

Current Situation of Occupational Therapy for Adolescent Depression in China

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Abstract

In recent years, the incidence of adolescent depression has increased year by year, and the western medicine often used to treat depression is often accompanied by obvious side effects. Although the treatment of depression in Traditional Chinese medicine is effective and the side effects are relatively small, there is a lack of objective evaluation criteria for the efficacy. Occupational therapy can significantly improve the clinical symptoms of adolescent depression patients without side effects, its treatment of adolescent depression is mainly divided into three types, namely cognitive behavioral therapy, occupational activity therapy (occupational exercise therapy), improved Morita therapy. However, there are still some problems, such as the popularization of occupational therapy is not enough, the awareness and attention of adolescent depression is poor, and the education level of therapists is not enough.

Keywords

Occupational therapy; Adolescent; Depression; Occupational therapy.

1. Introduction

Adolescent depression is a kind of mental disease mainly manifested by significant and persistent low mood and lack of interest. The incidence rate is increasing year by year, which not only seriously harms the academic and physical and mental health of minors, but also endangers the quality of life of caregivers of adolescent depression patients [1, 2]. At present, depression is relatively poorly valued in China, and many parents will attribute adolescent depression symptoms to rebellious adolescence, thus delaying the diagnosis and treatment of adolescent depression. Therefore, the early detection, diagnosis and effective treatment of adolescent depression are of great significance. On the other hand, teenagers are in the growth stage, and many parents resist the use of drug treatment with significant side effects, preferring non-drug treatment. As a kind of non-drug therapy, occupational therapy can improve the cognitive function of patients, promote the development of emotion and sociality and make them return to the society, which has a significant improvement effect on the depressive symptoms of adolescent patients.

2. Specificity of Adolescent Depression

2.1. Risk Factor

Major depression is the leading cause of disability in the world. Immature and adolescent brains are more susceptible to genetic and environmental influences than adult brains. Therefore, the incidence of depressive symptoms and major depressive disorders increases dramatically during adolescence [3]. In China, educational achievement and gender are the main risk factors

for depression among adolescents. Traditional Chinese society attaches great importance to education and achievement, which leads to higher risk of stress among adolescents. Studies have found that students in key classes with good academic performance have a lower risk of depression, while in rural areas, left-behind students have a higher risk of depression, and compared with urban students, rural students have less exercise habit. In addition, many domestic and foreign studies have shown that women have a higher risk of depression than men [4].

2.2. Clinical Features

Symptoms of depression can be broadly divided into affective, vegetative nervous system and cognitive symptoms [5]. A comparison of major depressive symptoms between adolescents and adults found that vegetative symptoms such as decreased energy, weight changes, changes in appetite and changes in sleep were more common in adolescents than in adults, as well as somatic symptoms, which are unexplained physical symptoms such as musculoskeletal pain or headache [6]. Among them, girls mainly showed higher depression and sleep problems, while boys mainly showed anxiety, psychomotor delay and attention deficit problems [7]. Adolescent depression is to bring the spirit of minors and psychological pain, sometimes more than the pain of the body disease, minor depression experiences could undermine its important development process, it is likely to be social and economic status in patients with and cause long-term adverse effects of human relationships, which affect their lives, so timely diagnosis and treatment of adolescent depression is particularly important [8].

3. Drug Treatment of Adolescent Depression

3.1. Modern Medical Treatment

Currently, clinically commonly used western medicine antidepressants can be divided into six categories: (1) monoamine oxidase inhibitors (MAOIs) (2) tricyclic antidepressants (TCA) (3) tetracyclic antidepressants (TCAs) (4) selective 5-HT reuptake inhibitors (SSRI) (5). Dual channel reuptake inhibitor (SNRI) (6) norepinephrine and specific 5-HT receptor antagonist (NAS-SA). Although there are various types of antidepressants, only 1/3 of the patients with first-line clinical symptoms can be significantly improved, and there is a long incubation period through drug interaction [9]. In addition, antidepressants have many obvious side effects. For example, SSRI is one of the most commonly prescribed antidepressants in adolescents. However, relevant studies have shown that SSRI may lead to adverse psychiatric events (including mania and irritability, etc.) in adolescents in addition to common side effects in adults [10]. And there is evidence that higher doses of SSRI are associated with a greater likelihood of dropping out of school due to side effects [11]. In addition, relevant clinical investigations have found that many patients with depression generally have symptoms such as drug shortage, self-reduction and drug withdrawal, leading to a series of drug withdrawal symptoms (including nausea, vomiting, ataxia, insomnia, dreaminess, etc.) [12].

3.2. Traditional Chinese Medicine Treatment

TCM treatment of depression can be divided into internal and external treatment, "decoction for internal treatment, acupuncture and moxibustion for external treatment". Acupuncture and traditional Chinese medicine have a bidirectional benign adjustment effect, so as to achieve the unique effect of thinning and not damaging positive, and the advantage is that the side effects are relatively small. Different doctors have their own characteristics in the treatment of depression syndrome differentiation, but mostly from the liver, spleen, heart, kidney, therefore, the current treatment of depression prescriptions mostly belong to the category of nourishing the liver and strengthening the spleen, communication heart and kidney, phlegm and kaiqiao [13]. Through clinical observation, Lin et al [14]. found that the final treatment results of 30

patients with depression of liver depression and spleen deficiency treated with Jieyu Xingpi Decoction were similar to those of the group treated with fluoxetine. Qu et al [15], used Compound Kaixin Powder in the experiment of chronic stress stress mice, and the results showed that compound Kaixin Powder could reduce the expression level of inflammatory factors in mouse microglial cell line (BV2) cells to achieve the anti-depression effect. Liu et al [16], believe that depression with spleen deficiency and mitochondrial energy metabolism disorder has a great correlation, the use of traditional Chinese medicine Jianpi Yiqi medicine on patients with depressive symptoms and mitochondrial damage has a significant improvement. All these show that Chinese medicine prescription can achieve the same therapeutic effect as western medicine after accurate dialectical treatment.

External treatment is mainly based on acupuncture and moxibustion, Ding et al [17], found that acupuncture can correct 5-HT_{1A} receptor dysfunction, so as to play an antidepressant effect; Zhang et al [18], By observing the effect of Tongyuan acupuncture combined with salt moxibustion on postpartum depression in rats, found that acupuncture can regulate HPA axis function to improve depressive symptoms; Chan et al [19]. META analysis also showed that the combination of acupuncture and antidepressants was more effective than antidepressants alone in the first six weeks of treatment; In addition, external treatment also includes auricular point pressing therapy, acupoint injection therapy, acupoint catgut embedding therapy, magnetic acupoint therapy and bloodletting therapy [20].

Although traditional Chinese medicine has many unique advantages and great potential in the treatment of depression, there is no quantitative standard in clinical syndrome differentiation of traditional Chinese medicine, coupled with the diversity and complexity of traditional Chinese medicine components, and the lack of objective curative effect evaluation criteria. Therefore, the mechanism and scientificity of traditional Chinese medicine in the treatment of depression need to be further explored in order to benefit more patients with depression at home and abroad.

4. Occupational Therapy for Depression

Occupational therapy is a rehabilitation treatment method for the treatment and training of physical and mental dysfunction of patients with purposeful and selected occupational activities [21]. Compared with drug therapy, occupational therapy has obvious advantages of no side effects. In recent years, it has gradually become an indispensable adjuvant therapy for combined drug therapy in clinic. Occupational therapy for depression is mainly divided into three types, namely cognitive behavioral therapy, occupational activity therapy and modified Morita therapy. Clinicians should choose according to the specific conditions of patients [22].

4.1. Cognitive Behavior Therapy

In addition to varying degrees of emotional disorders, depression patients will also lead to impairment of cognitive function [23]. Occupational therapy can correct patients' distorted thinking and help patients reshape their way of thinking and outlook on life. Cognitive behavioral therapy (CBT) is a treatment that eliminates patients' bad emotions, behaviors and cognition by correcting their thinking, beliefs and behaviors. Due to its own specificity, adolescent groups are more prone to distorted thinking in the process of growth, which leads to various psychological diseases. Therefore, it is particularly important for the correction of thinking and cognitive improvement of adolescent depression patients. The effectiveness of CBT in the treatment of depression, especially in acute depression, has been widely proved [24]. Yang et al [25], found through randomized controlled trials that CBT seemed to be more favorable for the treatment of depression patients aged ≤ 13 . The randomized controlled trials of Thorndom Idsoe et al [26], also proved that CBT can significantly reduce adolescent depressive symptoms in clinic. A 24 - week experiment by Graham J Emslie et al [27], also

proved the remarkable effectiveness of CBT in the treatment of adolescent drug-resistant depression (TORDIA).

CBT is considered to be a first-line treatment for anxiety and depression in adolescents with a strong evidence base and usually includes psychological education, cognitive restructuring, exposure and behavioral activation [28]. Among them, cognitive restructuring is the process in which clinicians help patients identify, evaluate and, if necessary, modify bad or other unhelpful thoughts; Cognitive behavioral therapists apply cognitive restructuring to thinking about specific situations, as well as negative underlying beliefs, that arise during periods of stress or adversity. Behavioral activation is a behavioral CBT strategy that helps patients actively re-engage in life by doing things that allow them to take care of themselves and contribute meaningfully to their family, workplace and society as a whole, thereby giving them a sense of accomplishment and happiness. Exposure therapy refers to exposing patients to their own scenes of fear in order to alleviate the pain and harm patients experience in specific situations [29].

Lorenzo Lorenzo-Luaces et al [30], believed that CBT is the most effective treatment so far, based on a solid but developing scientific model and method. However, there is no form of psychotherapy that can claim to be the best for all patients. Therefore, clinical therapists should formulate specific plans according to the specific conditions of patients and implement extensive strategic interventions.

In recent years, with the development of information, in addition to the traditional face-to-face CBT, researchers have begun to study the effectiveness of CBT provided by computers, the Internet and mobile phones, namely Internet-based cognitive behavioral therapy (I-CBT). The growth of the Internet has provided the first major opportunity to increase access to treatment and care, with I-CBT, patients can sit at home in front of a computer, read psycho-educational materials, and practice CBT exercises and worksheets. The field has increasingly shifted to smartphone-based treatments, with a focus on mobile apps. Erik Hedman et al [31], show that cognitive behavioral therapy provided by the Internet is effective for common mental disorders and is a useful adjunct to face-to-face therapy. A META analysis by Dina M Szein et al [32], also showed that I-CBT has a moderate role in reducing symptoms of mild to moderate depression. Compared with traditional CBT, I-CBT has two obvious advantages: enhancing patient capacity and improving clinical efficiency. On the one hand, I-CBT privacy and anonymity can help introverted or depressed patients more open and receive treatment. On the other hand, from the perspective of clinical efficiency, I-CBT provides substantial benefits, which allows clinicians to effectively treat more patients in less time. But compared with traditional CBT, I-CBT also has some disadvantages. The first is the lack of direct monitoring of patients. The second disadvantage is that patients' compliance is worse. The third disadvantage is about the accessibility of technology. The fourth disadvantage is the possibility of improper handling. I-CBT online diagnosis and treatment tools based on self-report may lead to misdiagnosis and improper treatment [33].

Although there are still some defects in the treatment of depression, the effectiveness of I-CBT in the treatment of depression has been widely confirmed. It is believed that with the progress of science and technology and the continuous exploration of researchers, the treatment mode of I-CBT will become more and more perfect.

4.2. Occupational Activity Therapy

Occupational activity therapy refers to a wide range of conscious movements in the East and the West, such as dance, yoga, Pilates, Taiji and Qigong, which are used to treat the mind, body and spirit. Scientific evidence supports the broad benefits of exercise therapy, including reducing pain, stress and weakness, and improving exercise range, strength, balance, coordination, cardiovascular health, physical fitness, emotion and cognition. There is strong

evidence that exercise plays a prominent role in maintaining and improving health and is an integral part of the prevention and treatment of many diseases [34]. A meta-analysis by Sabine C Koch et al [35], showed that dance exercise therapy (DMT) could reduce depression and anxiety, improve quality of life, interpersonal and cognitive skills, while dance intervention could increase (psychological) motor skills. A study by Young-Ja Jeong et al [36], also showed that DMT may help to regulate the concentrations of serotonin and dopamine, and improve the psychological distress of adolescents with mild depression. Sy Atezaz Saeed et al [37], have shown that yoga can be recommended as a single therapy for depression, but it is more likely to be used as an adjuvant therapy for depression and anxiety. Yoga once a week for 60 minutes can reduce depressive symptoms. Aurora James-Palmer et al [38], also showed that yoga can reduce adolescent anxiety and depression. Chen et al [39], studies have shown that Tai Chi can reduce the serum cortisol and pro-inflammatory cytokines IL-6, TNF- α levels of female college students with depression, increase the level of anti-inflammatory cytokines IL-10, has a positive effect on improving female college students' depressive symptoms, can be used as an effective means of psychological rehabilitation of college students. The study of Lou et al [40], showed that physical exercise had a medium effect on depression, among which Tai Chi and Qigong had the best effect. Compared with other types of depression, physical exercise had a better effect on severe depression (MDD).

The types and forms of exercise therapy are diverse. Although exercise therapy has been proved to be effective in the treatment of depression in adults and adolescents, the effectiveness and efficacy of activity therapy are also different due to the individual differences of depression patients and the differences of exercise types and exercise postures. Therefore, in clinical treatment, therapists should choose specific exercise types and formulate detailed treatment plans according to the patient's condition, interests and other specific conditions.

4.3. Modified Morita Therapy

Morita therapy is a psychotherapy method originated from oriental culture established by Professor Morita Kuma in 1920. After a hundred years of exploration and practice, the indications of Morita therapy have extended to many fields, including depression, and become one of the most important psychotherapy systems in the world [41]. Modified Morita therapy mainly includes three stages of relative bed rest period, working period and social return period and three forms of inpatient Morita therapy, outpatient Morita therapy and life discovery [42, 43]. An experimental data from Lamborgh [44] showed that Morita psychotherapy combined with low-dose olanzapine was effective in the treatment of MDD patients, which could significantly alleviate depressive symptoms and improve the quality of life of patients. Ding et al [45], pointed out that Morita therapy combined with paroxetine can effectively relieve depression and improve the quality of life of patients with depression. Zhang et al [46], combined traditional Chinese medicine preparations with psychotherapy through experiments to observe the therapeutic effect of patients, serum DOPAC level, BDNF, quality of life, and other effects. The results showed that Morita therapy combined with Lili and Anemarrhenae Decoction had better curative effect in the treatment of patients with first-episode depression, and the improvement of quality of life was more obvious.

Studies have shown that morita therapy, whether combined with Western or Chinese medicine, is significantly superior to drug therapy alone in the treatment of depression. However, morita therapy has been born for a hundred years, and today's society has undergone tremendous changes. Some forms of Morita therapy are no longer suitable for modern society. For example, the modern lifestyle is difficult to adapt to bed rest therapy [47]. Therefore, the essence of Morita therapy and the psychological characteristics of people in different countries can be combined to improve Morita therapy so as to make it more suitable for the psychological characteristics of people in different countries and better serve patients with depression.

5. Discussion

Occupational therapy has been shown to significantly improve symptoms and quality of life in adolescents with depression, whether used alone or in combination with medication. Although homework therapy treatment of depression in China's poor popularity, related research is less, but with the parents of adolescent depression of learning and understanding gradually increase and the strict control of the government for psychiatric drugs, demand for non-drug treatment will also be more intense, the unique advantages of homework therapy for adolescent depression will also be reflected. On the other hand, the treatment mode of occupational therapy for adolescent depression lacks relatively unified standards. It can refer to the mature occupational therapy in Europe and The United States and develop a treatment mode suitable for Chinese patients with depression combined with the characteristics of Chinese adolescents with depression, so as to better realize the localization of occupational therapy.

6. Disclosure

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