

Influencing Factors and Intervention Strategies of Adolescent Depression

Chengcheng Zhu

Yangtze University, China

Abstract: Adolescence is a critical period of individual psychological and physiological development, and it is also a period of frequent depression. Depression has become one of the main diseases that threaten the healthy growth of adolescents. Adolescent depression not only affects the normal psychological development of adolescents, but also causes a series of behavioral problems, which is of great significance to the study of adolescent depression. Therefore, this paper will systematically sort out the relevant empirical studies affecting adolescent depression from three aspects: individual cognition, heredity and society, and further elaborate the curative effect of different intervention techniques on adolescent depression. In the future, targeted prevention and intervention models can be developed according to the development characteristics of domestic adolescents to promote the treatment of adolescent depression intervention.

Keywords: Teenagers; Depression; Depression Intervention.

1. Introduction

The Report on the Development of National Mental Health in China (2019-2020) shows that in 2020, the detection rate of depression among adolescents in China has reached 24.6%. Depression is one of the main emotional disorders in adolescence (Hankin, 2015). Adolescence or adolescence, in the past, generally refers to the period from the age of twelve to seventeen. Due to the prolonged education time of contemporary people, most researchers extend adolescence to twenty years old, and divide it into three stages: early adolescence (10-13 years old), middle adolescence (14-17 years old) and late adolescence (18-20 years old). Compared with childhood, the physiology and psychology of adolescence have changed greatly, and the risk of depression in this period has also increased greatly (Hankin et al., 2007). According to the survey, the incidence of this disease is only 2.8% in childhood, but it is as high as 5.6% among adolescents aged 13-18 (Jane et al., 2006). Adolescent depression will not only damage the individual's psychosocial adaptation function (Verboom et al., 2014), but its negative effects may also continue into adulthood, increasing the risk of severe depression (McLeod et al., 2016).

According to the previous literature, there have been a lot of studies to explore the influencing factors of adolescent depression. This paper will summarize the influencing factors and intervention strategies of adolescent depression from multiple perspectives. In the past, most of the traditional intervention techniques for adolescent depression were cognitive behavioral therapy, and the use of new intervention methods was still rare. The emergence of new psychotherapy for depression provided a new perspective for the treatment of depression. In the future, the combination of traditional therapy and new therapy will be the development direction in the field of psychotherapy for depression.

2. Influencing Factors of Adolescent Depression

The influencing factors of adolescent depression include individual physiological, psychological and social factors.

Depression can be defined from the aspects of emotion, cognition, behavior, physical symptoms and related dysfunction. Therefore, the risk of adolescent depression can be understood from three angles: emotion, cognition and behavior. Emotionally, it is characterized by depression or unhappiness, persistent depression, irritability, decreased interest in activities, etc. Cognitive performance is pessimistic, meaningless and low sense of self-worth. Behaviour is characterized by withdrawal or irritability, and even suicidal ideation or self-mutilation (Chen Lijuan, 2021). Previous studies have shown that depression is influenced by genetic factors, but it cannot fully explain the occurrence of the disease (Powell J et al., 2012). Individual factors of adolescent depression include personality, gender and unhealthy lifestyle. Studies have shown that adolescents with obvious characteristics such as anxiety and impulsiveness are prone to depression. Extroverted individuals are more optimistic, cheerful and confident, and prefer to communicate with others, while introverted individuals are more timid, lack of self-confidence, care too much about what others think of them, and will repeatedly blame them when they make mistakes, which will easily aggravate their depression (Jia Ming et al., 2012). Women are more prone to depression than men (Zheng Lifeng et al., 2012), which may be related to the physiological, psychological, emotional and cognitive status of adolescent women. Unhealthy lifestyles, such as smoking, alcoholism, internet addiction, staying up late, etc., will all promote the occurrence and development of negative emotions such as depression and anxiety among adolescents (Li Juanjuan et al., 2021). Secondly, the onset of adolescent depression patients is closely related to the family environment, and unhealthy family environment is likely to lead to the emergence of adolescent depression and suicidal ideas (Liu Yimeng et al., 2020).

In addition, poor academic performance, great study pressure, negative life events, poor social relations and childhood trauma are all risk factors leading to adolescent depression. However, these factors have not been paid attention to by parents and schools. Many parents think that emotional fluctuation is a natural phenomenon at this age, which easily leads to neglect and missed diagnosis of

depression. The influencing factors of adolescent depression are complicated. At present, the risk factors of adolescent depression have not been clearly unified, and there is still little objective data support. Among the above influencing factors, how each factor affects depression still needs further confirmation. Therefore, this paper will systematically sort out the empirical studies that affect adolescent depression from the perspectives of individual cognition, heredity and society, further elaborate the clinical efficacy of different intervention techniques on adolescent depression, and finally discuss and prospect the areas to be improved and development trends in the field of adolescent depression.

2.1. Cognitive Factors

For the explanation of depression, the famous Beck depression model and hopeless depression theory believe that depressed patients have a negative cognitive triangle on the cognitive level. In recent years, Hankin and Abramson put forward an integrated model, which holds that cognitive susceptibility to depression can not only interact with initial negative emotions, but also the occurrence of negative events will trigger negative emotions, thus promoting the emergence of depression. Cognitive susceptibility is an integrated concept, which mainly includes dysfunction, negative cognitive schema, negative attribution and inference, low self-esteem, self-cognitive bias and so on (Hankin, 2010). Due to the influence of individual physiology and other factors, such as environment, family and society, there is no research to accurately confirm the time point when cognitive susceptibility to depression is stable. Looking back on the traditional theory of depression, the focus is on individual negative cognitive bias. Positive psychology does not deny the existence of negative factors in adolescent depression, but thinks that it is the lack of some positive cognitive bias.

2.2. Genetic Factors

A large number of studies have shown that adolescent depression is highly similar to that of parents (Cao Yanmiao et al., 2016). In the field of genetic research, twin and molecular genetics studies have confirmed the influence of genetic factors on adolescent depression. Previous studies have found that human depression has a complex genetic basis. However, by analyzing the relationship between genotypes and depressive symptoms, no research has found a clear gene locus related to adolescent depression. At present, only a variety of candidate genes related to adolescent depression have been located, and no one has been confirmed to have a clear relationship with depression. In recent years, with the research on a variety of candidate genes, it is found that they have complex relationships: multiple genes not only directly affect depression, but also affect depression through interaction with the environment (Cao Yanmiao et al., 2013). Some research results show that depression is closely related to genetic factors, and the family history of mental illness of two families and three generations is an independent risk factor for adolescent depression, and the incidence of adolescent depression with family history is significantly higher than that of ordinary people. Liu Xiaohua and others found that 43.0% of patients with depressive disorder had a family history of mental illness. In addition, there are gender differences in the influence of genetic factors on depression. Studies have shown that girls are more susceptible to genetic influences than boys, but relevant studies are still being confirmed (Cui Lixia et al., 2014). It can be seen that it is the

main trend to study the genetic mechanism of multiple genes and how multiple genes and various environmental factors affect depression. Therefore, parents and schools should attach great importance to teenagers with a family history of mental illness, and timely evaluate and intervene their mental health.

2.3. Social Factors

Among the social factors that lead to adolescent depression, social support is considered to be an important cause of adolescent depression (Song Jiameng, Fan Huiyong, 2013). Social support includes visible practical support and emotional support experienced. The stress-buffering model of depression holds that high social support can help adolescents to relieve stress and thus reduce depression (Zhong Xin, Liu Juhong, Chen Xu, 2014). Previous studies have shown (Liao Huiyun et al., 2016) that interpersonal relationship is an important factor affecting adolescent depression and plays a very important role in the growth and development of adolescents. The stress buffer model holds that friendship can provide emotional support for individuals and alleviate the influence of negative experiences (Rueger S Y et al., 2016). This can be explained by the trajectory of peer roles in the development of adolescence. Research shows that the relationship between peer support and depression is the strongest in early adolescence, so we should pay more attention to the peer relationship of teenagers. For teenagers, the relationship between themselves and their classmates or friends is the most important interpersonal relationship in life. They hope that they can be recognized by their classmates or friends, thus enhancing their sense of self-worth. When teenagers encounter problems, the help and comfort from classmates and friends is sometimes more effective than the support from family and teachers. When the number of close friends is small, teenagers can't talk to their friends and ask for help in time when they encounter difficulties, which will lead to the aggravation of negative emotions. Therefore, it is necessary to learn to get along with classmates or friends. Schools should guide teenagers to establish friendship with others, guide teenagers to actively seek help from their peers when they encounter problems, and improve their ability to use social support. In adolescence, peers gradually replace parents as the main source of emotional support for teenagers. Studies have shown that good friendship is conducive to adolescents' positive adaptation to life. On the contrary, peer bullying will induce adolescents' depression (Li Yajun, 2016). In other words, helping them cultivate a good circle of friends in adolescence is beneficial to their physical and mental development.

However, teenagers will not only encounter peer bullying in real life, but also cyber bullying will happen to teenagers. Studies have shown that cyberbullying is not only closely related to depression, but also the fuse of adolescent suicide (Sun Xiaojun, Lian Shuailei, Niu Gengfeng, 2016). The longer you use social networks, the higher the incidence of depression among adolescents (Zhang Linni, Cai Dan, Zhao Jialin, 2018). Therefore, parents should help their children to maintain a good network atmosphere in adolescence, and rational use of the network can reduce the incidence of adolescent depression to some extent.

3. Intervention Strategies for Adolescent Depression

3.1. Penn Psychological Resilience Intervention

PRP is widely recognized as a preventive intervention program for adolescent depression. PRP is a campus intervention program based on positive psychology to improve students' psychological resilience. Seligman and Gillham have done a lot of research by using PRP, and their research focuses on positive psychology and advocates optimism (Tracy, R. G. , & Willia, 2009). Over the years, PRP has been skillfully applied to general and targeted preventive interventions for adolescents in different ethnic and cultural backgrounds (Gillham, et al. , 2008). These studies found that compared with the control group, the development trend of depressive symptoms in PRP group slowed down. Further evidence shows that PRP not only helps to improve the cognitive model of participants, but also helps to reduce the behavioral problems of participants (Jaycox, L., et al., 1994). A recent study examined the effect of PRP in preventing depression from a clinical perspective (Gillham, et al., 2006). 271 children from two HMO (Health Maintenance Organization) were randomly divided into PRP group and UC(usual care) group. From the collected data, it can be found that after the intervention, although the number of subjects diagnosed as depression did not decrease, the interpretation methods of subjects in PRP group improved, and the depressive symptoms of girls decreased; Further follow-up data showed that children with high frequency symptoms in PRP group were less diagnosed with depression than those in control group (PRP group: 21%, control group: 36%, $P < 0.01$). PRP has been proved to be effective in reducing the risk of depression. In addition, the research shows that the implementation of PRP plan by the members of the research team will have better results; From the clinical effect, the intervention effect on high-risk adolescents with depression is more significant (Gillham, et al., 2009).

3.2. Cognitive Behavioral Therapy

Cognitive Behaviour Therapy (CBT) is a recognized and effective method to treat depression. CBT is a psychotherapy method which is combined with cognitive theory and behavioral therapy technology. It focuses on two key aspects: correcting cognition and changing behavior. Because traditional cognitive therapy has some shortcomings in the treatment of adolescent depression, cognitive behavioral therapy is often combined with drug therapy and other psychotherapy to improve the curative effect of depressed patients (Yang Hongliang et al., 2018). Different from other therapies, mindfulness decompression is not to eliminate depression, but a decompression training therapy, which includes three techniques: examination, meditation and yoga (Wang Liping, Wang Huiping, 2019). In the field of psychology, Kabat-Zinn's definition of mindfulness is widely accepted. He thinks that mindfulness is a state of awakening one's inner feelings and not making subjective evaluation of the current state. One of its remarkable effects is to improve the individual's emotional state (Peng Yibo, 2017). Mindfulness decompression training is becoming a new trend in the field of psychotherapy because it can reduce the burden on patients, families and society, and it can produce good results through short-term training. Looking back on the traditional theory of depression, the focus of adolescent

depression is only on the negative cognitive bias of adolescents. Positive psychologists do not deny the existence of negative factors in adolescent depression, but believe that there is a lack of some positive cognitive bias (Zhu Zhengren, Hu Zhu, Luo Ailing, etc., 2016).

3.3. ABC Rational Emotional Therapy

ABC Rational Emotional Therapy (RET) is a psychological counseling theory and method founded by American clinical psychologist Alice in 1950s. The key of ABC rational emotional therapy is to emphasize the important role of personal beliefs. It is believed that the negative emotional response of an individual is not directly caused by the induced event A, but by the evaluation and explanation of the situation by the individual irrational belief B. It is worth noting that belief B is an automatic thinking, subconscious and automatic process of the unconscious brain, which is produced by past experience in an unconscious state (Peng Cuizhuo, 2015). Therefore, in order to improve personal emotional state, it is necessary to improve personal belief, which has been widely used in the treatment of clinical anxiety and depression.

3.4. G4H Intervention Measures

The fourth group health (G4H) is a newly developed intervention measure, which aims at developing and maintaining social group members to cope with mental health problems. Social isolation and disconnection have a far-reaching negative impact on mental health, but there are almost no theoretical-derived interventions to directly address this problem. The fourth group of health (G4H) is a manual psychological intervention with five modules, which can treat depression, anxiety and other psychological problems caused by social isolation by developing and maintaining social group relations. At present, this new intervention has been verified by randomized controlled trials with cognitive behavioral therapy and conventional therapy (Haslam et al., 2019).

3.5. Exercise Intervention

Exercise intervention in depressive symptoms has the characteristics of small side effects, low cost, good patient compliance and long lasting effect, and it is the recommended therapy in many treatment guidelines. The mechanism of exercise intervention on depressive symptoms is very complicated. Exercise can promote the release of dopamine (DA), norepinephrine (NE) and 5-hydroxytryptophan (5-HT) and reduce the levels of IL-1 β , TNF- α , IL-6, IL-8 and IL-10 by regulating the expression of fat factor, nerve growth factor and muscle cytokine (Hong YP, 2015). Suppressing the apoptosis of hippocampal neurons by starvation, promoting the proliferation of hippocampal cells and mediating the expression of MicroRNA can improve the symptoms of depression (Baek, et al., 2012). In addition, exercise can also positively strengthen the general behavior activation effect, which can improve the sense of acquisition and accomplishment, and at the same time provide more social opportunities, distract patients from negative emotions and moods, and relieve depressive symptoms .

4. Conclusion

To sum up, this paper first explores the factors affecting adolescent depression from multiple angles, and then summarizes and compares the intervention techniques for

adolescent depression with the influencing factors, but the research on adolescent depression still needs further exploration in many aspects. First of all, this paper lists some factors that affect adolescent depression. However, the occurrence of adolescent depression is not caused by a single factor, but the result of the comprehensive action of many factors. Therefore, future research should consider analyzing adolescent depression from multiple perspectives, so as to enrich the empirical research of intervention technology in adolescent depression. In addition, in the aspect of influencing factors of adolescent depression, the influence of gender differences on adolescent depression is still controversial at present. In the future, more relevant factors can be added to provide more theoretical basis for solving adolescent depression. Secondly, through literature review, it is found that there are many new intervention strategies for depression at present, and it is clearly put forward that they can regulate depression, which can be one of the directions of future research. The appearance of new psychotherapy is not a denial of traditional therapy, but makes up for the limitations of traditional therapy to a certain extent. In the past, most studies only investigated the effect of new psychological intervention, and rarely added traditional therapy to compare the effects. It is necessary to add a more rigorous control group design in the follow-up research. In addition, the new intervention is mostly operated and confirmed in the western cultural background, and the research on new psychological intervention in China is still relatively few. In the future, we should strengthen the localization research while quoting western technology, and develop targeted prevention and intervention models according to the development characteristics of Chinese teenagers.

References

- [1] Hankin, & Benjamin, L. . (2015). Depression from childhood through adolescence: risk mechanisms across multiple systems and levels of analysis. *Current Opinion in Psychology*, 4, 13-20.
- [2] Michela, B. , Leonardo, C. , Rita, S. M. , Karla, K. M. , Aristide, S. , & Fang, Y. . (2015). The mediating role of early maladaptive schemas in the relation between co-rumination and depression in young adults. *Plos One*, 10(10), e0140177.
- [3] Caskell, G., & Smith, P. (1984). Relative deprivation in black and white youth: An empirical investigation. *British Journal of Social Psychology*, 23, 121–131.
- [4] Rueger S Y, Malecki C K, Pyun Y, Aycock C, Coyle S. A meta-analytic review of the association between perceived social support and depression in childhood and adolescence[J]. *Psychol Bull*, 2016, 142(10):1017-1067.
- [5] Crosby, F. (1976). A model of egoistical relative deprivation. *Psychological review* , 83 (2), 85.
- [6] Gladstone, T. , & Beardslee, W. R. . (2009). The prevention of depression in children and adolescents: a review. *Canadian Journal of Psychiatry*, 54(4), 188-208.
- [7] Tracy, R.G., & William, R.B. The Prevention of Depression in Children and Adolescents: A Review[J]. *The Canadian Journal of Psychiatry*, 2009, 54(4): 212—221.
- [8] Euteneuer, F. (2014). Subjective social status and health. *Current Opinion in Psychiatry*, 27(5), 337-343.
- [9] Jetten, J., Haslam, S. A., Cruwys, T., Greenaway, K. H., Haslam, C., & Steffens, N. K. (2017). Advancing the social identity approach to health and well-being: Progressing the social cure research agenda. *European Journal of Social Psychology*, 47(7), 789-802.
- [10] Leach, C. W., Van Zomeren, M., Zebel, S., Vliek, M. L. W., Pennekamp, S. F., Doosje, B., Ouwerkerk, J. W., & Spears, R. (2008). Group-level self-definition and self-Investment: A hierarchical (multicomponent) model of in-Group identification. *Journal of Personality and Social Psychology*, 95(1), 144-165.
- [11] McDonald, A., Thompson, A. J., Perzow, S. E. D., Joos, C., & Wadsworth, M. E. (2020). The protective roles of ethnic identity, social support, and coping on depression in low-income parents: A test of the adaptation to poverty-related stress model. *Journal of Consulting and Clinical Psychology*, 88(6), 504-515.
- [12] McIntyre, J. C., Wickham, S., Barr, B., & Bentall, R. P. (2018). Social identity and psychosis: Associations and psychological mechanisms. *Schizophrenia Bulletin*, 44(3), 681-690.
- [13] McLaughlin, K. A., Costello, E. J., Leblanc, W., Sampson, N. A., & Kessler, R. C. (2012). Socioeconomic status and adolescent mental disorders. *American Journal of Public Health*, 102(9), 1742-1750.
- [14] Moore, D. (2003). Perceptions of sense of control, relative deprivation, and expectations of young Jews and Palestinians in Israel. *The Journal of Social Psychology*, 143(4), 521–540.
- [15] Casale, M., Boyes, M., Pantelic, M. , Toska, E., & Cluver, L.(2018) .Suicidal thoughts and behaviour among South African adolescents living with HIV: Can social support buffer the impact of stigma?.*Journal of Affective Disorders*, 245,82 - 90.
- [16] Devenish, B., Hooley, M., & Mellor, D. (2017) . The pathways between socioeconomic status and adolescent outcomes: A systematic review.*American Journal of Community Psychology*, 59 (1 -2) , 219-238.
- [17] Haslam, C. , Cruwys, T. , Chang, X. L. , Bentley, S. V. , & Jetten, J. . (2019). Groups 4 health reduces loneliness and social anxiety in adults with psychological distress: findings from a randomized controlled trial. *Journal of Consulting and Clinical Psychology*, 87(9), 787-801.
- [18] Hong YP, Lee HC, Kim HT. Treadmill exercise after social isolation increases the levels of NGF, BDNF, and synapsin I to induce survival of neurons in the hippocampus, and improves depression-like behavior[J]. *J Exerc Nutrition Biochem*, 2015(1) : 11 ~ 18.
- [19] Smith, H. J., Pettigrew, T. F., Pippin, G. M., & Bialosiewicz, S. (2012). Relative deprivation: A theoretical and meta-analytic review. *Personality and social psychology review* , 16 (3), 203-232.
- [20] Smith, H. J. , & Pettigrew, T. F. . (2014). The subjective interpretation of inequality: a model of the relative deprivation experience. *Social and Personality Psychology Compass*, 8(12), 755-765.
- [21] Nieuwenhuis, J. , Van Ham, M. , Yu, R. , Branje, S. , Meeus, W. , & Hooimeijer, P. . (2017). Being poorer than the rest of the neighborhood: relative deprivation and problem behavior of youth. *Journal of Youth and Adolescence*.
- [22] Jetten, J., Haslam, C., von Hippel, C., Bentley, S. V., Cruwys, T., Steffens, N. K., & Haslam, S. A. (2022). “Let’s get physical”-or social: The role of physical activity versus social group memberships in predicting depression and anxiety over time. *Journal of affective disorders*, 306, 55-61.