

Analysis of the moderating effect of family environment on adolescent depression

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Abstract: *The prevalence of depression among adolescents is increasing year by year, which has caused widespread concern. Studies have shown that the family environment has an important influence on the occurrence of depression in adolescents. Adolescent depression is closely related to family. Family is an important environment for adolescents to grow up, and the stability and harmony of the family is crucial to adolescents' mental health. Therefore, it is necessary to pay attention to the influence of family factors on adolescent mental health and take effective measures to improve the family environment to help adolescents grow up healthily. In this paper, we will explore the relationship between adolescent depression and family relationships, analyze the impact of family factors on adolescent mental health, and propose corresponding solutions.*

Keywords: *family environment; adolescent depression; regulation*

1. Introduction

Depression is one of the most common mental disorders, characterized by significant and persistent depressed mood, affecting the quality of life and social functioning of individuals, and in severe cases, even self-injurious and suicidal behaviors". Depression has caused a serious disease burden, with an estimated 300 million people affected worldwide, and adolescents are one of the most prevalent groups. Adolescents are at a critical stage of physical and mental development and are vulnerable to external influences that can lead to psychological problems. The family is one of the most important social environments for adolescents in their growth process. The stability and harmony of the family is crucial to the mental health of adolescents. However, there are various problems in some families, such as conflicts among family members, poor communication, excessive parental expectations, and domestic violence. These problems may have a negative impact on adolescents and increase their risk of depression. Family environment plays an important role in adolescents' emotional regulation and psychological growth. Emotional stability and support from parents is crucial for adolescents' emotional well-being. If there is a lack of emotional communication and support from family members, adolescents may feel lonely and helpless, which increases the likelihood of depression. In addition, family education can affect adolescents' mental health. Excessive severity or coddling may lead to psychological problems in adolescents, including depression. Therefore research on the regulation of adolescent depression by the family environment is urgent.

2. Overview of the family environment

2.1. Definition of family environment

Family is the most direct environment for individual's activities and interactions, and it is the proximal environment that the individual directly touches and experiences in his/her growth. At the same time, the family is also the most important micro-system of child development, which has a vital influence on the physical and mental development of adolescents. The family environment in which children grow up can be divided into two main categories: one reflects physical or material characteristics, such as home facilities, noise, crowding, people traveling to and from the home, and the orderliness of family life, and the other reflects characteristics, such as family income, family surroundings, parenting styles, the quality of parental marriages, and parent-child relationships. Thus, the family environment can be categorized into the family physical environment and the family psychological environment. Family physical environment is often measured by the indicator of family

disorder, which mainly includes noise, crowding and organization. The definition of family psychological environment has not yet formed a more consistent opinion in domestic and international academic circles. However, different scholars have emphasized that family psychological environment is the psychological feelings of family members about interpersonal relationships within the family, and is mainly expressed through the quality of parental marriage, parent-child relationship, and parenting stress. Negative emotions and behaviors in the parental relationship may “spill over” into the parent-child relationship, resulting in impaired emotional and cognitive functioning of the child. For example, increased marital conflict may increase parenting stress and negative parenting behaviors, leading to increased internalizing and externalizing problems in children and adolescents, and low quality communication between parents and children, leading to increased emotional problems in children and adolescents. In other words, the husband-wife relationship and parent-child relationship in the family can affect the emotional development of adolescents.

2.2. Expressions of family environment

The specific manifestations of family environment include family structure, family relationship, family atmosphere, family education style and other aspects. Family environment has an important influence on the development of individual mental health, especially in adolescence, the role of family environment is more significant.

Family structure: Family structure includes the composition of family members, family size and so on. The stability of family structure has a positive impact on adolescents' mental health, while changes in family structure (e.g., single-parent families, reorganized families) may have a negative impact on adolescents; family relationships: family relationships mainly include parental relationships, parent-child relationships, etc. Good family relationships help adolescents form positive mental health. Good family relationships help adolescents form positive interpersonal skills, while tense family relationships may lead to increased psychological stress; family atmosphere: family atmosphere refers to the emotional atmosphere of family life, such as warmth, harmony, and depression. A warm and harmonious family atmosphere is conducive to adolescents' mental health, while a depressing family atmosphere may lead to adolescents' psychological problems; family education style: family education style includes parents' parenting attitude and education concepts, etc. Scientific and reasonable family education style can help adolescents' mental health. Scientific and reasonable family education helps adolescents form a sound personality, while overly strict or permissive family education may lead to adolescent psychological problems.

3. The current situation and characteristics of adolescent depression

3.1. Current situation of adolescent depression

Adolescents are in a critical period of growth and development, social and emotional development, and changes in physiological, psychological and social environments can easily lead to the occurrence of mental disorders in adolescents, and the increasing social pressure and competition also increase the risk of mental disorders. Depressive disorders are one of the most common affective disorders in adolescence and a leading contributor to disability. Depressive disorders are at the top of the list of reasons for the increase in the absolute number of disability-adjusted life years (DALYs) for adolescents aged 10-24 years from 1990-2019. It was found that more than 40% of patients with depressive disorders had their first onset of symptoms during adolescence, with 15-19 years of age being the highest age group for the first onset of symptoms. Over the past 20 years, the incidence of depressive disorders among Chinese adolescents has risen rapidly, from 18.6% in 2000 to 24.6% in 2020, and the incidence tends to be at a younger age, making it one of the major psychological problems among adolescents in China. However, the window period of the onset of adolescent depression is highly coincident with the period of growth and development, and the characteristics of adolescents themselves lead to their clinical manifestations being more hidden and slow compared with adult depression, and various factors and potential development mechanisms are also more complex, and the academic malpractice and social function impairment caused by the disease are prominent, such as truancy, suspension from school and cocoon formation. Smoking, drinking and drug use are also common and, more seriously, crime, suicide and non-suicidal self-harm are common.

3.2. Characteristics of adolescent depression

Adolescent depression is characterized by the following features: (1) The age-specific features of adolescent depression are mainly characterized by the unique role played by adolescence in the emergence, maintenance and development of depression. Adolescence is a critical period for the onset and development of depression. From childhood to mid-adolescence, the self-assessed level of depression increases significantly. The physiological, psychological, and social changes and challenges associated with adolescence, such as hormonal changes during puberty, increased adverse life events (academic stress, relationship challenges, parent-child conflict, etc.), and their interactions with physiological changes, have been found to be important influences on the significant increase in the prevalence of depressive symptoms as well as major depressive disorders during adolescence. From 8 to 14 years of age, the prevalence of individual depression is relatively low and remains around 3%-5%, and from 14 to 17 years of age, the prevalence of individual depression increases dramatically, from 5% to 20%. The results of the meta-analysis of the prevalence of depressive symptoms among Chinese adolescents showed that the trend of depressive symptoms among Chinese adolescents increased significantly with the increase of grade level, from 24.5% in the first grade to 40.1% in the first grade, and that the level of depression among children and adolescents had a tendency to develop and change according to age and grade level, while puberty played a unique and important role in adolescent depression. (2) The gender of adolescent depression is female-dominated. Gender differences in depression begin in adolescence and continue into adulthood. It was found that there was no significant gender difference in depression in children, and by the middle of puberty (13-15 years old), the rate of depression in female adolescents was significantly higher than that of male adolescents. The gender difference characteristic of depression began in puberty and continued into adulthood, and in adulthood, the gender difference in depression remained around 1:2, and females were more likely to be depressed than males. The specific time of the emergence of the gender characteristics of adolescent depression has not been standardized, but it is mainly concentrated in the age stage in which the middle of adolescence occurs. (3) Adolescent depression is easily overlooked. For adolescents, irritability is a typical manifestation of depressive symptoms. Because of the differences in the presentation of depression in adolescents, as well as the physical, psychological, and social challenges associated with puberty, adolescent depression can easily be understood as part of the normal mood swings of adolescence and overlooked. Therefore, adolescent depression is difficult to recognize and assess. In addition, adolescent depression is characterized by immediate and delayed outcomes, i.e., depression during adolescence not only impairs an individual's adaptive functioning, but also adolescent depression is a risk factor for depression in adulthood, increasing an individual's emotional vulnerability in adulthood^[1].

4. The influence of family environment on adolescent depression

4.1. Family material environment

Family material environment mainly refers to family material living conditions, including family economic level, social status, living conditions, etc., which are closely related to adolescent depression. Higher family economic level can reduce the incidence of adolescent depression to a certain extent, while the lower the family economic level the higher the incidence of adolescent depression". Family social status affects the mental health of adolescents and is negatively associated with the prevalence of depression, suicidal idea and suicide attempts". This may be due to the fact that good family economic conditions and higher social status can provide more support and help to adolescents; at the same time, economic pressure can increase parents' emotional or behavioral problems, and to a certain extent, affect parenting styles, which may increase the risk of depression in their children. In addition, a stable residential environment is crucial to the mental health and future development of adolescents.4 Fowler. showed that the irregularity of residence during adolescence predicted that they might have a higher risk of developing depression in adulthood and be more prone to problematic behaviors such as smoking and delinquency.

4.2. Parental education

Parental education is a manifestation of the family's cultural capital, which has an impact on adolescents' mental health. Low parental education may increase the risk of adolescent depression". The reason may be that parents with high education level have good knowledge background, and they

can find out the problems of their children in the process of growing up and communicate with them effectively, which can help to solve the problems in time; in addition, parents with higher education level are more likely to be engaged in high-income jobs, and thus they may have a higher social status, and the level of parental education affects the material environment of the family, which then affects the occurrence of depression among adolescents. Parental education has an impact on the physical environment of the home, which in turn affects the development of depression in adolescents.” Higher parental education is a protective factor for suicidal idea and behavior in depressed adolescents”^[2].

4.3. Family structure

Family structure refers to the composition of the members of a family, the state of their interaction and mutual influence, and the relatively stable pattern of ties formed by this state. The family structure of adolescents mainly includes nuclear family and special family”. The nuclear family refers to a family consisting of a couple and unmarried children; special families include single-parent families and reorganized families.” Numerous studies have shown that the type of family structure is associated with the occurrence of depression in adolescents”. Compared with adolescents from nuclear families, adolescents from single-parent and restructured families are more likely to have psychiatric problems, including depression and self-injury-suicide, etc. Lema-Gómez et al. showed that adolescents from nuclear families had a lower prevalence of depression and less severe depression than adolescents from non-nuclear families. This may be due to the differences in adolescents' family interaction patterns across family structures: adolescents in nuclear families benefit mainly from interactions with their parents, whereas adolescents in non-nuclear families benefit mainly from interactions with siblings or other members of the extended family through compensatory patterns of family interactions. In addition, adolescents from nuclear families have a stronger sense of belonging, higher levels of well-being, and a lower risk of depression. About half of adolescents with depression also had behavioral problems, and those from single-parent families were at higher risk for substance use, such as alcohol, cigarettes, and drugs, than adolescents with depression from nuclear families. The death of one or both parents is a special form of family structure, and bereavement may lead to an increased risk of depression in adolescents 4. Parents in specialized family structures should maintain good parent-child relationships with their children and adopt positive parenting styles as much as possible in order to minimize the increased risk of depression in adolescents that may exist in specialized family structures^[3].

4.4. Family relations

Family relations refer to the specific relationships inherent in family members that are manifested in the different ways in which different family members interact with each other, and are the ties that bind family members together. It is characterized by marriage and blood relationship as the main body, and consists of people living together who are related by marriage and blood relationship, and the family relationship of the adolescent group mainly consists of parental relationship and parent-child relationship.

A cross-sectional study of 3081 Chinese secondary school students showed that the detection rates of depressive symptoms were 13.0% and 29.2% for those with good and poor parental relationships, and 11.4% and 30.9% for those with close and distant parent-child relationships, suggesting that poor family relationships may increase the risk of depression among secondary school students. This suggests that poor family relationships may increase the risk of depression in middle school students. Dysfunctional parental relationship is a common stressed person for adolescents, which makes children more likely to form insecure attachment relationships, negatively affects their emotional regulation and behavioral control, and leads to children being more prone to depression and suicidal thoughts, as well as more likely to be socially fearful and socially avoidant at the same time. In addition, parental conflict increases the incidence of problematic behaviors such as alcohol and tobacco use among adolescents. Dysfunctional parental relationships may lead to separation or even divorce, resulting in changes in family structure, which in themselves often have less impact on adolescent mental health than parental conflict as a stressed person. Good parent-child relationships can increase family cohesion, improve life satisfaction, increase pro-social behaviour and reduce the risk of depression. High-quality parent-child relationships are also effective in reducing the incidence of suicidal behavior among depressed adolescents^[4].

4.5. Parenting style

Parenting styles are the views, attitudes and styles of parents that have a certain degree of internal consistency and stability in the upbringing of their children. Parenting styles have a significant impact on adolescents' personality development and mental health. Positive parenting styles include emotional warmth, support and acceptance; negative parenting styles include punishment, over-protection and interference. Parenting styles are related to adolescent mental health. Studies have shown that parental over protection is a risk factor for the development of adolescent depression, while parental emotional warmth is a protective factor for the development of adolescent depression. A cross-sectional study of 6,195 middle school students showed that parental care reduced the risk of adolescent depression, whereas parental over control increased the risk of depression and self-injurious suicidal behavior". This may be due to the fact that positive parenting styles such as emotional warmth may increase adolescents' self-esteem and psychological resilience, thus positively affecting adolescents' mental health, whereas negative parenting styles such as rejection and over protection may negatively affect adolescents' mental health through the mediating effect of lowering the level of self-esteem as well as psychological rigidity. In adolescents with depression, harsh and indifferent parenting styles increase the risk of suicidal behavior.

5. Playing the family environment to regulate adolescent depression pathway

5.1. Focusing on the family environment

Studies have shown that different family environments have a certain impact on the occurrence of adolescent depression, and studies of behavioral network and interaction lag analysis have shown that the conflict between both parents is the main factor leading to the occurrence of adolescent depression. Marriage is the cornerstone of a family, and the lower the quality of the parents' marriage and the more conflict there is, the more likely adolescents are to develop depression and anxiety. Adolescents who live in long-term conflict-based families have significantly poorer mental health. Parents arguing in front of their children can be very damaging to children's mental health, especially if the argument involves their children, which can lead to feelings of guilt and self-blame. Therefore, parents should try to create a good environment for their children to grow up in. First of all, try to minimize conflicts with your children and try to maintain a harmonious family atmosphere. Creating a good family atmosphere will help relieve children's tension and stress, enhance their sense of security and prevent depression and anxiety. Secondly, parents should actively communicate with their children when conflicts arise and set a good example for them. A collaborative approach to communication is used to constructively resolve differences and conflicts between couples in order to minimize conflicts in front of the children. When parents have conflicts in front of their children, parents should appropriately explain the situation to their children, treat their children as thinking "adults," let their children understand the cause of the conflict, listen to their children's opinions, and work together to solve the problem. This helps to develop conflict resolution skills in adolescents and ensures that the family can communicate and work together to solve problems when conflicts arise. In addition, at the individual level, when parents are in conflict, adolescents need to analyze the conflict and understand that they have nothing to do with the conflict and cannot blame themselves for the conflict between parents^[5].

5.2. Targeted education based on gender differences

In addition, educators and parents should also pay attention to the differences between men and women, and in particular to female depression. Research has shown that girls' depression is more related to their negative home environments, and that girls are more sensitive to unfavorable home environments and are more likely to transform their negative experiences at home into depression^[6]. Therefore, educators should pay attention to the impact of negative home environments on girls' mental health and provide them with effective psychological counseling. In addition, there are also some studies that show that males transform the unpleasant experiences they encounter at home into external problems. The results show that the percentage of boys with externalizing problems increases when they come from different families. Educators and parents should pay attention to exploring the causes of boys' externalizing problems, and educators should effectively deal with the causes of those externalizing problems that are due to poor family environments, parents' marital discord, and problematic parent-child communication as a means of reducing adolescent boys' externalizing behavioral problems.

5.3. Help children find the meaning of life

With the popularization of the Internet and the improvement of social productivity, teenagers nowadays receive more information than ever before, such as “inward roll”, “996”, “chicken child” and so on. These messages are filled with a lot of anxiety. Even adults with a sound mind will inevitably become anxious when they see such content, let alone teenagers whose worldview, outlook on life and values are not yet perfect. Not only are teenagers anxious, parents are anxious too. Parents should realize that their children cannot keep sprinting in the marathon of life. Parents should guide their teenagers to combine their hobbies with their future career planning, to clarify what their life aspirations are, what their ideal job is, where they want to work, etc. This can help teenagers rationally determine their growth expectations and find the meaning of life.

5.4. Strengthen the link between parent-child relationship and cultivate children's pleasant emotional state

With the increasing pressure of teenagers' schoolwork, parent-child companionship is often neglected by parents, but in fact, the family is the most direct social support system for individuals, and has the most obvious influence on the psychological development of teenagers. Parents should create a harmonious family atmosphere for their children with a tolerant attitude, so that children can feel the warmth of the family and the care of parents; At the same time, parents should spend more time with their children, take their children out to contact nature during the holidays, and carry out high-quality parent-child activities, which is conducive to enhancing parent-child relationship and promoting the physical and mental health of teenagers. When teenagers encounter frustration, parents should not ignore or cynical or even blow, should be timely guidance and encouragement, with communication instead of orders, with companionship instead of blame. In daily life, parents should find and understand the latest trends in adolescent growth, can talk to their children, through regular “family meetings” or set up “parent-child mailbox” to increase parent-child interaction, participate in the important moments in the growth of adolescents. Parents should praise their children's good points and help them build self-esteem and self-confidence. Parents should master the principle of effective listening and communicate more with their children; When there is parent-child conflict, try to “reverse the role”, empathy, to avoid conflict accumulation. In addition, if the real conditions do not allow, such as left-behind children's parents are not around, online parent-child communication can also reduce the level of depression in adolescents.

5.5. Help children develop good living habits

Due to academic pressure, the use of electronic products and other issues, many teenagers have trouble sleeping, as if not staying up late will be “left behind”, as if not staying up late is to deprive the “free time alone”. Generally speaking, primary school students should not sleep less than 10 hours, middle school students should not sleep less than 9 hours, high school students should not sleep less than 8 hours. Many students and parents believe that staying up late to study is a sign of hard work and effort, and an effective way to outperform their classmates. However, sleep is a physiological process that is essential to individual life, and it is also the foundation of a teenager's ability to consistently improve his or her grades. Some studies have found that sleep helps to creatively solve problems when they are difficult to solve. It is important for your child to develop good sleeping habits. Avoiding strenuous exercise before bedtime, doing short bursts of paper reading, drinking a small glass of warm milk, and lying down when you feel sleepy these help children fall asleep better. Parents should also encourage their teens to actively participate in school activities such as recess and physical education classes to ensure exercise. Encourage your teenager to develop hobbies and choose interesting sports activities such as running, swimming, basketball, badminton and so on. Numerous studies have shown that ensuring proper exercise can effectively reduce teenagers' depression levels and maintain their mental health.

6. Conclusions

Depression is not a child's “pretense” or a child's performance, but a common mental health problem of adolescents in the process of growing up. Of course, our goal should not only be to detect and treat depression, but also to improve the ability of adolescents to regulate their emotions and cope with setbacks, and to guide them to adapt to life in a positive and optimistic way. Just as Chinese

medicine emphasizes “treating the disease before it is diagnosed”, prevention is better than cure. The family environment is the environment that children will come into contact with every day, and it plays an important role in the healthy development of children's body and mind. Therefore, parents should care about their adolescents, so that they can grow up healthily in a positive state of mind.

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