

An Empirical Study on Raw Art Painting for Mental Health Promotion

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Abstract

This study employed the SCL-90 scale to screen and select 66 university students from a university in Guangdong as research participants, and randomly assigned them into an intervention group (n=33) and a control group (n=33) based on the principle of complete randomization. Pre-treatment assessment of the intervention group was conducted using the PANAS scale, SAS scale, and Art Therapy Effectiveness Other-rated Scale, while the control group was assessed using the PANAS scale and SAS scale. Following an 18-week (group counseling) painting art therapy intervention for the intervention group, both groups of participants were evaluated using the SCL-90 scale, PANAS scale, SAS scale, and Art Therapy Effectiveness Other-rated Scale. Comparative analysis of pre-test and post-test data revealed that SCL-90 scale factor scores, SAS scale total scores, PANAS scale scores, and Art Therapy Effectiveness Other-rated Scale total scores all exhibited significant differences, with post-test results significantly outperforming pre-test results, suggesting that Original Art Painting Therapy can effectively promote mental health among university students. Based on these findings, the specific manifestations of Original Art Painting Therapy in promoting mental health were analyzed across three dimensions: cognition, emotion, and social interaction, thereby providing a novel approach for research on mental health education for university students.

Full Text

A Practical Study on Raw Art Painting for Mental Health Promotion Among University Students

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Abstract

This study screened 66 university students from a Guangdong university using the SCL-90 scale and randomly assigned them to an intervention group (n=33) and a control group (n=33). Prior to treatment, the intervention group was assessed using the PANAS scale, SAS scale, and Art Therapy Effectiveness Rating Scale, while the control group was assessed using only the PANAS and SAS scales. After 18 weeks of group painting art therapy for the intervention group, both groups were evaluated using the SCL-90, PANAS, SAS, and Art Therapy Effectiveness Rating Scale. Comparative analysis of pre- and post-test results revealed significant differences in SCL-90 factor scores, total SAS scores, PANAS scores, and total Art Therapy Effectiveness Rating Scale scores, with post-test results significantly better than pre-test results, indicating that raw art painting therapy can promote mental health among university students. Based on these findings, this paper analyzes the specific manifestations of raw art painting therapy in promoting university student mental health from three dimensions—cognition, emotion, and social interaction—providing a new approach for research on university student mental health education.

Keywords: Raw Art; Painting Therapy; University Student Mental Health; Promotion

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The concept of “raw art” (art brut) was proposed by Jean Dubuffet in the 1940s, who defined it as “art driven by spontaneous inner impulses or even the subconscious that breaks conventional norms,” also known as “outsider art.” The emergence of raw art laid the foundation for the clinical application of painting in psychology. “Raw art therapy” refers to a planned psychotherapeutic process conducted under the guidance of psychological counselors or psychotherapists, with theoretical foundations, aimed at promoting mental health and psychiatric rehabilitation. The “raw art painting” therapy discussed in this paper falls within the category of painting art therapy.

In international mental health research, the concept of art therapy was first explicitly proposed and established by American physician Margaret Naumburg in the 1930s. “Art Therapy” refers specifically to painting art therapy, which involves creating art using traditional tools such as pencils, watercolors, and oils in psychotherapy. In domestic research, however, “Art Therapy” is often used as an umbrella term encompassing painting art therapy, music art therapy, dance art therapy, drama art therapy, and others. To avoid ambiguity in understanding painting art therapy in this paper, we define “Art Therapy” specifically as painting art therapy. Numerous studies have demonstrated the significant rehabilitative effects of raw art painting on psychiatric patients, yet its application in university student mental health education remains underex-

plored. This paper attempts to investigate the effectiveness of raw art painting therapy in promoting university student mental health.

1. Feasibility Analysis

Art therapy has become a research hotspot in mental health education, psychological counseling, and clinical psychotherapy in China over the past two decades. Painting therapy has primarily been applied as an adjunct to psychiatric treatment, post-disaster psychological intervention, and psychological work with patients with schizophrenia and neurosis. Building upon existing research findings on painting art therapy and focusing on the goal of psychological education for university students, this paper explores the feasibility of applying raw art painting therapy to promote university student mental health. First, raw art painting therapy easily establishes a value-neutral therapeutic space, circumventing issues related to social moral standards. Second, it offers advantages of high acceptability, simple procedures, and reduced self-defense mechanisms, facilitating the creation of a relaxed and equal therapeutic environment. Third, in mental health education, clients often struggle to articulate their emotions verbally, leading to suboptimal counseling outcomes. Raw art painting therapy is not limited by age, language, cognitive ability, location, or environment, making its flexibility well-suited for mental health education among university students. Fourth, painting therapy has become a gateway to studying humanistic medical models in recent years, focusing more on human attributes and essence in university student mental health education. Research on the promotion of raw art therapy holds significant academic value, provides reference for interdisciplinary research integrating art and psychology on university student mental health, and offers a theoretical basis for studying the universality and effectiveness of raw art painting in mental health treatment.

All 66 participants were university students from Guangdong institutions, aged 18 to 22 years (mean age = 20 years). The SCL-90 scale was used to assess students' mental health levels, and participants were randomly assigned to an intervention group (n=33) and a control group (n=33).

2.2 Research Instruments

This study assessed both groups using the SCL-90 Self-Report Scale, SAS Self-Rating Anxiety Scale, Positive and Negative Affect Schedule (PANAS), and Art Therapy Effectiveness Rating Scale.

2.2.1 SCL-90 Self-Report Scale

Each item on this scale uses a 1-5 rating system: none (1 point), mild (2 points), moderate (3 points), severe (4 points), and extreme (5 points). The scale evaluates participants across ten dimensions: somatization, obsessive-compulsive symptoms, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety,

ety, paranoid ideation, psychoticism, and additional items, covering emotional, behavioral, habitual, interpersonal, and sleep-related aspects.

2.2.2 SAS Self-Rating Anxiety Scale

Each item on this scale uses a 1-4 rating system: rarely (1 point), sometimes (2 points), often (3 points), and always (4 points). The scale primarily assesses the presence of anxiety disorders. Total scores are calculated by summing all items. According to Chinese norms, the cutoff score is 50, with 50-59 indicating mild anxiety, 60-69 moderate anxiety, and 70+ severe anxiety.

2.2.3 PANAS Scale

Each item on this scale uses a 1-5 rating system: very slightly or not at all (1 point), a little (2 points), moderately (3 points), quite a bit (4 points), and extremely (5 points). The scale assesses participants' scores on two factors: positive affect and negative affect. High positive affect scores indicate energetic and happy states, while high negative affect scores indicate distressed and painful states.

2.2.4 Art Therapy Effectiveness Rating Scale

This study adopted the Art Therapy Effectiveness Rating Scale developed by Dr. Qiu Hongzhong. Each item uses a 1-5 rating system. The scale evaluates participants' behavioral changes during the painting process based on activity duration, attitude, emotion, initiative, and expressive quality of artworks, and assesses artworks based on theme, composition, lines, color tone, and emotional expression [5]. The two subscales—Painter Activity Assessment and Artwork Change Assessment—each have score ranges of 5-25 points, with the total score being the sum of both subscales. This scale was used only for the intervention group, with higher total scores indicating more pronounced effects of raw art painting therapy.

2.3 Research Design

This study employed a randomized pre-test/post-test design. First, 66 participants were screened using the SCL-90 scale and randomly assigned to intervention and control groups. Second, pre-treatment assessments were conducted using the PANAS, SAS, and Art Therapy Effectiveness Rating Scale for the intervention group, and the PANAS and SAS for the control group. Third, the intervention group received 18 weeks of group painting art therapy. Fourth, post-treatment assessments were conducted using the SCL-90, PANAS, SAS, and Art Therapy Effectiveness Rating Scale for the intervention group, and the SCL-90, PANAS, and SAS for the control group, to explore the practical effectiveness of raw art painting therapy in promoting university student mental health.

3.1 Pre-Treatment Baseline Results

Before raw art painting therapy, both groups completed the SCL-90 Self-Report Scale, SAS Self-Rating Anxiety Scale, and PANAS. Independent samples t-tests on the three scales' scores revealed no statistically significant differences between groups ($P > 0.05$).

3.2 Post-Treatment SCL-90 Self-Report Scale Results

After the intervention group received raw art painting therapy, both groups completed the SCL-90, and paired samples t-tests were conducted on the intervention group's pre- and post-test scores. Results (see Table 1) showed that post-treatment SCL-90 factor scores for the intervention group were significantly lower than those of the control group, with statistically significant differences ($P < 0.05$). Results (see Table 2) showed that post-treatment SCL-90 factor scores for the intervention group were significantly lower than pre-treatment scores, with all differences statistically significant ($P < 0.05$).

3.3 Post-Treatment SAS Self-Rating Anxiety Scale Results

After the intervention group received raw art painting therapy, both groups completed the SAS, and paired samples t-tests were conducted on the intervention group's pre- and post-test scores. Results (see Table 3) showed that post-treatment total SAS scores for the intervention group were significantly lower than those of the control group, with statistically significant differences ($P < 0.05$). Results (see Table 4) showed that post-treatment total SAS scores for the intervention group were significantly lower than pre-treatment scores, with statistically significant differences ($P < 0.05$).

3.4 Post-Treatment PANAS Results

After the intervention group received raw art painting therapy, both groups completed the PANAS, and paired samples t-tests were conducted on the intervention group's pre- and post-test scores. Results (see Table 5) showed that post-treatment positive affect in the intervention group was significantly higher than in the control group, while negative affect was significantly lower, with both differences statistically significant ($P < 0.05$). Results (see Table 6) showed that post-treatment positive affect in the intervention group was significantly higher than pre-treatment, while negative affect was significantly lower, with both differences statistically significant ($P < 0.05$).

3.5 Post-Treatment Art Therapy Effectiveness Rating Scale Results

The Art Therapy Effectiveness Rating Scale was administered to the intervention group before and after treatment, and paired samples t-tests were conducted

on pre- and post-test scores. Results (see Table 7) showed that post-treatment scores for painter behavior, artwork quality, and total scale score were all higher than pre-treatment scores, with statistically significant differences ($P < 0.05$).

4. Discussion and Research

Based on the above test results, this section analyzes the specific manifestations of raw art painting therapy in promoting university student mental health from three dimensions—cognition, emotion, and social interaction—providing new pathways for research on university student mental health education.

4.1 Raw Art Painting Therapy Significantly Improves Cognitive Function in University Students

To examine the impact of raw art painting therapy on cognitive function in university students, we must first clarify the concept of cognition. Cognition includes self-observation and self-evaluation. Self-observation involves awareness of one's own perceptions, thoughts, and intentions, while self-evaluation involves understanding and assessing one's own thinking, behavior, and personality traits, serving as an important condition for self-regulation [6]. According to the test results, after 18 weeks of raw art painting therapy, all measured indicators of cognitive function—including sensation, thinking, and behavior factors on the SCL-90, and positive and negative affect factors on the PANAS—showed significant differences. The findings indicate that raw art painting therapy effectively promotes integrated cognitive function in university students. First, the creative process of painting is itself a cognitive process. Art psychology considers painting a natural means of expressing the subconscious. The raw, natural, and authentic qualities of raw art provide psychotherapists with realistic sources for conducting pre- and post-test painting therapy. Under guided instructions, intervention group participants gradually engaged in group counseling, generating awareness of their own perceptions, thoughts, and intentions during the painting process and expressing their ideas freely in visual images. Raw art painting therapy aims to “treat” by exercising visual thinking and imagination through the language of painting, and improving cognitive levels through the “painting” method. Second, painting therapy provides participants with a space that is both “real” and “unreal,” where they can locate both their internal and external realities. Participants project inner emotions and feelings onto visual images, blurring the boundary between internal and external reality and presenting a state that is both independent and connected, representing “self-observation” and “self-evaluation” as visual metaphors. The visual metaphors discussed in this paper emphasize the visual images used for expression and communication in raw art painting therapy. To understand visual metaphors, we must first clarify the concept of visual perception. “Visual thinking,” proposed by Rudolf Arnheim, is also known as visual perception, comprising both thinking and perceptual components. Visual formation relies not only on the eye's function of capturing objects but also on instantaneous perceptual judgment during direct

contact between vision and objects. This process generates new imagery during perceptual selection, building a bridge between perception and thought and connecting representational reality with abstract thinking—an instinctive human behavior. Participants' painting activities activated perception-related activities connected to emotions, which were encoded into visual symbols through visual perception, becoming visual metaphors in painting therapy. Psychotherapists can directly access participants' inner subconscious worlds through these visual metaphors to complete psychotherapy. Raw art painting therapy can reduce self-defense mechanisms in intervention group participants and access psychological content more easily than verbal expression. Therefore, implementing raw art painting therapy among university students can enhance their cognitive levels.

4.2 Raw Art Painting Therapy Significantly Improves Emotional Function in University Students

By observing changes in pre- and post-test data, this study analyzed differences in mental health assessment scores from multiple dimensions—the SCL-90 Self-Report Scale, SAS Self-Rating Anxiety Scale, PANAS Positive and Negative Affect Schedule, and Art Therapy Effectiveness Rating Scale—distinguishing itself from previous studies that analyzed participants' mental health from a single dimension. After 18 weeks of raw art painting therapy, post-test results showed significant improvement in emotional factors on the SCL-90, total SAS scores, and negative affect on the PANAS, suggesting that raw art painting therapy effectively improves emotions in university students. These findings align with existing domestic and international research. Reese investigated the effectiveness of painting therapy for emotional expression in emotionally/behaviorally disturbed children aged 5-12 [7]. Carolan used painting therapy to study emotionally disturbed adolescents and found that painting therapy helps adolescents express their emotions [8]. Cameron studied the effectiveness of painting therapy in intervening with negative emotions related to aging and death in older adults. First, the creative process of painting is also a process of emotional expression. When psychotherapists encounter participants who cannot successfully express their emotional experiences verbally, it hinders the progress of psychotherapy. According to the theory of cerebral hemisphere functional specialization, psychological functions such as music, painting, and emotion are controlled by the right hemisphere of the brain. Painting activities help stimulate the right hemisphere's control over emotion, enabling participants to fully and richly express suppressed conflicting emotions. Second, the creative process of painting is also a process of emotional release. The learning, social, and living patterns of today's university students have changed significantly, and traditional psychotherapy may make it difficult for participants to let down their guard and feel apprehensive during treatment. The symbolic nature and value neutrality of raw art help participants eliminate resistance to psychotherapy, establish trust with psychotherapists, release suppressed subconscious content, and reduce anxiety and stress. Third, the creative process of painting is also

a process of emotional intervention. The content of raw art painting provides participants with visual metaphors for self-expression and self-discovery, allowing them to express emotions from both conscious and unconscious levels. The form of raw art painting can construct a raw, natural, and authentic protective mechanism for participants to express their emotions. Therefore, raw art painting therapy effectively promotes emotional function improvement in university students.

4.3 Raw Art Painting Therapy Significantly Improves Social Function in University Students [9]

University students from the post-2000 generation, as digital natives, often experience anxiety, unease, and fear in interpersonal interactions, worry about being noticed by others or fear becoming the focus of attention, and may even exhibit avoidance behaviors. This study's pre- and post-test results from the SCL-90 Self-Report Scale, SAS Self-Rating Anxiety Scale, and PANAS Positive and Negative Affect Schedule, which address cognitive, emotional, behavioral, and interpersonal aspects of university student social interaction, showed significant differences in all assessment scores. The findings indicate that raw art painting therapy helps improve social function in university students. As discussed above, raw art painting therapy demonstrates significant effects on participants' cognition from the perspectives of self-observation and self-evaluation, and significant improvements in cognition also contribute to improvements in social function. First, cognition serves as the determining factor in participants' psychological activities, with emotions and behaviors subject to cognitive control. Adapting to negative emotions and behaviors requires first addressing maladaptive cognitions. Second, psychological counselors help participants reconstruct cognitive structures through painting therapy. Participants' emotion-related perceptual activities are activated, encoded into visual symbols through visual perception, and complete the process of re-observing and re-evaluating themselves. During group counseling, participants are guided to change their cognitions and maladaptive behaviors, with the goal of guiding them to adapt to negative emotions and behaviors and generate new emotions and behaviors, using raw art painting therapy to help participants develop useful cognitive behaviors. Furthermore, participants can vent their anxiety, unease, and fear about interpersonal interactions into visual metaphors within a calm, joyful, and pleasant protective space, reducing conflict emotions in interpersonal relationships. Therefore, implementing raw art painting therapy among university students can enhance their social abilities.

In summary, raw art painting can effectively promote mental health among university students, providing new perspectives and approaches for university student mental health education. This paper explores the effects of raw art painting on university student mental health promotion through empirical pre-post test research, but has several limitations: First, the research team seriously lacks members with expertise in both psychology and art, and the researchers'

professionalism needs improvement. Second, this study only selected lower-grade students as participants, and the applicability of this practical research to university students of different age groups needs further exploration. Third, this study did not conduct follow-up recordings at different time points after treatment completion, such as 1 month, 3 months, or 6 months post-treatment; the durability of raw art painting therapy effects requires further investigation.

5. References

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Note: Figure translations are in progress. See original paper for figures.

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