

A Review of Survey Research on Adolescent Depression

Shuwei Fu, Ziyang Luo, Yuanjie Hu, Wei Yang, Zechao Wei

School of xian, shiyou University, Xian 710000, China

ABSTRACT

In recent years, adolescent depression has become a significant public health issue globally, profoundly affecting the quality of life, academic performance, and social functioning of adolescents. According to the China National Mental Health Development Report (2019-2020) released by the Institute of Psychology, Chinese Academy of Sciences in 2021, the detection rate of depression among Chinese adolescents is 24.6%, with severe depression accounting for 7.4%. Against this backdrop, the author has decided to conduct a comprehensive analysis of adolescent depression. This review aims to summarize the current state of research on adolescent depression to assist future researchers in better understanding and addressing this issue, thereby reducing the rate of adolescent depression. The methodology involved literature searches using "adolescent depression" as the keyword on CNKI, yielding 449 articles. After categorization and exclusion, the author found that current research on adolescent depression includes its definition, epidemiological data, causes and risk factors, impacts, diagnostic methods, treatment and intervention measures, and prevention strategies. This paper focuses on discussing the influencing factors and the evolution of treatment methods for adolescent depression and concludes with preliminary suggestions for future research.

KEYWORDS

Adolescent Depression; Influencing Factors; Treatment Methods; Suggestions for Future Research

1. BRIEF DEFINITION

The term "depression" has a long history, dating back to ancient Greece. Depression, also known as depressive disorder, is a mental disorder characterized by high incidence, high clinical cure rates, but low treatment acceptance rates, and high recurrence rates. It is currently classified as a mental illness. "Adolescent depression" is a term named by age, referring to a type of depression that typically begins during the teenage years, between the ages of 13 and 18. Adolescent depression is commonly manifested by symptoms such as low mood, reduced interest, cognitive impairments, and behavioral changes, with varying incidence rates across different age groups and genders.

2. INFLUENCING FACTORS

Research on the influencing factors of adolescent depression, conducted with "adolescent depression" as the keyword on CNKI, reveals that pre-2000 literature often involved translations of foreign research findings. Current studies indicate that depression is primarily associated with genetics, personality, attribution, parental factors, stressful life events, social support, and peer relationships. These factors can be broadly categorized into predispositional, perpetuating, and precipitating factors. [1] Some recent studies have also proposed new research perspectives such as sleep and diet. The following outlines a few factors that have been widely researched and are considered highly credible.

2.1. Predispositional Factors

Multiple studies have indicated that for every one standard deviation increase in familial depression susceptibility, the probability of adolescents exhibiting severe depressive symptoms increases by 1.5 times. Some results show that the probability of depression occurring within a family is about 8 to 20 times higher than in the general population, with a higher incidence rate among closer blood relatives. Adolescents are more influenced by genetic factors than children. However, some studies mention that there is no linear correlation between the age of onset and the degree of heritability. [2] Nevertheless, it is still evident that genetics is an important influencing factor, although the specific relationship between genetic factors and the age of onset of adolescent depression requires further research.

Personality is another significant factor. Zhong Qiuyuan [3] and others, through comparative testing of 70 adolescent depression patients and 70 healthy adolescents, found that adolescents with depression exhibit personality traits of high neuroticism and high introversion. Zhang Li also pointed out that existing studies have shown that individuals with high dependency and self-critical personality types, as well as low self-confidence, are more prone to depression.

In terms of gender, early studies generally believed that before puberty, the incidence rate in males was higher than in females, but after puberty, the incidence rate in females was greater than in males. After long-term research, it has been observed that, overall, the incidence rate of depression is generally higher in females than in males; in China, multiple studies have found that the lifetime and point prevalence rates of depression in females are significantly higher than in males [4].

From the number of patients in different age groups, it is known that as age increases, so does the proportion of patients. Zhang Guoying, through experimental surveys, believes that the median age of onset is 13, and the possibility of depression increases with age. This is greatly related to the physiological changes in adolescents during puberty.

Research has also recently proposed the impact of early development. Studies have found that children and adolescents who speak and walk earlier than the average child have a greater risk of depression than the average child. This may be related to the higher self-expectations and sense of achievement that come with early development [5].

2.2. Perpetuating Factors

The impact of parental education methods within the family on adolescent depression is apparent. This view has been pointed out and studied abroad, with Glassner and others focusing on families with early-onset children, finding that 73% of these cases involved children who held a special status and were pampered during their childhood. Initially, the improper education by both parents was considered together, but later research indicated that the mother's influence is greater than the father's. Wu Yanru [6] and colleagues demonstrated through experiments that the most significant factors affecting depression are the mother's emotional warmth and understanding. Compared to mothers, fathers play a more significant role in helping children establish various rules and norms during their growth. Additionally, discordant marital relationships between parents are a significant factor contributing to depression, with girls being more affected than boys.

Multiple studies have shown that academic pressure and social interactions at school can be considered the three major factors that trigger depression in adolescents. Subsequent research also found that the risk factors differ between males and females. For males, disliking school, being away from family for long periods without reunion, family conflicts, and unmet expectations are more significant. For females, experiencing discrimination and coldness, and heavy study burdens are important risk factors. It is evident that male depression is more related to objective factors such as achievement stress in the family environment, while female depression stems more from subjective feelings, such as feeling the burden of studies and not being welcomed by others [10, 11].

Attributional style is also an important perpetuating factor. According to Abramson's hypothesis, certain characteristics of attributional style may lead to the development of depression. If individuals tend to attribute the causes of negative events to themselves, as being permanent and pervasive, and the causes of positive events to others, as being temporary and specific, they are more likely to exhibit depression, and vice versa. Jin Lin [7] and others proved through experiments that cognitive reappraisal and positive attribution styles are significantly positively correlated with life satisfaction and psychological quality, and significantly negatively correlated with depression.

Moreover, self-efficacy has a clear impact on individual mental health through intermediary processes such as thinking, choice, motivation, and psychosomatic responses. Low self-efficacy is one of the causes of mental health issues such as anxiety, depression, and despondency. [8] People with low self-efficacy are hesitant in the face of difficulties and helpless under pressure. This unhealthy psychological factor can lead to more negative impacts, such as continuously thinking about negative outcomes when facing stress and challenges in the future, or being immersed in negative emotions in daily life, leading to "rumination." Experiments have shown that higher levels of ruminative response styles in urban and rural adolescents in China are associated with the progressive worsening of depressive symptoms [9].

2.3. Precipitating Factors

Influenced by factors affecting adult depression, early research on adolescent depression focused on dependency items such as alcohol and tobacco. Substance dependence is a causative factor for secondary depression, and the incidence of depression among adolescents dependent on medication is three times that of their peers who are not on medication. [12] In the United States, the risk of depression among adolescents who smoke is twice as high as those who do not smoke. [13] There has been little research in our country on whether dependency items affect the occurrence of depression in adolescents, which is greatly related to the national prohibition on selling alcohol and tobacco to minors. However, in recent years, the phenomenon of minors smoking has been gradually increasing, and it may be worth considering research from this perspective.

Experiencing traumatic events during childhood is one of the distant high-risk factors leading to depressive symptoms in adolescents. Studies have found that among children who have experienced trauma during childhood, 25% to 30% exhibit depressive symptoms in early adulthood. Childhood trauma experiences can affect future attributional styles and self-efficacy, thereby increasing the likelihood of depression. Research also points out that not everyone who has experienced childhood trauma will suffer from depression; certain conditions are required to trigger it. Good social support and the ability to actively forget can help eliminate the negative impacts of childhood trauma [14-16].

3. EVOLUTION OF TREATMENT

Adolescent depression has a significant impact on an individual's academic performance, social relationships, and physical health, making early diagnosis and comprehensive treatment particularly crucial. This section delves into an in-depth study of treatment methods. A combination of cross-sectional and longitudinal methods is used to sort out the evolution of treatment methods and to summarize the existing treatment approaches.

Research on the evolution of treatment methods for adolescent depression, conducted with "adolescent depression" as the keyword on CNKI, reveals that based on existing research findings, the evolution of treatment methods for adolescent depression can be roughly divided into three stages: the early stage, the development stage, and the current stage. Below, the main directions of treatment for adolescent depression in each stage are outlined.

3.1. Early Stage: Monotherapy

The early stage, which relied on monotherapy, mainly occurred between 1980 and 2005. During this period, with the development and promotion of antidepressant drugs, pharmacological treatment gradually became the primary treatment method for adolescent depression. Studies have shown that an increase in the prescription of antidepressants correlates with a decrease in suicide rates among individuals with depression. Decreases in suicide rates in Europe, Scandinavia, the United States, and Australia have been linked to the prescription volume [17] of antidepressants. Pharmacological treatment has been proven to be one of the most effective methods during this stage. [18] Therefore, research during this stage primarily focused on exploring the application and effectiveness of traditional antidepressant drugs in the treatment of adolescent depression patients. As research on pharmacological treatment deepened, the drawbacks of monotherapy also became apparent. Following the advice of the Antimicrobial Drugs Advisory Committee's psychiatric drugs and pediatrics professional group, the FDA issued a warning that antidepressants may lead to suicide [19]. Studies have shown that drugs such as fluoxetine and paroxetine are associated with various adverse reactions in the clinical treatment of adolescent depression [20]. Researchers began to focus on how to balance the efficacy and safety of medications.

3.2. Development Stage: Introduction of Psychotherapy

The use of psychotherapeutic methods was primarily concentrated between 2005 and 2015. During this stage, with the advancement of research in psychology and psychiatry, the importance of psychotherapy in the treatment of adolescent depression began to be recognized. Studies suggested that in addition to pharmacological treatment, psychotherapeutic intervention is indispensable for the treatment of adolescent depression, both in the acute phase and the maintenance phase. Cognitive Behavioral Therapy (CBT) [21] and Interpersonal Psychotherapy (IPT) [22] were gradually introduced into the treatment of adolescent depression. Open-controlled studies showed that fluoxetine alone or in combination with psychotherapy had significant efficacy in treating depression, with significant relief of depressive symptoms, and the combination therapy was found to be more effective. The combination of medication and Cognitive Behavioral Therapy was more effective than medication alone, with longer-lasting effects and a lower relapse rate [23]. The integration of Traditional Chinese Medicine with psychotherapeutic interventions in the treatment of adolescent depression significantly improved efficacy, with fewer side effects, without affecting study, and with high patient compliance [24]. The combination of psychotherapy and pharmacological treatment not only addressed symptomatic treatment but also focused on stimulating the patients' inherent healing abilities. The application of psychotherapeutic multimodal integration therapy can stimulate the body's self-healing functions [25], providing a more comprehensive treatment plan for adolescent depression.

3.3. Current Stage: Formation of Integrated Treatment Models

The integrated treatment model has become the primary method for treating adolescent depression from 2015 to the present. During this stage, as research on the etiology, pathophysiology, and treatment methods of adolescent depression has deepened, the integrated treatment model has gradually formed. This model combines pharmacological treatment, psychotherapy, social support, and other therapeutic methods to create personalized treatment plans based on the specific conditions of the patient. Researchers believe that integrated treatment can more comprehensively consider the symptoms, etiology, and individual differences of patients, thereby improving treatment outcomes and patient compliance.

In addition to pharmacological and psychotherapeutic treatments, researchers during this period have begun to focus on the role of social support in the treatment of adolescent depression. Studies have shown that cognitive-behavioral therapy combined with family therapy for adolescent depression,

based on medication, has proven to be significantly effective when compared with post-treatment HAMD-17 and SCL-90 depression scale scores [26]. The "Emotion Venting Workshop" combined with family support psychotherapy has been effective in treating adolescent depression, improving sleep and quality of life, and enhancing coping abilities [27]. Group therapy increases patients' trust in other members, enhances social interaction skills, and alleviates negative emotions [28]. It is evident that family, school, and social environments significantly impact the prognosis of adolescent depression. Therefore, measures such as strengthening family communication, improving school environments, and providing social support can help adolescents better cope with depressive emotions and promote recovery.

Moreover, with the advancement of technology and research, some new treatment methods have been introduced into the treatment of adolescent depression. For example, art therapy and painting analysis have been proven to be objectively effective in the treatment of adolescent depression [29], repetitive low-frequency transcranial magnetic stimulation combined with cognitive-behavioral therapy has shown significant clinical effectiveness in the treatment of adolescent depression [30], mindfulness therapy combined with music therapy has positive significance in reducing negative emotions and adverse reactions in adolescent depression patients, as well as improving their behavioral status, and aquatic fitness exercises can effectively reduce depression scores in adolescent patients, increase peripheral blood 5-HT and BDNF levels, and their effects are slightly better than conventional drug and psychotherapy interventions. Researchers are exploring the effectiveness and safety of these new treatment methods, such as art therapy, exercise therapy, and new technology therapies, through clinical trials, aiming to provide a more diverse range of treatment options for adolescent depression patients.

It is important to note that the above stage divisions and main treatment methods are general descriptions based on the content of existing CNKI literature and are not strict historical periods. In fact, the study of treatment methods for adolescent depression is a continuous process, and there may be overlaps and intersections between the stages.

4. SUGGESTION FOR FUTURE RESEARCH

Based on the analysis above, it can be observed that significant progress has been made in current research on adolescent depression, particularly in the areas of impact analysis and treatment methods. Studies have revealed the complex roles of genetic, neurobiological, and psychosocial factors in the onset of depression and have advanced the development of psychotherapy and pharmacotherapy. These insights provide a reference for better addressing adolescent depression. However, there are still challenges in research related to adolescent depression, such as the lack of personalized treatment, assessment of long-term effects, and the actual effectiveness of prevention strategies. Future research needs to further explore these areas to enhance the effectiveness of interventions and treatments. After analysis and investigation, the author believes that future research should focus on the following aspects:

Firstly, delve into the neurobiological mechanisms of adolescent depression to uncover potential biomarkers. Secondly, strengthen the development of personalized treatment strategies, adjusting interventions based on specific symptoms and risk factors. Additionally, evaluate the actual effectiveness of existing prevention measures and explore new methods of prevention and intervention to better support the mental health of adolescents. Lastly, enhance interdisciplinary collaboration by integrating research findings from psychology, sociology, and biomedicine to provide comprehensive solutions.

5. SUMMARY

This review has conducted a comprehensive analysis of the current state of research on adolescent depression, revealing that our understanding of adolescent depression is gradually deepening and has achieved significant results. However, the current rate of depression among adolescents remains extremely high, affecting the development and progress of society to a certain extent. At the same time, there are still deficiencies in our current research on adolescent depression. In the future, we need to work harder and join hands to overcome the significant challenge of adolescent depression. This article aims to provide a general framework for future researchers to help them conduct their research more quickly and easily.

REFERENCES

- [1] Zhang Li. Characteristics and Research Status of Depression in Children and Adolescents. *Chinese Journal of Clinical Rehabilitation*. 2006, (No. 42), p.159-162.
- [2] Ma Jing, Su Linyan. Progress in Genetic Research on Depression in Children and Adolescents. *Chinese Journal of Clinical Psychology*. 2010, Vol. 18 (No. 04), p. 431-433.
- [3] Zhong Qiuyuan, Zhong Lanxiang, Hua Chunlan, et al. A Study on the Correlation between Personality Traits of Adolescent Patients with Depression and Parental Rearing Styles. *Practical Clinical Medicine*. 2010, Vol. 11 (No.10), p. 110-112.
- [4] Ma Yifan, Yang Ying. Research Progress on Influencing Factors of Adolescent Depression. *Psychological Monthly*. 2024, Vol. 19 (No. 08): p.222-224+228.
- [5] Thesis category: (Zhang Guoying: A Study on the Epidemiological Characteristics and Related Factors of Depressive Mood in Children and Adolescents (Master's degree, Sichuan University, China, 2006). p. 1-84.)
- [6] Wu Yanru, Xiao Zeping, Du Yasong, et al. A Study on the Relationship between First-Onset Adolescent Depression and Parental Rearing Styles and Self-Acceptance. *Shanghai Archives of Psychiatry*. 2006, (No. 06), p.324-326.
- [7] Jin Lin, Zhang Dajun, Zhu Zhengguang, et al. The Impact of Psychological Quality on Early Mental Health in Adolescents—The Mediating Role of Cognitive Reappraisal and Positive Attribution Style. *Journal of Southwest University (Natural Science Edition)*, 2021, Vol.43(No. 07), p.22-29.
- [8] Chen Xiuli, Feng Wei. A Preliminary Analysis of the Impact of Self-Efficacy on Mental Health. *Journal of Health Psychology*. 2003, (No.04), p. 270-271.
- [9] Thesis category: (Luo Yingzi: The Role and Neural Mechanism of Rumination in the Development of Adolescent Depression (Doctor degree, Central South University, China, 2009). p.1-114).
- [10] Tai Luming. On the Prevention and Correction of Adolescent Depression. *Journal of Zhangzhou Normal University (Philosophy and Social Sciences Edition)*. 2001, (No. 03), p. 107-110.
- [11] Xu Lxi, Lin Jie. Research Progress on Affective Disorders in Children and Adolescents. *Chinese Journal of Neurology and Psychiatry*, 1994, (No. 05), p. 297-300.
- [12] Wang Haibin. Depression in Adolescents with Substance Dependence. *Foreign Medical Sciences, Section of Psychiatry*. 2008, (NO. 03), p. 180-181.
- [13] Zhang Yade. Adolescent Smokers are More Likely to Suffer from Depression. *Foreign Medical Information*. 1996, (No. 14), p.17.
- [14] Tang Yu Yao, Yuan Jiaqi, Zeng Fanzhou, et al. The Relationship between Active Forgetting Ability, Childhood Trauma, and Depressive Symptoms in Adolescent Patients with Depression. *Chinese Mental Health Journal*. 2024, Vol.38(No. 06), p. 513-519.
- [15] Lu Jiahui, Fang Ping, Zhang Danxuan, et al. The Impact of Family, Interpersonal Relationships, and Childhood Trauma on Non-suicidal Self-injury Behavior in First-Onset Adolescent Depression. *Journal of Guangxi Medical University*. 2023, Vol. 40(No. 10), p. 1663-1669.
- [16] Thesis category: (Guo Wanhui: The Impact of Childhood Trauma on the Severity of Adolescent Depression: The Chain Mediating Role of Experiential Avoidance and Alexithymia (Master's degree, Jiangxi University of Traditional Chinese Medicine, China, 2023). p.1-56.)
- [17] Du Yasong, Tang Huiqin, Liu Yi, et al. An Open Study on the Treatment of Adolescent Depression with Mirtazapine. *Journal of Clinical Psychosomatic Diseases*. 2003, (No. 04), p.202-203.
- [18] FDA Issues Warning: Antidepressants May Lead to Suicide. *Drug Evaluation*. 2004, (No. 02), p.148.

- [19] Jiang Yanzhang, Xiong Fangwu. WHO Global Drug Adverse Reaction Information. *Journal of Drug Epidemiology*. 2004, (No. 03), p.169-170.
- [20] Su Qiaorong, Wang Xiuyun, Su Linyan, et al. Clinical Efficacy of Cognitive Behavioral Therapy for First-Onset Adolescent Depression Patients. *Chinese Journal of Behavioral Medicine Science*. 2006, (No.12), p. 1079-1080.
- [21] Wu Ying, Du Yasong. The Application of Interpersonal Psychotherapy in Adolescent Depression Patients. *Shanghai Archives of Psychiatry*. 2007, (No. 06), p. 366-368.
- [22] Li Cuiping. Observation on the Efficacy of Drug Combined with Cognitive Behavioral Therapy in the Treatment of Adolescent Depression. *Community Medical Journal*, 2013, Vol.11(No.04), p. 13-15.
- [23] Ai Xia, Zhang Shuzhen. Clinical Observation of 39 Cases of Adolescent Depression Treated with Integrated Traditional Chinese Medicine Therapy and Psychotherapy. *Hebei Journal of Traditional Chinese Medicine*. 2013, Vol.35(No.08), p.1133-1134+1186.
- [24] Zhang Xueling. Efficacy Observation of Multimodal Integration Therapy in the Treatment of Adolescent Depression in 30 Cases. *Chinese Journal of Integrated Traditional and Western Medicine in Pediatrics*. 2012, Vol.4(No.03), p.220-221.
- [25] Xu Huihui, He Jincai. A Study on the Treatment Effect of Cognitive Behavioral Therapy Combined with Family Therapy for Adolescent Depression. *Chinese Journal of Higher Medical Education*. 2018, (No. 06), p.131-132.
- [26] Lu Yazhen, Shi Juhong. The Application Effect of "Emotion Venting Workshop" Combined with Family Support Psychotherapy in Adolescent Depression. *Psychological Monthly*. 2024, Vol.19(No. 14), p. 141-143.
- [27] He Qianyun, Zhu Kun. A Brief Discussion on the Impact of Group Therapy on Inpatient Adolescent Depression. *Psychological Monthly*. 2021, Vol.16(No.04), p.220-221.
- [28] Xu Guijuan, Wei Yingdong, Chen Zhiyang, et al. Progress in the Application of Drawing Analysis and Therapy in Adolescent Depression. *Neurological and Mental Disease*. 2018, Vol.18(No.09), p.669-672.
- [29] Song Mengyi. A Study on the Clinical Efficacy of Repetitive Low-Frequency Transcranial Magnetic Stimulation Combined with Cognitive Behavioral Therapy in the Treatment of Adolescent Depression. *World Latest Medicine Information*. 2019, Vol.19(No. A1), p. 49+51.
- [30] Li Dongmei, Pan Di, Zhou Xiaomei. The Application Value of Music Therapy Combined with Mindfulness Therapy in Adolescent Depression Patients. *Integrated Traditional Chinese and Western Nursing (English and Chinese)*. 2022, Vol.8(No. 04), p.97-99.