

Research for the Relevant Factors and Influence on Students' Mental Health

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Abstract:

The mental health of students has been receiving more and more social attention. This article explains that the student's mental health has a wide influence, including but not limited to the academic aspect, social economic consequences, and public opinion. By organizing the existing literature, they summarize the important influence of focusing on students' mental health and some bad behaviors caused by negative minds. Meanwhile, speculating the relevant factors of students' mental health. The researchers use different ranges of data and methods to find and verify some factors that have a close relationship with students' mental health. Some specific conclusions have concluded that mental health is related to the frequency of physical exercise, social media, and academic stress. By enumerating related factors, this article sums up reasonable education suggestions and prevention suggestions and emphasizes that society, schools, and families have the responsibility to pay attention to the prevention of mental illness. The aim is to help the follow-up research to develop and put forward some practical recommendations based on the existing conclusions. At the same time, this paper points out that the range of data collected in relevant studies is generally small, and these studies do not consider the factors in different aspects. This might cause errors in conclusions or inadequacy for general generalization. Follow-up researchers can target these issues, the sample from different districts and schools, and use weighted analysis methods to conclude. This will make the conclusions more general.

Keywords: students; mental health; statistics; influence

1. Introduction

Students' mental health has increasingly become an important issue of social concern. The influence of students' mental health issues is not limited to the individual but is critical to a student's success in

higher education and other aspects. This issue also impacts other aspects of society, for example: academic achievements, social economic consequences, systemic racism, etc [1]. Lots of researchers have investigated and done statistics on the factors affecting students' psychological status with the aim

that giving information support for relief of students' negative psychological situations. The relevant studies show that teenagers are more likely to be influenced by distinct stress, which will cause negative psychological emotions [2]. Being in this state for a long time could not only make students' academic performance worse but also influence their normal lives and social. Even worse, they might choose inappropriate ways to regulate, such as alcohol, drugs, or crime. These problems are not limited to the United States but are a growing challenge in the whole globe. After using different methods to calculate the correlation between students' mental health and various factors, people can use these conclusions to practice the students' mental health precautions and construct more reasonable coping strategies. The mental health problem of students is a problem that the whole society needs to pay attention to and strive to solve, hence, these relevant calculations can clear directions for people to avoid running in opposite directions.

In most cases, only one specific factor affecting students' mental health is considered in each existing study. This is not conducive to conducting relevant experiments, which is because this will cause different researchers to do the same experiments and get the same results if they don't have a clear list of which factors have been proven. This problem could be seen as a social waste of resources and it also slows down the progress of relevant research to some extent.

Therefore, this article sorts out existing literature, minimizes the occurrence of such errors, and promotes relevant research to continue to explore. At the same time, this article presents the experimental methods and influence of different researchers and summarizes the main distribution of relevant factors. These research data and directions have practical significance, which provide reference data and examples for schools, families, and society to intervene students in a right way who suffer from mental illness. In this way, students can promote their overall development. By comparing the application significance of these methods, relevant suggestions are put forward to adapt to Chinese students. Through the combination of research data and practical application, researchers need to get closer to the purpose of promoting the improvement of students' mental health around the world.

2. Analysis and Suggestions on Students' Mental Health

2.1 Connotation and Performance of Students' Mental Health

The World Health Organization defines mental health as a

state of well-being in which a person fulfills his or her capacity, can cope with the stresses of normal life, can work productively, and can contribute to his or her community [3]. Mental health is usually seen as the presence of pleasant emotions and effective functioning in life, rather than simply the absence of negative emotions, or symptoms [4]. The development of individual psychology into the best state means that all kinds of psychological activities are normal, the relationship is coordinated, and the personality is in a relatively stable state. In this state, human life is colorful, humans' potential can be developed, and their value is more likely to be achieved. For students, they could coordinate interpersonal relations well, maintain enthusiasm for learning, and make it easier for students to achieve excellent academic aims. Positive mental health and welfare is a comprehensive concept that goes beyond health behaviors. It replaces traditional medical methods and emphasizes the treatment of mental illness [5]. Therefore, people define the psychological negative manifestations of college students as mental health is damaged, autonomy is uncharacteristically low, or unable to adapt to the normal stresses of life [6]. Judging from the general situation of Chinese college students, most of their mental health is healthy, but there is also quite a part of college student's mental health is not optimistic. Among these students, only a very small number of them have received professional help in psychological counseling, and most of them do not realize the problem, which means the urgency, necessity, and arduousness of mental health education to a certain extent.

According to the definition provided by WHO, mental disorders are identified by clinical disruptions in emotion, cognition, or behavior [7]. Some students had typical behaviors and thoughts before being diagnosed with depression, bipolar syndrome, and other common psychological diseases. Although service institutions in universities provide counseling methods and medications, most students do not use these services due to personal and social stigma [8]. If families and schools can timely identify and give psychological counseling and correct guidance, the diagnosis rate of such diseases can be reduced, especially among students with high pressure. Qualitative behaviors can be simply summarized as mental health disorders, including depression, and anxiety, as well as more obvious abnormal behaviors such as PTSD and eating disorders [9]. In addition, sleep disorders are included. At the same time, low-quality sleep can increase the risk of self-harm and suicide [10]. The main factors that cause these mental problems can be complex, and low sleep quality has been suggested as a potential cause [11]. Negative thinking, parental separation, sexual harassment experience, childhood adversity, and financial difficulties may be the trig-

gers of the above-mentioned mental illnesses [12].

It is particularly important to ensure the health and stability of students' mental health in today's society, but there are still some students whose situation is not optimistic. According to the analysis and inference, many potential factors will affect the psychological status of students, and then induce different degrees and types of mental illness. Through different experimental models and analyzing students' performance, previous scientists have been enriching these factors constantly. It follows that if people want to judge a student whether he or she has confusion or illnesses in psychology, they need to pay attention to his or her behaviors, surroundings, and his or her past. Based on these factors, people are more likely to put forward realistic targeted suggestions and necessary treatment methods, so as to construct a perfect basic framework for dealing with students' psychological conditions and make contributions to the related research and treatments in the future.

2.2 Research Methods and Corresponding Conclusions

For students with different backgrounds and social environments, researchers often use distinct models, which lead to different conclusions and relevant factors. For example, relevant research highlights the complexity of mental health and provides a basis for assessing various aspects of students' psychological situations. Rajesh Vagiri and his team collected data from a sociodemographic and health-related questionnaire about 144 medical undergraduates by using a multi-dimensional PMH instrument [13]. The conclusion is that medical schools can better support the mental health of medical students. Another experiment analyzes the relationship between the final test scores and mental health status in the 2022-2023 academic year by using the data from 600 students at Hebei University of Water Resources and Electric Power. Researchers found that both increased anxiety and academic pressure are negatively correlated with academic performance [14]. Simultaneously, researchers found that older students suffer from lower levels of psychological symptoms, which may be because they have been used to university campus life and have developed strategies to cope with stress [14]. Through the analysis of the frequency of students' exercise and mental health status, the researchers conclude that the most obvious effect of high-frequency physical activity on mental health is in self-rated health [15]. In addition, through the general linear regression equation model, researchers analyze the sample survey data from the "Adolescent Health Theme Database" of China National Population Health Science Data Center to investigate the health status and health-related behaviors of primary and

secondary school students by using Karlson-Holm-Breen (KHB) model. It has been shown that different frequencies of physical activity affect mental health in different ways [15, 16]. This experiment uses self-evaluation as a mediator to prove that increasing the frequency of frequency of physical activity helps to elevate the physical health level of adolescents, thereby promoting self-rated health status [17]. The other study is from Sanci, he finds that social media addiction is associated with poorer academic performance and negative health [18, 19]. In the meantime, there are also situations in which negative information on social media hits students' self-confidence and leads to negative psychological conditions [19].

By summarizing different research and data source groups, it can be roughly seen that the research is mainly conducted by middle school students and undergraduates. Data on primary school students or students with graduate and higher degrees are almost not included, possibly because students with less than secondary school degrees are too young and the corresponding academic and social pressure is too small. Such students are less likely to suffer from mental illness and therefore are not typical of students. Postgraduate students and students with higher education levels are generally adults, which means they already have social experience and are slightly older than students with other education levels. Therefore, they can adjust their psychological conditions and reduce the morbidity to a certain extent, which is not representative.

The factors that may lead to negative psychological conditions are high academic pressure, relatively low grades, less frequent sports activities, social media, etc. At the same time, the correlation models include KHB, which decomposes the effects of both discrete and continuous variables to reduce the error and uses the general linear regression equation to estimate. Some researchers also make summary estimates through thematic analysis and draw relevant conclusions. These conclusions provide ideas and methods for alleviating negative psychology. It can also act as an ego regulation to relieve stress. In severe cases or when they are unsure of their psychological condition, they still need to actively seek medical treatment.

2.3 Education Strategies for Students' Mental Health

Through the above analysis of the causes of negative psychological conditions, this article summarizes several education methods that can alleviate such problems. First of all, universities have to focus on creating a favorable learning environment and minimizing academic stress for students to promote their students' learning motivation. It needs to include a flexible curriculum arrangement, a low teacher-student ratio, and gradually increasing the

workload of students [14]. This is beneficial to relieve the negative psychology caused by not adapting to the new campus and the high academic pressure. Second, schools can provide more time and opportunities for students to do physical exercises, which means the frequency of sports activities can be increased. Relevant studies show that sports could improve students' mental health, and exercise frequency is positively correlated with physical condition [20]. Third, families should take measures such as restricting the internet to reduce the possibility of students becoming addicted to social media. Schools can also set reminders and warnings to reduce internet addiction, provide a variety of ways for students to complete academic assignments and find literature for their essays, and minimize students' access to electronic devices. In this way, the negative psychological impact of electronic device addiction on students can be minimized. At the same time, relevant courses should be carried out to relieve students' psychological damage caused by negative information on social media. Actively guide students to get out of the psychological shadow and adjust their mentality. Next, schools and communities should be actively equipped with psychologists and medical rooms. The aim is to ensure that students have access to counseling or treatment channels to ensure that more students can receive psychological guidance and relief on time. In this case, it can effectively reduce and prevent the incidence of mental illness. Finally, the time for relevant education should be increased. It can increase the efficiency of study, promote the healthy emotional and mental health of students, and reduce depression and anxiety appropriately [21]. In addition, it should be clarified that the relevant suggestions are mainly from the perspective of schools, families, and society, which do not mention the students themselves. The reason is that some students have the psychological of avoiding medical treatment.

3. Shortcomings and Suggestions

The first point to note is that future researchers need to get a wider range of sources to seek more general research data. One of the reasons is that most of the data in the existing literature take the form of a sampling survey and the source of experimental data in the literature is generally a university or a middle school, which means the different grade distributions may lead to the situation that the conclusions cannot be overgeneralized. For example, the conclusions obtained from analyzing the relevant data of students at Hebei University of Water Resources and Electric Power may not be applicable to explain the psychological status of middle school students. Another possible reason is that there are local differences, such as different levels

of education, which might cause the limitations of conclusions. Although they are only preliminary inferences, these possible negative influences from the limited range of data cannot be excluded. Such issues require researchers to expand access to data to solve them.

The second point that needs to be emphasized is that this article only analyzes the factors mentioned in part of the existing literature, so the list of influencing factors is incomplete and needs to be summarized by subsequent researchers. Subsequent related researchers can speculate and conduct experiments from different dimensions, not only limited to the student's current stage. These dimensions include family background, childhood experience, and other time points that may cause differences. There is also a need to ensure that the broader societal context in which data are captured is consistent. For example, during the COVID-19 period, students will have new pressures on their life and study [22]. So, their average status of mental health was less stable than students in the normal period. Researchers are expected to count multiple possible factors at the same time, as much as possible to ensure that factors other than the study variables are the same. This could be more likely to obtain general conclusions. Finally, it is believed that such issues will be further explored as more experiments are analyzed and summarized. At the same time, this paper can better help society to solve such problems by summarizing relevant existing conclusions and appealing the society to pay more attention to these problems and issues.

4. Conclusion

According to the listed studies, the causes of students' negative emotions are related to grades, family experience, and academic performance. At the same time, this paper also emphasizes and discusses that ensuring students' mental health is more likely to cultivate talents needed by society. Through the summary of research methods, it can be concluded by qualitative analysis and model estimation that the psychological status of students is not caused by a single factor, and even students of different grades are affected by the same factor to different degrees. In addition, the data sources for different conclusions may coincide. Both the poorer student academic performance caused by social media addiction and the psychological harm caused by negative online comments were drawn from the same data range. Therefore, we can summarize and generalize the conclusions to students of the same grade or even to students of different grades. Because the data are not exactly the same, an error in the generalization of the conclusion might be caused. This paper also suggests that such problems can be alleviated by expanding the scope

of data.

5. References

- [1] Alan I. Leshner. Target student mental well-being. *Science*, 2021, 371: 325-325.
- [2] House L.A., Neal C., Kolb J. Supporting the mental health needs of first-generation college students. *Journal of College Student Psychotherapy*, 2020, 34(2): 157-167.
- [3] World Health Organization. Constitution of the World Health Organization. 2024.
- [4] Lamers S.M., Westerhof G.J., Bohlmeijer E.T., ten Klooster P.M., Keyes C.L. Evaluating the psychometric properties of the mental health continuum-short form (MHC-SF). *J Clin Psychol*, 2011, 67(1): 99-110.
- [5] World Health Organization. The World Health Report 2001: Mental Health: New Understanding, New Hope. 2001.
- [6] World Health Organization. World Health Report. Geneva: World Health Organization, 2002.
- [7] Aghabozorgi K., van der Jagt A., Bell S., Smith H. How university blue and green space affect students' mental health: A scoping review. *Urban Forestry & Urban Greening*, 2024, 97.
- [8] Eisenberg D. Stigma and help-seeking for mental health among college students. *Med Care Res Rev*, 2009, 66(5).
- [9] American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders (5th ed.). 2013.
- [10] Chandler L., Patel C., Lovecka L., Gardani M., Walasek L., Ellis J., Meyer C., Johnson S., Tang N.K.Y. Improving university students' mental health using multi-component and single-component sleep interventions: A systematic review and meta-analysis. *Sleep Medicine*, 2022, 100.
- [11] Bragança M. Quality of sleep and depression in college students: A systematic review. *Sleep Science*, 2018, 11(4).
- [12] Sheldon E., Simmonds-Buckley M., Bone C., Mascarenhas T., Chan N., Wincott M., Barkham M. Prevalence and risk factors for mental health problems in university undergraduate students: A systematic review with meta-analysis. *Journal of Affective Disorders*, 2021, 287.
- [13] Vagiri R., Mphasha M., Bangalee V., Grootboom W., Makhele L., Padayachee N. Thriving beyond the stethoscope: Unveiling positive mental health among medical students at a University in South Africa. *Dialogues in Health*, 2024, 5.
- [14] Zhang J., Peng C., Chen C. Mental health and academic performance of college students: Knowledge in the field of mental health, self-control, and learning in college. *Acta Psychologica*, 2024, 248.
- [15] Li W., Gao Y., Liu G., Hao R., Zhang M., Li X. Shifting the Paradigm: A Fresh Look at Physical Activity Frequency and Its Impact on Mental Health, Life Satisfaction, and Self-Rated Health in Adolescents. *International Journal of Mental Health Promotion*, 2024, 26(2).
- [16] Shandong University. Adolescent health subject database. National Population Health Science Data Center Data Warehousing PHDA, 2021.
- [17] Marques A., Mota J., Gaspar T., de Matos M.G. Associations between self-reported fitness and self-rated health, life satisfaction, and health-related quality of life among adolescents. *J Exerc Sci Fit*, 2017, 15(1).
- [18] Pew Research Center. Social media and news fact sheet. 2022.
- [19] Hou Y., Xiong D., Jiang T., Song L., Wang Q. Social media addiction: Its impact, mediation, and intervention. *Cyberpsychology: Journal of Psychosocial Research on Cyberspace*, 2019, 13(1).
- [20] Malagodi F., Dommert E.J., Findon J.L., Gardner B. Physical activity interventions to improve mental health and wellbeing in university students in the UK: A service mapping study. *Mental Health and Physical Activity*, 2024, 26.
- [21] Sin N.L., Lyubomirsky S. Enhancing well-being and alleviating depressive symptoms with positive psychology interventions: A practice-friendly meta-analysis. *Journal of Clinical Psychology*, 2009, 65(5): 467-487.
- [22] Liyanage S., Saqib K., Khan A.F., Thobani T.R., Tang W.-C., Chiarot C.B., Butt Z.A. Prevalence of anxiety in university students during the COVID-19 pandemic: A systematic review. *International Journal of Environmental Research and Public Health*, 2022, 19(62).