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Explore the Causes and Countermeasures of Students' Mental Health Problems

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Abstract. Amid intensified educational competition, the social talent selection system remains examination-dominated by examinations, and the immense emphasis on the college entrance examination coupled with parents' excessive expectations has made middle school students face enormous pressure. Against this background, the detection rate of their mental health problems is rising, with academic stress as a core inducer. Based on recent authoritative data, this paper sorts out mental health manifestations in five dimensions (emotion, behavior, physical sleep, cognitive self, interpersonal emotion), analyzes five major causes (epidemic's long-tail effect, academic stress intensification, digital media impact, family environment constraints, social changes), and proposes targeted intervention strategies from five aspects. The study finds that middle school students' mental health problems are multi-dimensional and intertwined, and academic stress interacts with other factors to induce psychological distress; the proposed collaborative intervention strategies can effectively alleviate their pressure. It seeks to furnish a scientific foundation for establishing a collaborative mental health protection system involving schools, families, communities, and hospitals to safeguard middle school students.

Keywords: Middle school students, Mental health, Academic stress, Intervention strategies, Collaborative intervention

1. Introduction

Global research on adolescent mental health has made progress, confirming that academic stress, family environment and digital media use are closely related to middle school students' mental health problems [1]. For example, Van der Geer et al. found that long-term academic pressure induces adolescent anxiety and depression [2]. Scholars have conducted studies on single-factor interventions such as school-based counseling and family education guidance [3].

However, obvious research gaps exist: 1) Most studies focus on single-factor impacts, ignoring the interaction of multiple factors; 2) Intervention research is fragmented, lacking systematic exploration of school-family-community-hospital collaborative mechanisms; 3) In-depth analysis of post-epidemic adolescent mental health characteristics is insufficient; 4) Few targeted intervention systems centered on academic stress have been constructed [3].

This study focuses on "causes and collaborative intervention strategies of middle school students' mental health problems from the perspective of academic stress". It takes multi-dimensional mental

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health problems as the research object, with academic stress as the core entry point, to explore complex causes and construct a multi-level collaborative intervention system.

This study employs literature review and integrated analysis of empirical data. Through systematic literature review, it synthesizes research progress and gaps. Based on authoritative data from the Institute of Psychology, Chinese Academy of Sciences and other institutions, it integrates and analyzes the current situation, causes and intervention effects of mental health problems to ensure the reliability of conclusions.

This study has important theoretical and practical significance. Theoretically, it explores the multi-factor interaction mechanism and fills the gap of collaborative intervention research. Practically, the proposed strategies provide actionable guidance for relevant institutions to carry out mental health work, helping to improve the mental health of middle school students.

In the future, middle school students' mental health problems may become more complex. This study predicts that future research will focus on big data-based personalized intervention and long-term effect evaluation of collaborative systems. It is recommended that relevant departments enhance the development of mental health service systems and foster a social atmosphere of collective attention to adolescent mental health.

2. Current characteristics of mental health problems among middle school students

At present, middle school students' mental health problems show characteristics of multi-dimensionality, younger age and spread, covering emotion, behavior, physiology, cognition and interpersonal communication, with various problems intertwined.

2.1. Prominent emotional problems, increasing depression and anxiety

Depressive symptoms and anxiety disorders are the main emotional problems. The detection rate of depressive risk was 19.0% in 2020 (30% for junior high students), 14.8% in 2022, and 15%-25% in 2023-2024 (30% for junior high, 40% for senior high) [4]. The proportion of anxiety disorders rose from 28.4% in 2020 to 37.6% in 2023-2024, with the under-12 group increasing from 12% to 31% [4]. These data from authoritative studies indicate that emotional problems are the primary hidden danger.

2.2. Significant deviations in behavior habits, prominent mobile phone dependence and school weariness

Behavioral problems are mainly mobile phone dependence, internet addiction, school weariness and lack of learning motivation. In 2020, 91.9% of junior high students had smartphones, and 78% accessed the internet before 10 [5]. In 2024, 31.7% of 10–14-year-olds spent over five hours daily on mobile phones, with 48% of this usage devoted to short videos and games. Notably, rural students showed a higher addiction propensity (46.1%) than their county counterparts (39.4%) [4]. Meanwhile, the school weariness rate among 12–18-year-olds stood at 27.3% in 2024, with 12–15-year-olds making up 63.5% of this group [5], which has seriously impeded their academic advancement.

2.3. Deteriorating physical and sleep problems, steady rise in obsessive symptoms

Physical and sleep problems are deteriorating. From 2020 to 2021, 90.8% of junior high students had insufficient sleep (average 7.48 hours). In 2024, 33.4% had difficulty falling asleep, 36.6%

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woke up early, and 35% took over 30 minutes to fall asleep [4]. The proportion of obsessive-compulsive tendencies among junior high students was 35.94% from 2020 to 2022, with 61.2% abnormal in Grade 8. Over 30% of adolescents with depressive disorders had comorbid obsessive-compulsive disorder in 2023-2024 [4], increasing the complexity of psychological distress.

2.4. Cognitive self-bias, general lack of frustration tolerance

Cognitive and self-related problems are cognitive self-bias and poor frustration tolerance. In 2020, junior high students' personality satisfaction was 43.8% (Grade 7), 38.2% (Grade 8), 40.0% (Grade 9), and appearance satisfaction was 38.0%, 30.3%, 31.5% respectively [4]. Cognitive self-bias is still prominent in Grade 8 and highly correlated with negative emotions. The detection rate of poor frustration tolerance was 60-70% in Grade 7 and decreased to 30% in Grade 9, with a general decline in 2023-2024 due to increased academic pressure [4].

2.5. Prevalent interpersonal and emotional distress, obvious younger trend

Interpersonal and emotional problems mainly include campus interpersonal distress and adolescent emotional confusion. In 2020, 60-70% of Grade 7 students had interpersonal distress due to adaptation difficulties. In 2023-2024, 70% of campus interpersonal distress was "invisible bullying", with less than 30% timely intervention [6]. The incidence of emotional confusion in Grade 8 was 50-60% in 2020. The age of first depression in adolescents advanced from 13.4 (2010) to 9.8 (2024) [4], increasing psychological regulation difficulty.

3. Analysis of multiple causes of mental health problems among middle school students

Middle school students' mental health problems are caused by the interaction of multiple factors, including the epidemic's long-tail effect, academic stress, digital media, family environment and social changes. Specifically, against the current social backdrop, the talent selection system remains predominantly rooted in examination selection, and the college entrance examination, as an important examination that students must go through in their academic career, has garnered extensive attention not only from the students themselves but also from the whole society. This kind of extensive social attention inevitably brings enormous social pressure to middle school students, especially those in senior high school who are about to face the college entrance examination. At the same time, most parents have excessively high expectations for their children's academic performance, hoping that they can achieve excellent results in the examination and have a better future, which further multiplies the students' psychological pressure—they often fall into anxiety of worrying about poor grades and failing to live up to their parents' expectations. In addition, the academic burden of senior high school itself is relatively heavy, with a large number of courses, heavy homework and frequent examinations. Under the combined effect of social pressure, parental expectations and heavy academic burden, middle school students are extremely prone to psychological states such as anxiety, tension and depression, which have become important inducements for their mental health problems and interact with other factors such as the epidemic's long-tail effect and digital media impact to exacerbate related issues.

3.1. The long-tail effect of the epidemic continues to manifest

The COVID-19 epidemic's social isolation and resumption of school adaptation have exerted a profound long-tail effect. Online learning gave rise to irregular work and rest and decreased

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attention, while lack of offline interaction impaired impaired students' social skills. Studies showed that 30.8% of students' mental health deteriorated during the epidemic, with 19.7% improved [7]. Some psychologically fragile students still suffered from emotional distress and social phobia afterwards.

3.2. The "increasing effect" of academic pressure becomes the core incentive

Academic stress is the core inducer. In 2024, Shandong and other regions had 14 scored subjects in the high school entrance examination, increasing academic burden. Under the general-vocational division policy, the gap between parents' expectations and academic reality expanded, leading to 67% of junior high students feeling "learning helplessness" [4], forming a vicious circle of "pressure - emotion - academic decline".

3.3. The "double-edged sword effect" of digital media increases risks

Digital media has a double-edged sword effect. Students using short videos for over 90 minutes a day have a higher depression risk, and those using them for over 4 hours have a 42.1% depression risk [4]. The smartphone popularity rate among junior high students is 91.9%, but schools and families lack guidance, leading to 46.1% of students being unable to bear without mobile phones [5].

3.4. The "fundamental impact" of family environment has shortcomings

Family environment has a fundamental impact. Parental emotional neglect (40.1% risk rate) and insufficient communication (46.2% risk rate) are the main family factors for depression [4]. The depression risk rate of students from divorced families (10.0%) is higher than that from intact families (7.5%) [4]. Some families lack a supportive atmosphere, with parents ignoring psychological needs or having excessive expectations.

3.5. The "structural changes" of social environment bring new challenges

Social environment changes bring new challenges. Social media's "perfect personalities" cause inferiority and anxiety. The accelerated social rhythm reduces parent-child time, and 62% of parents deny their children's mental health problems [4]. The social support system is incomplete, with uneven distribution of psychological service resources.

4. Collaborative intervention strategies for mental health problems among middle school students

To address the multiple causes, a multi-dimensional collaborative intervention system is needed, focusing on academic optimization, emotional intervention, behavior correction, interpersonal support and systematic collaboration to improve middle school students' mental health.

4.1. Optimize academic management and alleviate academic pressure

Scientific academic management can reduce the burden and improve motivation. Hierarchical homework and flexible evaluation (process + value-added evaluation) reduced academic anxiety by

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18.2% in 2024 pilots [8]. "Learning significance reconstruction" courses helped a pilot school reduce Grade 8 students' school weariness rate from 45% to 32% [9].

4.2. Strengthen emotional intervention and correct cognitive bias

Precise intervention focuses on emotions and cognition. Group mindfulness intervention (twice a week, 20 minutes) reduced anxiety scores by 23.5% and improved depressive symptoms by 31% after 8 weeks [4]. The "emotional diary + peer empathy" method reduced cognitive self-bias detection rate by 25% in a rural junior high school [4].

4.3. Correct behavior habits and cultivate healthy literacy

Targeted measures correct bad habits. Digital literacy courses and home-school "Mobile Phone Use Contracts" reduced mobile phone dependence rate from 46.1% to 32.7% among 40,000 Sichuan junior high students [5]. The "three fixed" sleep plan (screen-free time, fixed schedule, 20-minute lunch break) reduced the insufficient sleep rate of Grade 9 students from 67% to 45% in Jiangsu and Zhejiang [4].

4.4. Improve interpersonal support and optimize family interaction

A collaborative interpersonal support network is built. Campus "invisible bullying" identification and peer assistance plans reduced interpersonal distress report rate by 30% in a Beijing junior high school [6]. Parent "non-violent communication" training camps reduced the risk of depression in families' students by 19% [4].

4.5. Build a collaborative system and strengthen systematic guarantee

A "school-community-hospital" collaborative system is established. The psychological screening-referral mechanism reduced psychological crisis incidence by 42% in a provincial pilot [4]. Teachers' psychological literacy micro-training improved the accuracy of identifying mental health problems from 52% to 78% [4].

5. Conclusion

This paper combines literature review and empirical data integration analysis, focusing on the theme of "causes and collaborative intervention strategies of middle school students' mental health problems from the perspective of academic stress". In terms of research background and gaps, it sorts out the global research progress on adolescent mental health and points out the existing deficiencies in single-factor research and collaborative intervention exploration; in terms of current characteristics, it summarizes the multi-dimensional manifestations of middle school students' mental health problems from five aspects: emotion, behavior, physical sleep, cognitive self and interpersonal emotion; in terms of cause analysis, it explores the interactive mechanism of five major factors including the epidemic's long-tail effect, academic stress intensification, digital media impact, family environment constraints and social changes; in terms of intervention strategies, it proposes targeted measures from five dimensions of academic management optimization, emotional intervention, behavior correction, interpersonal support and systematic collaboration. Boasting significant theoretical and practical value, this study addresses the research gap in collaborative interventions focused on academic stress while offering actionable guidance for relevant practice. In

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general, middle school students' mental health problems are complex social phenomena caused by multiple factors, with academic stress as the core inducer. Solving these problems requires breaking the single intervention model and building a multi-dimensional system, giving full play to the collaborative role of schools, families, society and medical institutions.

In the future, it is necessary to further improve the mental health service system, strengthen resource integration and precise intervention, enhance social attention and support, and create a good environment for middle school students' healthy growth.

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