) × 3 (time: pre-test, mid-test, post-test) was used to analyze group, time The influence of factors on the overall self-control level of college students. The results are shown in Table 5. The intra-group test results showed that the time factor was statistically significant (FA388) = 11.707, P < 0.001, t! P2=0.057), indicating that the overall self-control level has a trend of changing with time; the inter-group test results showed that the group factor was statistically significant (F (4.194>=2.524, P=<0.05). , t!p2=0.049), indicating that there is a significant difference in the overall self-control level between the experimental group and the control group. The interaction between time and group was statistically significant

(F(8,388)=2.007, P<0.05, T!P2=0.040), indicating that the effect of time factor varies with different groups, as shown in Figure 4.

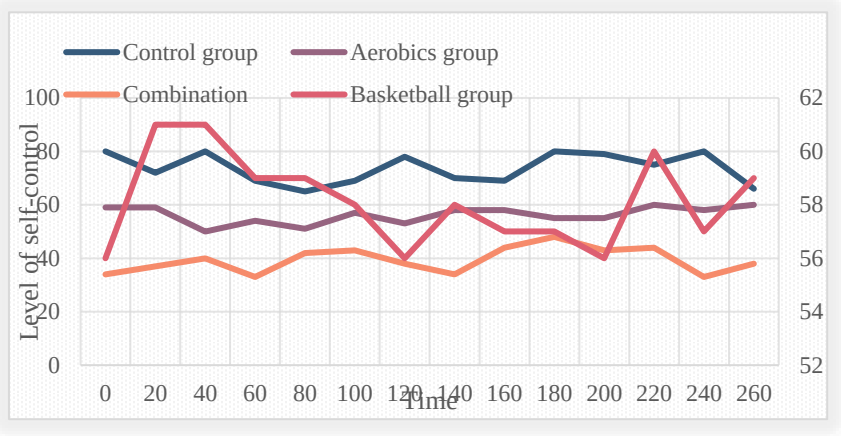

Figure 4: Changes in the overall level of self-control in different groups before, during, and after the experiment.

6.2 The Effects Of Basketball, Aerobics and Their Combined Sports On the Impulse Control Level Of College Students

A repeated measures ANOVA method of 5 (groups: control group, experimental group 1, experimental group 2, experimental group 3, and experimental group 4) × 3 (time: pre-test, mid-test, post-test) was used to analyze group, The influence of time factor on the impulse control level of college students is shown in Figure 5.

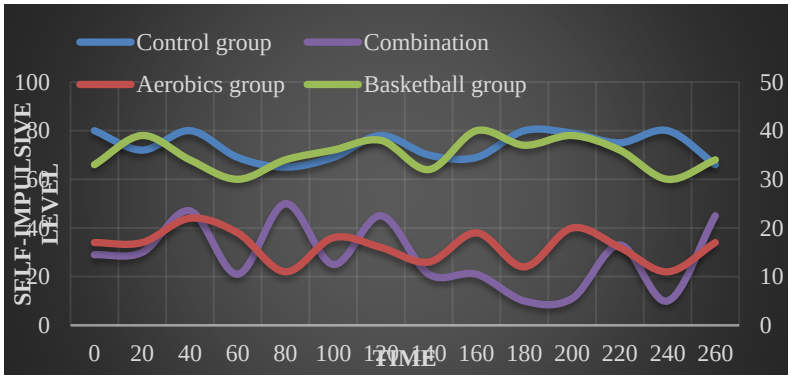

Figure 5: Changes in the level of self-impulsivity in different groups before, during, and after the experiment.

The results showed that the difference between the aerobics group and the aerobics + basketball group was statistically significant (P < 0.01), the difference between the basketball group and the aerobics + basketball group was statistically significant (P < 0.05), the basketball + The difference

between the aerobics group and the aerobics + basketball group was statistically significant ($P<0.05$). The post-test impulse control score of the aerobics group was significantly higher than that of the aerobics + basketball group. Aerobics exercise had a positive impact on the level of impulse control of college students and promoted the improvement of the level of impulse control of college students. The second is basketball. The impulse control level of college students in the basketball + aerobics group is significantly higher than that in the aerobics + basketball group, and the sequence of basketball + aerobics has a significant effect.

6.3 Effects Of Basketball, Aerobics and Their Combined Sports On the Health Habits Of College Students

Repeated measures ANOVA with 5 (groups: control group, experimental group 1, experimental group 2, experimental group 3, and experimental group 4) > 0 (time: pre-test, mid-test, post-test) was used to analyze group, The influence of time factor on the level of college students' health habits is shown in Figure 6.

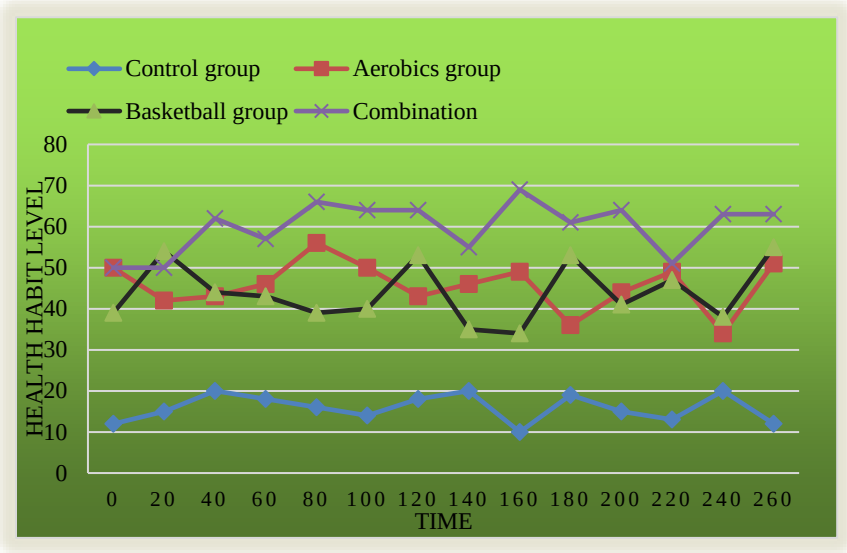

Figure 6: Changes in the level of healthy habits in different groups before, during and after the experiment.

The results show that in Figure 6, the changes in the health habits of each group before, during and after the test show an upward trend in the health habit scores of the basketball + aerobics group. Significant difference.

6.4 The Effect Of Different Durations On College Students' Resistance To Stress in the Same Group

A repeated measures ANOVA method of 5 (groups: control group, experimental group 1, experimental group 2, experimental group 3, and experimental group 4) × 3 (time: pre-test, mid-test, post-test) was used to analyze group, The effect of time factor on college students' anti-stress level is shown in Figure 7.

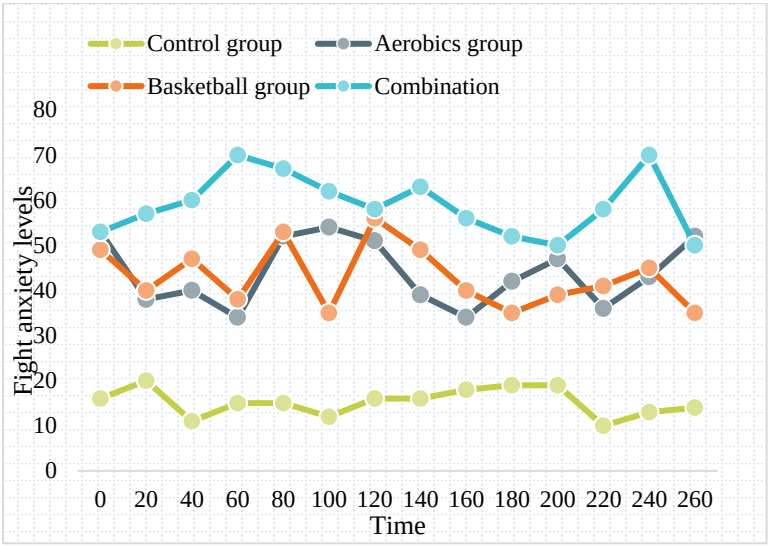

Figure 7: Changes in the level of resistance to stress in different groups before, during, and after the experiment.

Combined with Figure 7, the improvement effects of basketball and aerobics and their combined sports on college students' resistance to stress are in the following order: basketball group, basketball + aerobics group, aerobics group, aerobics + basketball group, and control group. The results showed that under the conditions of aerobics and basketball, there was a statistically significant difference in the level of resistance to temptation before, after, and after the test (P0.01). Under the conditions of basketball + aerobics, the difference between the post-test and the pre-test was statistically significant (P<0.01), and the post-test was significantly better than the pre-test, that is, the effect lasted for 12 weeks. better than the previous test.

6.5 The Influence Of Different Groups On the Level Of Abstinence Anxiety Of College Students At the Same Time

Repeated-measures ANOVA with 5 (groups: control group, experimental group 1, experimental group 2, experimental group 3, experimental group 4) U (time: pre-test, mid-test, post-test) was used to analyze group, time The influence of factors on the level of abstinence anxiety of college students is shown in Figure 8.

In the case of significant interaction between time and group, simple effect analysis is carried out for different groups and various levels of duration. That is to fix one level of one factor and test the difference of College Students' containment anxiety level at each level of another factor. There was significant difference between aerobics group and aerobics + basketball group ($P < 0.05$), basketball + aerobics group and control group, basketball group ($P < 0.05$), basketball + aerobics group and aerobics + basketball group (P, The level of containment anxiety of college students in Aerobics group and basketball + aerobics group is significantly better than aerobics + basketball group, basketball + aerobics group is significantly better than the control group and basketball group, and the sequential effect of basketball + aerobics is greater than that of Aerobics + basketball.

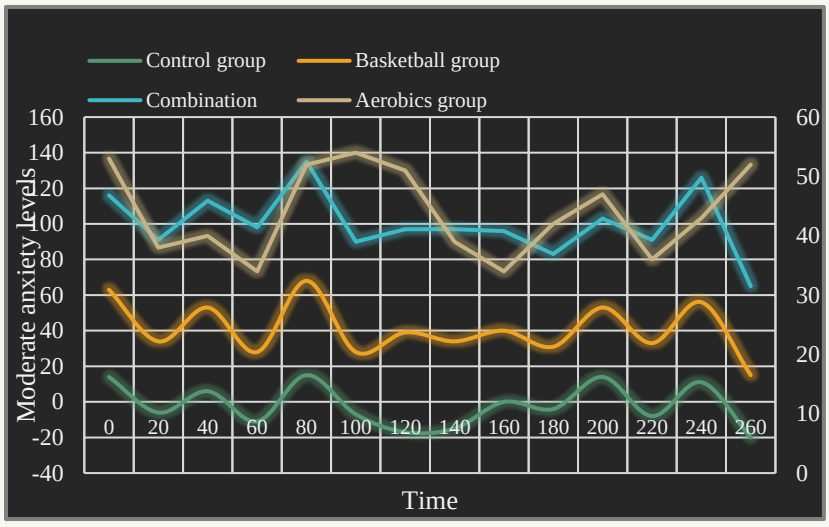

Figure 8: Changes in levels of restraint anxiety in different groups before, during, and after the experiment.

7 CONCLUSIONS

To sum up, the implementation of different aerobic exercise health care for anxious students is beneficial to the reduction of SAS score, but the degree of reduction is related to the degree of anxiety. The intervention process or the improvement of the condition with the help of other treatments and interventions may also be related to the fact that subjects with moderate anxiety are more susceptible to the influence of the external environment. Therefore, 1h of moderate-intensity and interesting aerobic exercise in a music environment can significantly improve the psychological anxiety of college students, which is beneficial to their physical and mental health.

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