

## Study on the Relationship between Social Support of Medical Students and Psychological Resilience and Depression

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**Abstract:** Objective: To explore the relationship between social support, psychological resilience and depression of medical students. Methods: 1233 medical college students from medical and non-medical schools were randomly selected by self-efficacy scale, social support scale, family function scale and Psychological Resilience Scale. Results: there was no significant difference in scores of SAS, SDS, SF-36 and SSRS between medical students and non-medical students ( $P > 0.05$ ). There were significant differences in scores of some scales among medical students of different genders, nationalities and places of origin ( $P < 0.05$ ). The results of regression analysis showed that the total score of SSRS had a negative impact on the SAS score, subjective support, objective support, and support utilization had a negative impact on the SDS score, and the total score of SSRS had a positive impact on the score in the physiological field. Conclusion: Medical students' psychological toughness is generally high, and high self-efficacy, good social support, and emotional involvement of excessive family functions are important factors affecting psychological toughness.

### 1. Introduction

As the main force of future medical work, the mental health and quality of life of medical students are not only the embodiment of their own health status and the quality of higher education, but also related to the level of future medical service in the whole society [1]. Psychological resilience is a brand-new concept currently studied by the international psychological circle. It refers to an individual's good adaptation to life adversity, trauma, tragedy, threat or other major pressures in life. Facing the increasingly competitive job-hunting environment, college students' psychological pressure for employment is increasing. If they cannot adjust in time, they may not only induce many psychological diseases, but also directly affect the success rate of employment, and seriously affect the realization of their professional goals and even the development of higher education [2]. How college students grow up in frustration and maintain their mental health and sound personality is a problem that educators need to think about today, and psychological resilience is the ability to deal with trauma or adversity [3]. Traditional medical education will make medical students more likely to suffer from mental health impairment such as anxiety, depression and excessive pressure than ordinary groups [4]. In higher medical education, it is necessary to fully understand the influencing factors of psychological toughness of medical students, take targeted measures to cultivate their complete personality and healthy mentality, and improve the adaptive system of medical students.

Psychological resilience, as a hot trend of positive psychology research, is a universal adaptive ability. Specifically, it refers to a more stable psychological trait that can reduce, adapt, and even overcome the destructive effects of bad factors on themselves when facing disaster or stress [5]. Chinese psychology and moral education workers have carried out a lot of research on university students' mental health, employment psychology, learning motivation and other aspects and achieved certain results. Help individual students to establish a positive self-protection mechanism and develop their psychological potential, thereby promoting their physical and mental health [6]. Social support should be one of the factors affecting the physical and mental health of medical students, but there are few studies specifically on the relationship between medical students' mental health and quality of life and social support. The support of families and other members of society in social support plays an important role in the development of individual psychological resilience,

and can even predict the level of psychological resilience to a certain extent [7]. Psychological toughness is an important concept of positive psychology. It fully values the potential positive power of individuals and related environmental factors. Psychological skills training can enhance the individual's own psychological toughness and prevent the occurrence of psychological and behavioral problems.

## 2. Objects and Methods

### 2.1 Objects

Using cluster and random sampling method, 868 people from 20 classes of 3 medical specialties in medical college and public health college were selected for questionnaire survey. Using the time of public psychology classes, with the cooperation of the squad leader, the purpose of the survey and the matters needing attention were explained, the survey scale was uniformly distributed, and 730 valid questionnaires were recovered. In addition, 365 students from 10 classes of 3 non-medical specialties in the college of chemical engineering and the college of literature were selected as the control, and 320 valid questionnaires were collected.

### 2.2 Research Tool

Investigation on Anxiety and Depression. Self-Rating Anxiety Scale(SAS) was used to investigate the anxiety state of the subjects and Self-Rating Depression Scale(SDS) was used to investigate the depression state. SAS and SDS are both 20 items, and each item is equivalent to one related symptom, with a score of 1-4. The final score is the total score of each item  $\times 1.25$ , ranging from 0 to 100. The higher the score, the more anxiety and depression are.

Social Support Survey. The Social Support Rating Scale(SSRS) was used to investigate the social support status of the research subjects. SSRS has 10 entries. Including objective support, subjective support and social support utilization and other three dimensions. The scale has good reliability and validity, and can better reflect the individual's social support level.

Sociodemographic Data Survey. The sociodemographic data of the subjects surveyed by the self-made questionnaire include 7 items, including age, gender, grade, nationality, origin (province or province) and family economy (poor, average and better).

### 2.3 Methods

The grade counselor will gather all the students in the selected class into the classroom, issue the questionnaire uniformly, guide the students to fill in the questionnaire anonymously on the spot, and recycle the questionnaire on the spot after completion. Spss19.0 software package was used to analyze the data. The main statistical methods for data processing are: independent sample mean t-test, correlation analysis and multiple linear regression analysis, with  $P < 0.05$  as the difference.

## 3. Result Analysis

A comparison of anxiety, depression, quality of life and social support among medical students with different socio-demographic characteristics is shown in Table 1-3.

Table 1 Comparison of Anxiety, Depression and Social Support among Medical Students of Different Genders

Item		Male	Female
SAS		41.36 $\pm$ 10.02	39.87 $\pm$ 9.31
SDS		48.59 $\pm$ 11.17	46.29 $\pm$ 10.74
SF-36	PCS	80.26 $\pm$ 17.33	82.43 $\pm$ 13.48
Social support	MCS	67.33 $\pm$ 17.26	71.56 $\pm$ 12.37
	Subjective support	22.03 $\pm$ 4.53	22.36 $\pm$ 3.56
	Objective support	8.96 $\pm$ 3.67	9.45 $\pm$ 2.97
	Support utilization	7.64 $\pm$ 19.2	8.37 $\pm$ 1.99
	SSRS total score	38.17 $\pm$ 7.17	39.97 $\pm$ 6.44

Table 2 Comparison of Anxiety, Depression and Social Support among Medical Students of Different Nationalities

Item		Han nationality	Ethnic minority
SAS		40.27±10.21	44.87±8.32
SDS		47.48±11.18	51.29±9.73
SF-36	PCS	81.37±17.34	71.43±11.45
Social support	MCS	68.62±17.31	61.56±10.31
	Subjective support	23.14±4.56	21.36±2.52
	Objective support	8.89±2.52	9.35±3.99
	Support utilization	7.75±19.13	8.12±2.98
	SSRS total score	37.28±6.01	37.83±5.34

Table 3 Comparison of Anxiety, Depression and Social Support of Medical Students in Different Source Areas

Item		This province	Other provinces
SAS		40.18±9.31	41.77±7.46
SDS		46.32±10.23	48.39±8.83
SF-36	PCS	82.58±15.22	79.53±10.72
Social support	MCS	61.87±11.34	66.27±10.34
	Subjective support	22.24±5.51	21.28±3.68
	Objective support	9.29±3.62	9.75±3.91
	Support utilization	7.73±17.22	7.22±3.92
	SSRS total score	38.26±5.04	37.92±6.35

#### 4. Discussion

Medicine is a science for the purpose of improving human health. Solid theoretical basis and clinical operation skills are essential. In addition, it is essential to have a good mentality. Compared with the general population, medical students face heavy academic and employment pressure, and their physical and mental health and quality of life have been negatively affected to some extent. If the family provides too good services to its members, it may lead to excessive dependence on them and reduce their coping ability, which is not conducive to individual growth. There was no significant difference in SAS score and SDS score between medical students and non-medical students, and the incidence of anxiety and depression was not higher than non-medical students. Compared with medical students, non-medical students with SF-36 score have no difference in other dimensions, PCS score, MCS score and total score except for higher score in PF dimension. High-ranking individuals in psychological resilience can often achieve success because of their focus on their goals. Self-confidence after success improves their sense of self-efficacy, while repeated failures and setbacks reduce their sense of self-efficacy. In the future mental health work, we should carry out targeted training from the perspective of perfect personality. For students with serious pessimism and poor toughness, we should timely and effectively intervene and coach, adjust their mental state to a suitable level, so as to promote them to face study and life with better state and enthusiasm.

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