

# A Review of the Application Research of Dance Therapy

**Jiamei Li**

Xi'an Vocational and Technical College, Xi'an 710077, Shaanxi, China

**Copyright:** © 2025 Author(s). This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC BY 4.0), permitting distribution and reproduction in any medium, provided the original work is cited.

## Abstract

Dance Movement Therapy (DMT), as an important branch of expressive arts therapy, promotes the integration of an individual's emotions, cognition, physiology, and sociality through non-verbal means such as body movement, dance, and improvisation, achieving psychological healing and health improvement. In recent years, domestic research on this topic has become increasingly abundant, with intervention subjects covering both general and special populations, and intervention settings spanning various fields including universities, medical institutions, drug rehabilitation centers, and elderly care facilities, forming a diverse research landscape. This review, based on existing research literature, systematically summarizes the application effects, intervention characteristics, and research prospects of DMT, providing references for practice and research in this field.

## Keywords

Dance Movement Therapy; Mental Health; College Students; Special Populations; Applied Research

*Online publication:* September 26, 2025

## 1. Application Research Results of Different Groups

### 1.1. College Students: Focusing on Mental Health and Social Development

College students are one of the core groups in dance movement therapy research, with studies mainly concentrating on the improvement of emotional regulation, social skills, and self-awareness. Kong Lingjun<sup>[1]</sup> et al. conducted an 8-week dance intervention (once a week, 60 minutes each time) on 54 college students and found that the experimental group had significantly higher scores in emotional regulation self-efficacy and subjective well-being than the control group ( $P < 0.05$ ). Guo PuJia<sup>[2]</sup> et al. found that an 8-week dance

therapy program significantly increased the total score of emotional regulation self-efficacy and the scores of five factors (such as expressing happiness/excitement and expressing pride) in the experimental group, while reducing the total score of interpersonal distress and the scores in dimensions such as interpersonal communication and making friends ( $P < 0.05$ ).

In terms of anxiety intervention, Lei Ting<sup>[3]</sup> et al. (2020) found that dance movement therapy (DMT) could enhance positive emotions in college students with mild to moderate anxiety, and their accuracy rate in the word-face Stroop task was significantly higher than that of the ordinary dance group. Zhao Ya Qin<sup>[4]</sup> confirmed that an 8-week dance movement group psychological

counseling could significantly improve college students' self-acceptance and interpersonal trust, achieving psychological improvement through factors such as awareness, expression, and group support.

## 1.2. Special Groups: Achieving Dual Physical and Mental Interventions

### 1.2.1. Patients with Mental Disorders

Dance movement therapy is widely used in the auxiliary treatment of patients with schizophrenia, anxiety disorders, depression, etc. Zhang Yuchuan<sup>[5]</sup> et al. divided 96 patients with schizophrenia into two groups. After the treatment group received mindfulness-based cognitive therapy combined with dance movement therapy, their scores for mental disorder symptoms, cognitive function, sleep quality, and self-care ability were significantly better than those of the conventional care control group ( $P < 0.05$ ). Ji Aijian<sup>[6]</sup> et al. found that clown care psychological intervention combined with dance art therapy could significantly reduce the clinical symptoms and negative coping scores of patients with schizophrenia, and improve their cognitive function, psychological resilience, and positive coping scores ( $P < 0.05$ ).

For patients with anxiety disorders and depression, Huang Wangying<sup>[7]</sup> et al. found that psychological care combined with dance movement therapy could significantly lower the scores of the Hamilton Anxiety Scale (HAMA) and the Hamilton Depression Scale (HAMD) compared to the conventional care group ( $P < 0.01$ ); group painting therapy combined with dance intervention could enhance the self-efficacy and quality of life scores of patients with depression, and the total effective rate of treatment was significantly higher than that of the control group ( $P < 0.05$ )<sup>[8]</sup>. Wen Qing<sup>[9]</sup> et al. further confirmed that dance movement therapy combined with virtual reality technology could improve the psychotic symptoms and depressive mood of patients with schizophrenia, and enhance their cognitive function and quality of life.

### 1.2.2. Drug rehabilitation patients

For drug rehabilitation patients such as methamphetamine (MA) addicts, dance movement therapy, as one of the exercise intervention methods, has shown significant effects in improving emotional and physiological

indicators. Huo Yuhang<sup>[10]</sup> divided 36 female compulsory drug rehabilitation patients into a dance movement group, an aerobic exercise group, a Baduanjin group, and a control group. After 12 weeks of intervention, the scores of anxiety, depression, and drug craving in the three exercise groups were significantly better than those in the control group ( $P < 0.01$ ). Among them, the dance movement group showed outstanding performance in improving oxidative stress, with a significant decrease in serum MDA levels and a significant increase in SOD levels ( $P < 0.05$ ).

He Wei<sup>[11]</sup> found that 12 weeks of dance movement therapy could significantly reduce the anxiety and depression levels of compulsory drug rehabilitation patients and increase the levels of serum neurotrophic factors such as BDNF and GDNF ( $P < 0.05$ ). Zhao Ruicong<sup>[12]</sup> confirmed that the serum CORT level in the dance movement group was significantly lower than that in the control group, while the levels of NE and AD were significantly higher ( $P < 0.05$ ), indicating that dance movement therapy can improve the mental health of drug rehabilitation patients by regulating stress hormone levels. Ding Jiarao<sup>[13]</sup> further discovered that dance movement training was more effective than aerobic physical training in regulating neurotransmitters such as 5-HT and GABA, and had more advantages in improving depressive mood.

### 1.2.3. Special Children

Dance movement therapy is widely applied among special children groups such as those with autism, intellectual disabilities, and emotional and behavioral disorders. Yang Jialei's<sup>[14]</sup> case study demonstrated that dance movement therapy can significantly increase the frequency and duration of active social interactions among children with autism, and the effect is stable. Yuan Shuai<sup>[15]</sup> divided 16 children with mixed ADHD into a combined intervention group (EEG biofeedback + dance movement therapy) and a simple EEG group. The results showed that the combined group had better effects in improving conduct problems, attention, and control ability.

Xu Linkang<sup>[16]</sup> pointed out that dance movement therapy can enhance the communication and coordination abilities of children with intellectual disabilities and reduce their emotional and behavioral problems. Lei Jianjie<sup>[17]</sup> proposed a multimodal intervention strategy

of “dance + game/drama/painting”, providing a new rehabilitation path for children with emotional and behavioral disorders. Additionally, the “Rehabilitation Manual for Autistic Children through Dance Therapy”<sup>[18]</sup> proposed a model combining EEG biofeedback and dance movement therapy, offering practical references for the treatment of autistic children.

#### 1.2.4. Elderly Population

The improvement of motor function and mood in the elderly is a key focus of dance movement therapy research. Fu Juan<sup>[19]</sup> developed a dance intervention program based on the Health Behavior Process Approach Theory and found that after intervention in elderly people in nursing homes, the intervention group had significantly better motor function, lower extremity function (SPPB), grip strength, and exercise self-efficacy scores than the control group ( $P < 0.05$ ), and the effect was maintained for one month after the intervention. Zhang Dongxiao<sup>[20]</sup> confirmed that an 8-week dance group counseling program could significantly reduce the Geriatric Depression Scale (GDS) scores of elderly people in nursing homes, and individual intervention could also effectively improve depressive mood.

For elderly patients with mild cognitive impairment (MCI) combined with depressive symptoms, Zhao Yu<sup>[21]</sup> found that after three months of three 60-minute square dance interventions per week (incorporating elements of dance movement therapy), the patients’ Montreal Cognitive Assessment (MoCA-P) scores significantly increased, and their Geriatric Depression Scale (GDS-30) scores significantly decreased. The effect remained stable after a three-month follow-up ( $P < 0.05$ ).

### 1.3. Other Groups: Expanding Application Scenarios

#### 1.3.1. Professional Groups

Xuan Xi<sup>[22]</sup> et al. found that dance movement therapy could significantly reduce the emotional exhaustion and cynicism dimensions of job burnout among 60 college counselors, and enhance personal accomplishment and self-efficacy ( $P < 0.05$ ). Zhu Hongjin<sup>[23]</sup> confirmed that dance movement therapy could improve job burnout among mental health care workers, especially in enhancing personal accomplishment.

#### 1.3.2. Cancer Patients

Zhong Hongying<sup>[24]</sup> et al. discovered that dance movement therapy could lower the anxiety (SAS) and depression (SDS) scores of breast cancer patients undergoing postoperative chemotherapy, and increase the scores of five dimensions of quality of life ( $P < 0.05$ ). Xie Zhifen<sup>[25]</sup> et al. showed that a five-week dance intervention could significantly reduce the self-perceived burden and psychological distress of nasopharyngeal carcinoma patients undergoing radiotherapy and chemotherapy ( $P < 0.05$ ).

#### 1.3.3. Adolescents and Rural Teachers

Tang Yi<sup>[26]</sup> et al. proposed that dance movement therapy could improve the psychological state of newly incarcerated juvenile delinquents, achieving body and mind integration through Laban movement analysis. Liu Qin<sup>[27]</sup> explored the role of dance movement therapy in enhancing the mental health of rural teachers, providing a new approach for psychological intervention among educators.

## 2. Characteristics of Dance Movement Therapy Interventions

### 2.1. Features of Intervention Programs

In existing studies, the intervention period of dance movement therapy mostly ranges from 5 to 12 weeks, with 8 weeks being the most common. The intervention frequency is mainly 1 to 3 times per week, and a duration of 60 to 90 minutes per session is more effective. A meta-analysis shows that an intervention dose of 5 to 8 weeks, 1 to 2 times per week, and 61 to 90 minutes per session can achieve significant improvements in mental health. The intervention forms include individual dance movement therapy, group dance movement counseling, and combined interventions (such as combining mindfulness cognitive therapy, clown care, art therapy, etc.). Among them, combined interventions are more commonly used in patients with mental disorders and depression, and have better effects than single interventions<sup>[28]</sup>.

### 2.2. Evaluation Index System

The evaluation indicators cover three dimensions: psychological, physiological and behavioral.

Psychological indicators include scores of scales such as anxiety (SAS, HAMA), depression (SDS, HAMD, GDS), self-efficacy, self-acceptance, and interpersonal trust; physiological indicators involve serum neurotransmitters (5-HT, GABA, Glu), neurotrophic factors (BDNF, GDNF), oxidative stress indicators (MDA, SOD, CAT), and stress hormones (CORT, NE, AD); behavioral indicators include frequency of social interaction, motor function, self-care ability (Barthel Index), and psychotic symptoms (BPRS, SDSS). Some studies also incorporate qualitative assessment (interviews, subjective reports, work analysis) to enhance the credibility of the results.

### 3. Existing Problems and Research Prospects

#### 3.1. Existing Problems

##### 3.1.1. Insufficient research depth

Some research samples are relatively small (mostly 20-50 people), and are concentrated in a single region or institution, with limited representativeness; long-term follow-up studies on special groups (such as rural left-behind children and children with intellectual disabilities) are scarce, and data on the stability of effects is insufficient.

##### 3.1.2. Lack of standardization

Dance movement therapy intervention plans vary significantly due to differences in researchers and intervention subjects, lacking unified operational norms; the qualification certification system for therapists is incomplete, and some studies do not clearly specify the professional background of therapists, affecting the consistency of intervention quality.

##### 3.1.3. Weak mechanism research

Most studies focus on verifying intervention effects, with insufficient exploration of the internal mechanisms of dance movement therapy in improving mental health (such as neurophysiological mechanisms and psychological pathways), especially a lack of empirical research combining brain science.

##### 3.1.4. Limited application

The operability in community, rural and other grassroots

scenarios is relatively weak, and some interventions rely on professional equipment or venues, making promotion difficult.

#### 3.2. Research Prospects

##### 3.2.1. Expand the scope of research

Increase the sample size and conduct multi-center studies, pay more attention to vulnerable groups (such as rural left-behind children and people with disabilities); explore the application of dance movement therapy in psychological crisis intervention during public health emergencies.

##### 3.2.2. Improve the standardization system

Develop targeted intervention plans based on the characteristics of different groups, establish qualification certification standards and training systems for dance movement therapists, and ensure the quality of intervention.

##### 3.2.3. Deepen mechanism research

Combine electroencephalogram biofeedback, fMRI and other technologies to explore the mechanism of dance movement therapy on neurotransmitters and brain functions; analyze the quantitative relationship between intervention dosage (cycles, frequency) and effects, and optimize intervention plans.

##### 3.2.4. Innovate application models

Develop low-cost and easy-to-promote intervention forms, such as dance movement intervention combined with virtual reality (VR) technology; promote the integration of dance movement therapy with social work and community care, and build a diversified service system.

### 4. Conclusion

Dance movement therapy, as a diversified psychological intervention approach, has demonstrated significant effects in improving emotional disorders, social functions, physiological indicators, and quality of life among various groups. Its core feature of non-verbal expression compensates for the limitations of traditional talk therapy, making it particularly suitable for individuals with

communication difficulties or suppressed emotions. In the future, through standardization construction, in-depth mechanism research, and innovative application models, the development of dance movement therapy in clinical

treatment, mental health education, and community services should be promoted towards standardization and popularization, providing effective physical and mental healing support for more people.

### Disclosure statement

The author declares no conflict of interest.

## References

- [1] Kong L J, Pang J, Tao A J, et al., 2024, The Effect of Dance Movement Therapy on College Students' Emotional Regulation Self-Efficacy and Subjective Well-Being. *Research in University Logistics*, (09): 80-84.
- [2] Guo P J, Pang J, Tao A J, et al., 2024, Intervention Study of Dance Therapy on College Students' Emotional Regulation Self-Efficacy and Interpersonal Relationship Distress. *Research on College Logistics*, (08): 76-80.
- [3] Lei T, Du X R, Hu J, 2022, Study on the Effects of Dance Movement Therapy on Emotion and Cognitive Ability of College Students with Mild to Moderate Anxiety // Chinese Psychological Society. *Proceedings of the 24th National Academic Conference of Psychology*. Guangzhou Sport University, 556-557.
- [4] Zhao Y Q, 2017, An Intervention Study on the Effects of Group Dance Counseling on College Students' Self-Acceptance and Interpersonal Trust. Guangxi Normal University.
- [5] Zhang Y C, Ye M L, 2024, The Effect of Mindfulness Cognitive Therapy Combined with Dance Movement Therapy on Patients with Schizophrenia. *Gansu Medical Journal*, 43(09): 846-848.
- [6] Ji A J, Wang X H, Sun C C, 2024, Effect of Clown Care Psychological Intervention Combined with Dance Movement Therapy on Clinical Symptoms and Cognitive Function in Patients with Schizophrenia. *Psychological Monthly*, 19(12): 139-141.
- [7] Huang W Y, Mo L L, Su X Q, et al., 2023, The Effect of Psychological Care Combined with Dance Therapy on the Rehabilitation of Patients with Anxiety Disorders. *Medical Theory and Practice*, 36(17): 3031-3033.
- [8] Yang J J, 2020, The Effects of Group Painting Therapy Combined with Movement Intervention on Self-Efficacy and Quality of Life in Patients with Depression. *Nursing Practice and Research*, 17(16): 156-157.
- [9] Wen Q, Zhou L, Yan Y, 2023, The Rehabilitation Effects of Dance Therapy and Virtual Reality Technology on Patients with Schizophrenia. *International Journal of Psychiatry*, 50(06): 1310-1314.
- [10] Huo Y H, 2024, A Comparative Study on the Effects of Different Exercise Modalities on Oxidative Stress and Withdrawal in Female Methamphetamine Dependents. Southwest University.
- [11] He W, 2024, A Study on the Effects of Different Exercise Methods on Serum Neurotrophic Factors in Individuals with Depression Undergoing Mandatory Drug Rehabilitation. Southwest University.
- [12] Zhao R C, 2024, An Empirical Study on the Effects of Different Exercise Interventions on Stress Hormone Levels and Mental Health of Female Drug Rehabilitation Participants. Southwest University.
- [13] Ding J R, 2024, Research on the Effects of Different Forms of Aerobic Exercise on 5-HT, Glu, GABA Levels and Depression in Female Drug Addicts. Southwest University.
- [14] Yang J L, 2021, Research on the Intervention Effect of Dance Movement Therapy on the Social Skills of Children with Autism. *Dance Life*, (18): 121-123.
- [15] Yuan L, 2017, Study on the Training Effects of EEG Biofeedback Combined with Dance Therapy for Children with

Combined-Type ADHD. Central China Normal University.

- [16] Xu L K, 2020, Research on the Application of Dance Therapy in the Rehabilitation Intervention of Children with Intellectual Disabilities. *Journal of Suihua University*, 40(07):61-64.
- [17] Lei J J, 2020, Intervention Strategies of Multimodal Movement Therapy for Children with Emotional and Behavioral Disorders. *Cultural Industry*, (09): 151-153.
- [18] Kong Y, Hu J J, 2022, “Handbook of Dance Therapy Rehabilitation for Children with Autism” Publication: Study on the Training Effect of EEG Biofeedback Combined with Dance Therapy for Children with Autism. *Journal of Interventional Radiology*, 31(06): 637.
- [19] Fu J, 2024, The Impact of Dance Therapy on the Motor Function of Elderly People in Elderly Care Institutions. *Xinxiang Medical University*.
- [20] Zhang D X, 2021, Group and individual intervention study of dance movement therapy on depressive emotions of elderly people in elderly care institutions. *Central China Normal University*.
- [21] Zhao Y, 2019, Research on the Intervention Effect of Square Dancing on Elderly Patients with Mild Cognitive Impairment and Depressive Symptoms. *Peking Union Medical College*.
- [22] Xuan X, Xu S, Chen Y, et al., 2016, Research on the Intervention of Dance/Movement Therapy on Occupational Burnout of University Counselors. *Psychological and Behavioral Research*, 14(05): 697-700.
- [23] Zhu H J, 2022, Study on the Relationship and Intervention of Occupational Burnout, Mental Health, and Personality Traits among Psychiatric Medical Staff. *Chongqing Medical University*.
- [24] Zhong H Y, Liu Z D, Ding X M, 2019, The effect of dance therapy on the psychological status and quality of life of breast cancer patients after surgery and chemotherapy. *Chinese Rural Medicine*, 26(20): 49-50.
- [25] Xie Z, Wang J, Xie J H, et al., 2024, The effect of dance therapy intervention on self-perceived burden and psychological distress in patients with nasopharyngeal carcinoma undergoing radiotherapy and chemotherapy. *Contemporary Nurse (Early Issue)*, 31(09): 91-95.
- [26] Tang Y, Li H J, 2021, Study on the Physical and Mental Intervention of Laban Movement Education for People with Visual Impairments. *Journal of Beijing Dance Academy*, (01): 128-135.
- [27] Liu Q, 2023, Analysis of the Impact of Dance Therapy on Improving the Mental Health of Rural Teachers. *Art Appreciation*, (20): 179-182.
- [28] Wen Q, Zhou L, Yan Y, 2023, The Rehabilitation Effects of Dance Therapy and Virtual Reality Technology on Patients with Schizophrenia. *International Journal of Psychiatry*, 50(06): 1310-1314.

**Publisher's note**

*Whoice Publishing remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.*