

RESEARCH ON THE EFFECT OF ART THERAPY ON RELIEVING MENTAL STRESS OF COLLEGE STUDENTS

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SUMMARY

Background: As a new type of psychotherapy, art therapy is not only the product of interdisciplinary integration but also a manifestation of the interaction between art disciplines and psychology disciplines. To cope with the increasing demand for psychological counseling of college students, colleges and universities need to explore and enrich the forms of mental health education. While art therapy with its unique advantages has generated positive effects on the mental health education of college students. This paper analyzes the characteristics of some popular art therapies and discusses their effect on relieving the mental stress of college students.

Subjects and methods: In this study, 84 student volunteers from a university in Zhejiang Province, China are selected as the research subjects. They are divided into four groups with 21 people in each group. The three experimental groups are treated with music therapy, painting therapy, and dance therapy respectively for two months, while the control group is not given any therapy. The PSS scores of each group are recorded every other week. The test data are uploaded and sorted out in Excel, and correlation analysis is conducted using SPSS24.0.

Results: The PSS score of the control group has no significant change during the experiment ($t = -0.498, P > 0.05$). The PSS score of the music therapy group decreases significantly during the experiment ($t = -3.587, P < 0.01$), the PSS score of the painting therapy group decreases significantly during the experiment ($t = -3.711, P < 0.01$), and the PSS score of the dance therapy group decreases significantly during the experiment ($t = -3.428, P < 0.01$).

Conclusions: Music therapy, painting therapy, and dance therapy can all greatly relieve the mental stress of college students. Relatively speaking, dance therapy has the most significant effect. Music therapy and painting therapy show a slightly weaker but more stable relieving effect.

Key words: art therapy - mental stress - college students - music therapy - painting therapy - dance therapy

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INTRODUCTION

Art therapy, also known as art psychotherapy, is an interventional method of psychotherapy, which mainly spans the two fields of art and psychology. The founder of art therapy was American psychiatrist Margaret Naumburg, who founded the Walden School in 1915 and began to incorporate art into psychotherapy, providing a way to recognize the subconscious (Samaritter 2018). Art therapy officially emerged in the 1940s with the overall goal that patients can apply art in a safe and relaxing environment to achieve change and progress on a personal level. Then it has evolved into an important psychotherapy method (Cheng et al. 2021).

In the 1980s, the American Art Therapy Association defined that art therapy provides non-verbal opportunities for expression and communication. There are two mainstream cognitions in the field of art therapy. One is that art creation is therapy, the process of which can ease emotional conflicts and help self-knowledge and self-growth. The other one is that if art learning is applied to psychotherapy, the works, and the thinking process during art creation are of great significance to maintaining a balanced and consistent relationship between the personal inner heart and the external world (Teoli 2020). Therefore, it can be seen that art therapy has two orientations. One is a psychoanalysis-oriented art therapy mode. In this mode, art becomes a non-verbal

communication medium and helps people express negative emotions and open hearts through the ideas and interpretations related to art creation. The other orientation is towards the essence of art (Kaimal & Arslanbek 2020). Through artistic creation, emotional conflicts can be alleviated, perception ability enhanced, and emotions purified. Both two orientations regard art as a bridge between the personal inner heart and the outer world so that people can release their uneasiness through art creation. During the process of transforming ideas into specific images, individual needs and emotions are conveyed, personality can be adjusted, and art therapy can be improved through sharing and discussion (Gerlitz et al. 2020).

Most college students are in their youth stage, with gradually mature self-awareness, distinct personality characteristics, and rich emotional experience. When faced with multiple pressures from college campuses, families, and society, they have common psychological problems, including difficulty adapting to a new environment, academic problems, employment pressure, interpersonal communication, family relationships, romantic relationships, etc. Therefore, some college students fall into a mental sub-health state dominated by bad emotions under the influence of various stressors (Dugue et al. 2018). Especially since 2020, under the impact of COVID-19, the mental health of college students has been greatly affected, further leading to great psychological pressure and emotional manifestations

such as panic, anxiety, tension, worry, and helplessness. In a survey based on nearly 100,000 college students from 129 colleges and universities across the country, it was found that 23.6% of college students had poor self-emotional evaluations, and 56.2% believed that the epidemic had led to greater psychological pressure (Xu et al. 2021).

This study selected three mainstream forms of art therapy, music, painting, and dance, to explore their effects on relieving mental stress among college students, and to provide a reference for the development of art therapy.

SUBJECTS AND METHODS

Research subjects

In this study, 84 student volunteers from a university in Zhejiang Province, China are selected as the research subjects. All subjects are informed and consented to the research purpose, research method, and use of the scale.

Psychological scale

This study employs the Perceived Stress Scale (PSS) as a reference scale for psychological stress. Generally speaking, psychological stress is defined as the degree to which people believe that their demands exceed their abilities to deal with problems. The perceived stress scale can better measure the stress that people felt in life (Rezaei & Jeddi 2020). Today, PSS has been widely used to measure perceived stress, assess situational stress and the effectiveness of stress reduction interventions, and research psychological stress and mental and physical disorders (Baik et al. 2019). The scale consists of 14 items, including 6 positive items and 8 reverse items. The scale has two dimensions, namely tension and loss of control. A 5-point scoring method is used. The higher the final total score, the more obvious the psychological stress of the subjects. The scoring method is that 1 point stands for “never”, 2 points for “occasionally”, 3 points for “sometimes”, 4 points for “often”, and 5 points for “always”. The range of the final total score is from 14 to 70 points. This scale has demonstrated good reliability and validity, with an alpha coefficient of 0.78. The correlation coefficient between the total score and each item of the scale is ranged from 0.37 to 0.53, manifesting that surface homogeneity and internal consistency is relatively high. If the final score is from 14 to 28, it indicates that the perceived stress is low. A score from 29 to 42 means moderate stress. A score from 43 to 56 means that the perceived stress is high and some measures need to be taken. A score from 57 to 70 indicates that the stress is so high that the body may present some symptoms, meanwhile, it is necessary to adopt urgent measures for decompression and ask for professional help (Cohen et al. 1983).

Art therapy program

Music therapy

Music therapy is an emerging borderline interdisciplinary subject with the integration of music, medicine, and psychology. Bruscia, a famous American music therapist, regards music therapy as a systematic intervention process. In the process, to promote the psychological rehabilitation of patients, therapists employ various musical forms and the therapeutic relationship which is the driver for treatment and develops during the treatment process (de Witte et al. 2022). At present, various music therapy methods widely used in countries worldwide can be divided into three categories, namely reception (or listening) music therapy, participation (or entertainment) music therapy, and improvisational music therapy

This study adopts reception music therapy and the specific methods are as follows. The first step is song discussion. Subjects are guided to choose songs and discuss the meaning of the lyrics after listening. Then subjects are triggered to express emotions and communicate with others, which helps identify their abnormal thinking and behavior (Silverman & Bibb 2018). The second step is music memory. The therapist asks the subjects to choose one or several songs or musical compositions to play in the group. These songs or compositions have special meaning in their own life experiences. The purpose of this step is to evoke the emotions and memories behind the music. The third step is music imagination. Under the guidance of the therapist, the subjects enter a state of relaxation and spontaneously begin free imagination in the background of specially prepared music. After the music, the subjects report the imaginary content to the therapist. Then they discussed the meaning of the imaginary content together, which is conducive to helping subjects understand themselves and experience their inner emotional world (Gebhardt et al. 2018).

Painting therapy

Painting therapy is one of the psychological art therapies. It allows the painter to use non-verbal tools to present the suppressed feelings and conflicts in the subconscious through the art creation process. In the process of painting, the painter could get help in terms of mind, emotion, and thought. For example, they can release negative emotions and pressure, adjust their mentality, repair spiritual wounds, fill gaps in the inner world, and gain a sense of satisfaction, achievement, and self-confidence, so as to achieve good treatment effects (Babaei et al. 2021). In addition, painting therapy is not limited by age, adults or children can both receive positive feedback from it. In the process of painting therapy, the thoughts, emotions and stories of subjects are transferred to the painting works, which are the reflection of the subject's inner heart and require the subject and the therapist to explore the mysteries in it (Mehl et al. 2021).

Dance therapy

Dance therapy, also known as movement therapy, is psychotherapy using the moving process as a medium.

Using dance activities or improvisations to promote the integration of individual sentiments, emotions, body, mind, cognition, and interpersonal relationships, can not only treat physical and mental disorders but also enhance personal awareness and improve people's mentality (Marion 2020). Dance therapy is undoubtedly a good choice when traditional psychotherapy approaches are difficult to approach and treat patients in a verbal way. It has unique characteristics, emphasizes the interconnectedness of emotion and body and creativity, and promotes psychological health. Meanwhile, it helps people fully explore their potential and avoid the side effects caused by drug treatment. In this study, a school gymnasium is chosen as the experimental place, and moderate-intensity dance therapy is performed twice a week, with subjects managed and guided by dance therapists (Fisher 2019).

Research process

The 84 subjects are divided into four groups, including three experimental groups, and one control group, with 21 subjects in each group. Experimental

group one is given music therapy, experimental group two painting therapy, and Experimental group three dance therapy, and the control group receives no therapy. The PSS scores of each group are tested every other week, and the experiment lasts for two months, with nine times of tests in total. The test data are imported into an Excel table for sorting, and SPSS 24.0 is used for correlation analysis.

RESULTS

The experimental data are sorted out. The experimental data greater than $\mu+3\sigma$ or less than $\mu-3\sigma$ are excluded according to the Laida criterion. The One-Sample *t*-test is performed on the arithmetic mean of the initial data with the PSS scores of each group.

The test value of the control group is 52.44, and the results are shown in Table 1. The test value of experimental group one is 51.86, shown in Table 2. The test value of experimental group two is 57.44, shown in Table 3. The test value of experimental group three is 57.44. 61.89, shown in Table 4.

Table 1. *t*-test of control group

	<i>t</i>	Sig. (2-tailed)	Mean difference	95% CI	
				Lower	Upper
Control group	-0.498	0.632	-0.15444	-0.8693	0.5604

Table 2. *t*-test of music therapy group

	<i>t</i>	Sig. (2-tailed)	Mean difference	95% CI	
				Lower	Upper
Music therapy	-3.587	0.007	-7.84000	-12.8806	-2.7994

Table 3. *t*-test of painting therapy group

	<i>t</i>	Sig. (2-tailed)	Mean difference	95% CI	
				Lower	Upper
Painting therapy	-3.711	0.006	-6.51111	-10.5571	-2.4651

Table 4. *t*-test of dance therapy group

	<i>t</i>	Sig. (2-tailed)	Mean difference	95% CI	
				Lower	Upper
Dance therapy	-3.428	0.009	-8.37222	-14.0046	-2.7398

It can be seen from the above data that during the experiment, the PSS score of the control group did not change significantly ($t = -0.498, P > 0.05$). The PSS score of the music therapy group changed significantly, ($t = -3.587, P = 0.007 < 0.01$), and the data in this group are statistically different. The PSS score of the painting treatment group changed significantly, ($t = -3.711, P = 0.006 < 0.01$), and the data in this group are statistically different. The PSS scores of the dance group changed significantly, ($t = -3.428, P = 0.009 < 0.01$), and the data of this group are statistically different.

SPSS24.0 is used to perform descriptive statistics on each group of data, the results are shown in Table 5, and the line graph of data changes is shown in Figure 1.

It can be seen from Table 5 and Figure 1 that the RSS scores of the subjects in the Control Group changed very little before and after the experiment, and the stress status basically maintained the original standard. The RSS scores of the three experimental groups all decreased significantly with $r_3 > r_1 > r_2$ and $\sigma_3 > \sigma_1 > \sigma_2$, which manifests that among the three art therapies, dance therapy has the greatest relief effect. The reason may be that the physical training of subjects is increased in the treatment process. Meanwhile, physical exercise has been

proved to be effective to improve the psychological problems of patients, so it has a synergistic effect with art therapy dance (Johnston et al. 2021). The effect of

painting therapy on relieving mental stress is slightly weaker but most stable. Comparatively, music therapy is more balanced in terms of efficacy and stability.

Table 5. Descriptive statistics of each group of data

	Range	Minimum	Maximum	Mean	Std. Deviation	Variance
Control group	2.62	50.97	53.59	52.2856	0.93000	0.865
Experimental group one	16.96	34.90	51.86	44.0200	6.55757	43.002
Experimental group two	14.09	43.35	57.44	50.9289	5.26369	27.706
Experimental group three	20.08	41.81	61.89	53.5178	7.32744	53.691

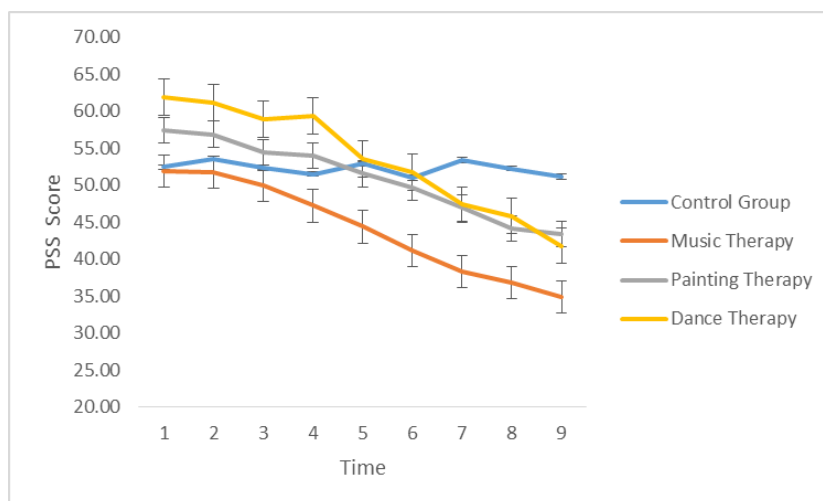


Figure 1. Line graph of data changes

CONCLUSIONS

This study analyzes the effects of such three kinds of art therapy as music, painting, and dance on relieving the mental stress of college students. The study shows that all three schedules can greatly relieve students' mental stress, among which music therapy has the most significant effect, and the effect of music and painting therapy is a bit weaker but more stable.

With its continuous development, art therapy is widely used and plays an increasingly important and unique role in mental health education, enriching the forms of classroom teaching and psychological knowledge promotion. However, some activities overemphasize interestingness yet ignore professionalism, which results in little effect after students' participation (Salz 2021). Therefore, the top priority to ensure the effectiveness of education is to improve the professionalism and scientificity of art therapy. In the future, it is necessary to strengthen the scientific design for teaching and publicity activities, to make art therapy truly meet the needs of students and educational goals. Since the 21st century, art therapy has continuously adapted to the changes in culture, technology, and other aspects of the development of society. For example, there have been technological breakthroughs in art therapy such as virtual reality and mixed reality technology (Haeyen et al. 2021). It is significant to actively carry out relevant research and education about art therapy.

Colleges and universities should strengthen the follow-up of the latest developments in related fields, keep abreast of the research trends, learn about successful cases of art therapy from other countries, and share experiences. Meanwhile, it is necessary to promote the integration of art and scientific practice and to advance the research and practice of China's art therapy in higher education. (Zubala et al. 2021).

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STUDY ON THE EFFECT OF DANCE MOVEMENT THERAPY ON PSYCHIATRIC REHABILITATION OF PATIENTS WITH ANXIETY DISORDERS

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SUMMARY

Introduction: Dance movement therapy is one of the most effective treatments for mental illnesses so far, which is also the easiest one to be promoted. Accompanied by the sound of music, patients use body language to express their feelings and inner conflicts in an almost subconscious state, to achieve the purpose of relieving anxiety. This study selects students from a university in Chongqing Province, China as the research subjects to explore the effect of dance movement therapy on improving anxiety for patients with anxiety disorders.

Subjects and methods: Students who claimed to be troubled by anxiety were invited to participate in the HAMA questionnaire test. 23 volunteers, with a test score greater than 14 points, were selected to participate in the dance movement therapy. The HAMA test was conducted three times at the time of one week, one month, and three months after dance movement therapies, and the test results were recorded. The results were analyzed by the statistical tool SPSS27.0.

Results: There was no significant difference in the total HAMA score of the participants after one week of dance training ($t = 0.581$, $P = 0.567$). The total HAMA score of the participants was statistically significant compared with that before participation after one month of dance training ($t = 7.867$, $P < 0.001$). The total HAMA score of the participants decreased significantly after one month of dance training ($t = 18.346$, $P < 0.001$).

Conclusions: Short-term dance cannot ease anxiety, but the dance movement therapy lasting over one month can effectively improve anxiety.

Key words: dance movement therapy -anxiety disorders - sports - therapeutic effect

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INTRODUCTION

Dance movement therapy, also known as DMT or dance therapy, was proposed by Marian Chace in the 1940s. The therapy is a psychotherapeutic approach that helps treat individuals through movement and non-verbal expressions. It is based on the theory that movement can reflect personal thoughts and emotions, as well as the knowledge of Jungian analytical psychology, Gestalt psychology, and self-psychology (Kiepe et al. 2012). Dance therapy is different from common exercises including martial arts, fitness qigong, aerobics, yoga, and Taijiquan. The American dance therapy association defines it as a method to unify the physical and mental emotions of patients through dance movements (Li et al. 2021). Today's dance therapists believe that dance can enliven a senseless life through the liberation of the limbs, and release the emotions lurking in the heart such as anxiety, anger, sadness, and depression in a safe way, to experience self-existence. This experience of self-existence can effectively relieve depression and strengthen self-cognitive management, thereby effectively regulating anxiety disorders (Engelhard & Vulcan, 2021). Specifically, using the body as the carrier and the dance movement as the form, dance therapy stimulates the psychological problems hidden in the depths through the observation and exploration of the body, to achieve the purpose of catharsis and epiphany

(Kleinlooh et al. 2022).

Anxiety disorders are recognized as a public health problem across the world. According to the estimates by the World Health Organization (WHO), 264 million people worldwide are suffering from anxiety disorders (Vanderlind et al. 2022). Anxiety disorder is different from normal anxiety emotional responses. First, anxiety disorder is a kind of anxiety, tension, and fear without a clear object, content, or reason. Second, it has potential dangers. For example, the patient usually feels that some threat is coming, but he couldn't describe it concretely. Third, anxiety disorder will last for long periods, which may beyond several weeks, months, or even years (Albery et al. 2021). In addition, evidence shows that anxiety disorders often accompany other major chronic conditions. If left untreated, anxiety disorders can lead to physical dysfunction and negatively impact overall health. Not only do simple anxiety disorders have these symptoms, but some psychiatric disorders may also produce anxiety symptoms, such as schizophrenia, obsessive-compulsive disorder, and other mental illnesses. The anxiety symptom is only one of the symptoms of the above psychiatric disorder. The corresponding treatments may be more complicated than those of simple anxiety disorders as other symptoms of such patients should also be considered at the same time. Therefore, these psychiatric disorders should be distinguished from sheer anxiety disorders (Megreya et al. 2021). The current studies prove that physical exercise therapy can