

# Prevalence, Socio-Demographic and Psychological Factors Correlate to Mental Health Problems in Chinese Adolescents

Ruijie Feng

Rutgers preparatory school, Beijing 100107, China.

---

**Abstract:** According to World Health Organization's 2021 report, an estimated one in seven adolescents aged 10-19 suffer from mental health problems in the world (WHO, 2021). Some mental illnesses such as depression and loneliness are the main reasons they engage in self-harming and suicidal attempts. Additionally, primary mental health issues usually start in adolescence and are essential to address early to prevent the development of more severe psychiatric disorders in adulthood.

**Keywords:** Mental Health; Depression; Suicidal Tendency

---

## Introduction

The frequency of mental health problems may be increasing. For example, psychosocial problems discovered by primary care physicians in the United States grew from 7% in 1979 to 19% in 1996 (Kelleher et al., 2000). This phenomenon is also common in China. Adolescence is an exceptional and critical development stage. They are awakening to a sense of individuality, a desire for independence, and a demand to form their own values. Any environmental change, such as the new Covid-19 epidemic that has rapidly spread across the globe, could make adolescents vulnerable to mental health problems. Therefore, it is crucial to study adolescents' mental health issues. The present study takes a review method to describe the status of mental health issues of adolescents and summarizes the influencing factors of mental health to provide scientific guidance to psychological professionals and the government in formulating targeted policies.

## 1. The mental health status of Chinese adolescents

### 1.1 Depression

A meta-analysis based on 51 studies involving a total of 144,060 adolescents from 48 different cities in 23 provinces across mainland China indicated the overall pooled prevalence of depressive symptoms among them is approximately 24.3%. The focus of the studies varied slightly, so their prevalence was estimated to range from 6.2% to 64.8% (Tang et al., 2019). It is undeniable that the prevalence of depression is increasing, and so is the need to study the factors that influence it to prevent and treat it.

### 1.2 Sleep Disturbance

The researchers investigated the presence of sleep disturbances in 63 studies covering 430,422 adolescents in China, with an overall combined prevalence of 26%. The prevalence of middle school adolescents was 20%, and for high school adolescents, it was 28% (Liang et al., 2021). Effective treatments are needed to address sleep problems for patients.

### 1.3 Suicide

High suicide rates among adolescents have been reported in various countries. Suicide refers to two aspects: suicidal ideation and suicidal attempts. Suicidal ideation is defined as the presence of passive thoughts about wanting to be dead or active thoughts about killing oneself, not accompanied by preparatory attempts (Posner et al., 2007). Suicide attempts are recognized as nonfatal self-directed, potentially injurious attempts with any intent to die as a result of them (Posner et al., 2007). Ma et al. (2015) summarized the overall prevalence of suicide attempts among Chinese adolescents as 2.94% by

studying 200,124 participants who met eligibility criteria. Subgroup analysis revealed a prevalence of 2.50% for males and 3.17% for females.

In another longitudinal study of adolescent behavior and health in Shandong, the researchers surveyed 11,831 adolescent students from three counties by questionnaire about their suicidal ideation (ST), psychological status, et. The results showed that the prevalence of suicidal ideation was 10.7% in males and 14.7% in females. The actual prevalence of suicide was 1.3% for males and 1.8% for females (Liu et al., 2019). These findings underscore the importance of early intervention for suicidal attempts among Chinese adolescents.

## **1.4 Internet addiction**

In the information era, internet addiction is also a mental health problem that can exist in adolescents. A survey is conducted on 2620 high school adolescents from 4 high schools in Changsha in China. Results showed that 64 students who were diagnosed with Internet addiction and 64 students who were diagnosed with normal Internet use were used as a case-control study. The result showed that 88 percent of adolescents use the internet, but internet addiction was 2.4% (Cao et al., 2007). Another study of 10,988 adolescents from nine different cities in China showed a prevalence of 7.5% (Wang et al., 2013). The age of the whole sample was 13- 23 years old. It is evident from those two studies that internet addiction is also a major mental problem among adolescents.

## **1.5 Anxiety**

A survey that included 8079 adolescents who met the study inclusion criteria and completed the assessment indicated that 37.4% of Chinese high school students had anxiety symptoms. Mild anxiety was 27.0%, and moderate anxiety was 7.4%. The percentage of all participating students with mild to severe depressive symptoms was 43.7%, and the percentage with mild to severe anxiety symptoms was 37.4%. The most common symptoms were feeling nervous, anxious, or tense (53.6%), worrying about too many different things (47.3%), and being easily irritable or irritable (47.0%) (Zhou et al., 2020).

# **2. Factors of adolescents' mental health problems**

## **2.1 School factor**

Academic stress has become adversely impacted students' physical and psychological health in adolescents. China is a country that focuses on education and has historically linked academic achievement to future social status and wealth. Children face increased pressure from school and parents as they grow up. A study found that academic stress is a risk factor for the mental health of Chinese adolescents; particularly, a higher level of academic stress is associated with a higher level of school burnout, which in turn leads to a higher level of depression (Jiang et al., 2021). Another study indicated that schoolmate on school victimization, depression, and suicidal ideation is a positive role (Moore et al., 2018).

## **2.2 Individual factor**

First, the studies revealed that the prevalence of mental problems was affected by gender. The prevalence of depression was lower in boys than in girls (Tang et al., 2019) and another survey indicated that the percentage of male students with anxiety symptoms was 36.2% and it was 38.4% for female students (Zhou et al., 2020) because during adolescence, the hormonal changes around the physiological period can easily lead to girls' emotional turmoil and the natural sensitivity of them may be the reason why their prevalence is slightly higher than that of boys. Additionally, some studies indicated only children had a slightly lower prevalence of depressive symptoms than non-only children because they had better overall psychological outcomes (Cao et al., 2021) Parents who focus all their attention on one child are less biased and have more time to communicate, thus reducing conflict. Furthermore, all the resources tilt towards one child, and they are more likely to achieve better academic performance.

Each stage of children's mental severity is associated with a significant increase in psychosocial dysfunction as students grow older and face increasing complexity from school. As grade levels increase, the percentage of students experiencing depression and anxiety symptoms increases. Many students are unable to deal with the frustration of facing academic setbacks and lose their self-confidence through constant self-denial. Some students repress themselves in a competitive

environment. They stay up late to make homework and review notes. The reduced sleep schedule negatively affects their mood and brain, making them distracted and emotionally unstable during the day. Some students numb themselves by playing games or surfing the internet for long periods of time. But they may also become addicted to the internet because they lack self-control. In addition, Liu et al. (2019) found that insomnia is a bridge between life stress and suicide. Adolescents want to escape the depressing environment and the pain of insomnia through suicide.

## 2.3 Family factor

Some children experience domestic abuse during adolescence. A longitudinal study including 1,957 adolescents showed that child emotional abuse was about 0.13; physical abuse was about 0.08 (95% CI=0.07-0.18); and sexual abuse was about 0.17 (Guo et al., 2021). Childhood abuse is one of the most typical early life stressors that can alter autonomic nervous system responses through the secretion of excessive cortisol, which is dangerous for mental health on a biological level. As a result, it can lead to cognitive impairment and mood disorders, which can lead to depression or suicidal choices in children. In addition, many parents do not care enough about their children because of their busy schedules and only blame their children for their declining grades. This puts a lot of psychological pressure on the children.

## 3. Strategies to improve adolescents' mental health levels

Through the above research and analysis, mental health issues in adolescent are a significant safety concern and are exacerbated by stress and social change. While most young people can cope with the changes associated with growing up, other maladjusted and marginalized adolescents are already present or at risk of developing mental health problems. Therefore, research can be used to prevent and treat mental illness in three ways: school, family, and society. Schools should reduce homework, give students time for adequate sleep, and reduce the risks of academic stress. They should also recruit psychologists to talk to children to relieve stress and set up regular psychological questionnaires to prevent the possibility of depression and suicide. Parents should communicate with their children more and encourage them when they fail, making the youth feel warm and caring. Nowadays, the epidemic has recovered with the control of vaccines. Children can play with friends to release stress and relieve their emotions. All of these will reduce the prevalence of mental illness. More preventive measures need to be achieved through more surveys and data analysis.

## References

- [1] Cao H, Sun Y, Wan Y, Hao J, Tao F. Problematic Internet use in Chinese adolescents and its relation to psychosomatic symptoms and life satisfaction. *BMC Public Health*. 2011;11:802.
- [2] Cao F, & Su L. (2007). Internet addiction among Chinese adolescents: prevalence and psychological features. *Child: Care, Health and Development*, 33(3), 275-281.
- [3] Cao Y, Huang L, Si T, Wang NQ, Qu M, & Zhang XY. (2021). The role of only-child status in the psychological impact of COVID-19 on mental health of Chinese adolescents. *Journal of Affective Disorders*, 282, 316-321.
- [4] Guo L, Wang W, Li W, Zhao M, Wu R, & Lu C. (2021). Childhood maltreatment predicts subsequent anxiety symptoms among Chinese adolescents: the role of the tendency of coping styles. *Translational Psychiatry*, 11(1), 1-10.
- [5] Kelleher KJ, McInerney TK, Gardner WP, Childs GE, & Wasserman RC. (2000). Increasing identification of psychosocial problems: 1979–1996. *Pediatrics*, 105(6), 1313-1321.
- [6] Liang M, Guo L, Huo J, & Zhou G. (2021). Prevalence of sleep disturbances in Chinese adolescents: A systematic review and meta-analysis. *Plos one*, 16(3), e0247333.
- [7] Liu BP, Wang XT, Liu ZZ, Wang ZY, Liu X, & Jia CX. (2019). Stressful life events, insomnia and suicidality in a large sample of Chinese adolescents. *Journal of Affective Disorders*, 249, 404-409.
- [8] Tang X, Tang S, Ren Z, & Wong DFK. (2019). Prevalence of depressive symptoms among adolescents in secondary school in mainland China: A systematic review and meta-analysis. *Journal of Affective Disorders*, 245, 498-507.
- [9] World Health Organization. (n.d.). Adolescent mental health. World Health Organization. Retrieved July 17, 2022, available from <https://www.who.int/news-room/fact-sheets/detail/adolescent-mental-health>

[10] Zhou SJ, Zhang LG., Wang LL, et al (2020). Prevalence and socio-demographic correlates of psychological health problems in Chinese adolescents during the outbreak of COVID-19. *European Child & Adolescent Psychiatry*, 29(6), 749-758.