



JOB SATISFACTION AND JOB BURNOUT OF TEACHERS IN SELECTED MEDICAL COLLEGES IN SOUTHEAST CHINA

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Abstract: In this study, we investigated the job satisfaction of 451 teachers in Chinese medical colleges. The characteristics of the profession of medical college teachers in China are very special. A large number of them are part-time teachers. In addition to teaching in medical colleges as teachers, they also work as doctors in hospitals affiliated to medical colleges. The dual integration of "teaching and medical treatment" is the current situation of medical college teachers in China, and it is also one of the characteristics that medical college teachers are different from other college teachers. How to improve the sense of happiness of medical college teachers, improve the job satisfaction of employees, and reduce job burnout has become the primary problem to be solved at this stage. The results of the questionnaire survey on the teachers of Chinese medical colleges and universities show that: 1. Their overall job satisfaction is average, only in the interpersonal dimension. 2. Women's job satisfaction is lower than that of men. 3. Young people with little work experience and low professional title have lower job satisfaction. 4. The job satisfaction of master degree is the highest, while that of doctor degree is the lowest. 5. Marriage does not affect satisfaction. 6. The satisfaction of part-time teachers is lower than that of full-time teachers. The results of this study can help school administrators to better understand the status quo of teachers' satisfaction in medical colleges in China, explore the influencing factors of job satisfaction, and provide a theoretical basis for the rational development of human resources in medical colleges and provide a way to solve practical problems.

Index Terms : Job Satisfaction; Medical college ; Part time teachers ; Full time teachers ; Medical teacher

1. INTRODUCTION

Job satisfaction first appeared in the research report of Hawthorne Experiment (1927-1932) carried out by Mayo et al. They believed that job satisfaction was a psychological state that encouraged morale and could have a positive impact on labor productivity and enthusiasm. The key factor affecting job satisfaction is mainly the personal emotional factors of workers (Mayo, 1933). The concept of "job satisfaction" was first proposed by R. Hopcock (1935), an American psychologist, in his book "Job Satisfaction". It is the sum of personal feelings about psychological, physiological, environmental and other factors, and it is an intuitive feeling about their own work. Since then, the study of job satisfaction has attracted extensive attention from scholars at home and abroad, and has become an important research field in management. Job satisfaction is generally considered as a tool to measure the satisfaction of individuals or most employees with their jobs, which plays a positive role in stimulating work.

The job satisfaction of college teachers has important practical significance for improving the level of school management, maintaining the stability of the teaching staff and ensuring the physical and mental health of teachers. Teachers also have a high incidence of job burnout, and the degree of job burnout of college teachers in China is generally at the medium level (Dong Hua, 2022). Therefore, understanding the current research status of job satisfaction and job burnout of college teachers, analyzing the factors that affect job satisfaction and job burnout of college teachers, and proposing specific measures to enhance teacher job satisfaction and reduce job burnout have become important research contents to improve teaching management.

Lin Zhenxiu (2018) believes that teachers' job satisfaction is a kind of attitude or view about the work itself and the surrounding environment in the work process. Its level directly affects teachers' work enthusiasm, work efficiency, work quality, etc., and is an important psychological indicator to measure organizational performance. Wu Xiangrong (2019) believes that teachers' job satisfaction is a subjective value judgment of teachers, which not only includes teachers' internal satisfaction with self expectation and self realization, but also includes teachers' external satisfaction with working conditions, working environment, salary and remuneration. Wei Xiaoyu (2021) believes that teachers' job satisfaction is a psychological concept, which is a general emotional feeling and view of teachers on their work, occupation, working conditions and conditions. Therefore, identifying the influencing factors of teachers' job satisfaction will not only play a positive role in teachers' quality, teachers' professional identity, but also play a positive role in students' academic achievements, students' education satisfaction,

etc. Improving teachers' job satisfaction is an important research content in improving teaching management. College teachers' job satisfaction and job burnout are affected by many factors. Foreign scholars divide it into content factors and environmental factors. The content factor can be regarded as an incentive factor in the two factor theory, while the environmental factor is more likely to be a health factor. Zeng Liping (2019) found that the influencing factors of college teachers' job satisfaction are composed of six dimensions: organizational management, work ecology, individual characteristics, emotional perception, value realization and external environment. Yan Xiaoyong (2017) divided the influencing factors into four categories: social factors, school factors, professional factors and personal factors. Social factors belong to the macro level, including economic development, political measures, government guarantees, industry environment, cultural atmosphere, etc. The contradiction between the high expectation of teachers and the unmatched salary level will bring great challenges to improve teachers' job satisfaction and alleviate job burnout. Campus environment, organizational structure, organizational cognition, material resources investment and organizational support, these factors are effective ways for schools to improve teachers' job satisfaction and reduce their job burnout. Teachers are more likely to perceive the promoting role of school organizations, but the hindering role is more influential. From the perspective of profession, compared with other professions, the position of teacher has its particularity. It requires teachers not only to teach, but also to educate people. The objects of teaching are full of vitality and diversity. Li Simeng (2021) research shows that teachers' personality characteristics affect their job satisfaction and job burnout from the individual root, and personal factors are deep-seated influencing factors that are generally difficult to change. Gao Luan (2015) proposed that the emotional exhaustion of college teachers stems from moral kidnapping, and their personality disintegration is linked to repetitive meaningless work. The sense of worthlessness caused by the loss of dignity makes them appear to be burnout. Pei Li (2020) constructed a multi-level data model to study the job satisfaction of teachers in Shanghai, Japan, Singapore and South Korea in East Asia and its influencing factors. The results show that teachers' effective professional development and teacher cooperation have a significant positive predictive effect on teachers' job satisfaction; The atmosphere of mutual respect has a significant positive predictive effect on teachers' job satisfaction. Designing effective professional development activities, carrying out various forms of teacher cooperation and creating a mutually respectful interpersonal atmosphere are the ways to improve teachers' job satisfaction.

The research on teachers' job satisfaction should be based on the social, historical and cultural background of our country and the requirements of economic and cultural development. Due to different cultural backgrounds, the research conclusions drawn from foreign methods cannot completely and objectively represent the domestic status quo. At present, most of the researches on the satisfaction of college teachers in China do not distinguish the types of schools, and there are few evaluations specifically for medical college teachers. The professional characteristics of medical college teachers in China are very special. A large number of them are part-time teachers. In addition to teaching in medical colleges as teachers, they also work as doctors in hospitals affiliated to medical colleges. The dual profession of teachers in medical colleges and universities is produced under the special national conditions of China. We need to study it specifically, in order to guide schools to better implement management and serve teachers' teaching development. Only by understanding what teachers are satisfied with and dissatisfied with, can we provide a scientific basis for solving practical problems such as low enthusiasm and burnout of some teachers, and can we guarantee the establishment of a high-quality, dedicated and stable teaching team. At the same time, it is also conducive to the education administrative department to formulate relevant policies and guidelines to effectively solve the problem of teacher loss and low work enthusiasm. How to enhance the sense of happiness of medical college teachers, improve employee satisfaction and reduce job burnout has become the first problem to be solved. This study investigated teachers in some medical colleges in southeast China to understand their current situation of job satisfaction and job burnout, explore the influencing factors of teachers' job satisfaction and job burnout, and provide a theoretical basis for the rational development of human resources in medical colleges and provide ways to solve practical problems.

2.METHOD

2.1Participants

In this study, 451 teachers came from well-known medical colleges and universities in 17 provinces in southeast China (Guangxi, Guangdong, Hunan, Hubei, Sichuan, Yunnan, Zhejiang, Jiangxi, Henan, Hebei, Jiangsu, Anhui, Guizhou, Jilin, Liaoning, Fujian, Shandong) (Figure 1).



Figure 1 Participating provinces

Table 1 shows the demographic statistics of the respondents, namely, Gender, Age, Marital status, Experience in Teaching, Educational Background, Title, Teaching Majors, Professional development and training, and Scope of occurrence. 40.6% of the respondents were male and 59.4% were female. 16.4% were aged 20-25; 26-30 accounts for 24.2%; 47.9% were 31 to 40 years old; 41-50 years old accounting for 8%; The age of 51-60 accounts for 3.5%. Unmarried accounted for 44.6%, married 51.9% and divorced 3.5%. According to the statistics of teaching experience, 28.6% of them are under 2 years; 29.7% in 2-5 years; 23.4% in 6-10 years; 12% from 2011 to 2020; Over 21 years accounted for 6.7%. Associate degree accounts for 2.2%; Bachelor's degree you accounted for 31.0%; Master's degree accounted for 51.2%; Doctorate accounts for 15.5%. Teaching assistant accounted for 33.3%; The proportion of lecturer is 41.7%; 16.2% of the associated professors; Professionals account for 8.9%. Clinical medicine accounted for 34.6%; Stomatology accounted for 26.6%; Nursing accounts for 11.5%; Pharmacy accounts for 12.4%; public health accounted for 14.9%. No training accounted for 23.1%; 55.4% had participated in short-term training; 14.6% went to other domestic universities for further study; Visits abroad accounted for 6.9%. Full time teachers accounted for 26.8%, and part-time teachers (both teachers and doctors) accounted for 73.2% (Table 1).

Table 1. General Demographic Statistics

Demographics	Option	n	%
Gender:	Male	183	40.6
	Female	268	59.4
Age (years):	20-25	74	16.4
	26-30	104	24.2
	31-40	216	47.9
	41-50	36	8.0
	51-60	16	3.5
	Marital status:	unmarried	201
married		234	51.9
divorce		16	3.5
Experience in Teaching:	less than 2 y	129	28.6
	2-5 y	134	29.7
	6-10 y	104	23.4
	11-20 y	54	12.0
	more than 21 y	30	6.7
Educational Background:	Associate	10	2.2
	Bachelor	140	31.0
	Master	231	51.2
	Doctorate	70	15.5
Title/Rank/Position:	teaching assistant	150	33.3
	lecturer	188	41.7
	associate professor	73	16.2
	Professor	40	8.9
Teaching Specialization/Majors:	clinical medicine	156	34.6
	Stomatology	120	26.6
	nursing	52	11.5
	pharmacy	56	12.4
	public health	67	14.9
Professional development and training	no training	104	23.1
	short-term	250	55.4
	visiting scholars domestic	66	14.6
	visiting scholars abroad	31	6.9
Scope of occupation	teaching profession	121	26.8
	dual occupation of teacher and doctor	330	73.2
	Total	451	100.0

2.2 Data Collection Instruments

Job satisfaction scale. Jiang Qian Educators Satisfaction Questionnaire (JQ-ESQ). The JQ-ESQ scale was designed by the author of this research group, Jian QIAN. The scale includes 8 dimensions and 32 topics. The eight dimensions are: Policy/ies, Tasks assignment and implementation, Management supervision, Collaboration/Compliance/employees, Working environment, Personal relationship, Sense of achievement and social status, Professional Development and Training. The advantage of JQ-ESQ is that it completely measures the integrity and dimensions of job satisfaction. The disadvantage is that there are a little more questions, and whether the subjects are patient and careful enough to complete 32 questions. These items are closed questions. The 5-point scoring method of Likert scale was used to score according to satisfaction. The project is divided into 5 options, with

scores of 5, 4, 3, 2 and 1 respectively. 1=very dissatisfied, 2=dissatisfied; 3=it is impossible to determine whether it is satisfied; 4=satisfied; 5=Very satisfied. The higher the score, the higher the degree of satisfaction, and vice versa.

2.3. Reliability and validity analysis

2.3.1 Reliability analysis

We used spss 23.0 to analyze relevant data and verified the reliability of the Job Satisfaction Scale (JQ-ESQ). The results are shown in Table 2 .

Table 2 Reliability Analysis of JQ-ESQ

Job satisfaction Cronbach's α	dimension	dimension Cronbach's α	Item	Cronbach's α if Item Deleted	
0.988	Policy	0.936	JS1	0.918	
			JS2	0.911	
			JS3	0.906	
			JS4	0.930	
	Tasks assignment and implementation;	0.947		JS5	0.938
				JS6	0.933
				JS7	0.912
				JS8	0.938
	Management supervision;	0.955		JS9	0.936
				JS10	0.941
				JS11	0.944
				JS12	0.944
	Remuneration/Compensation /incentives;	0.963		JS13	0.946
				JS14	0.950
				JS15	0.951
				JS16	0.956
	Working environment	0.940		JS17	0.921
				JS18	0.910
				JS19	0.932
				JS20	0.925
	Interpersonal relationship	0.942		JS21	0.919
				JS22	0.914
				JS23	0.932
				JS24	0.929
	Sense of achievement and social status	0.957		JS25	0.947
				JS26	0.943
				JS27	0.937
				JS28	0.945
	Professional Development and Training	0.964		JS29	0.958
				JS30	0.951
				JS31	0.948
				JS32	0.955

The reliability analysis of JIANG QIAN Educators Satisfaction Questionnaire (JQ-ESQ) shows that the overall reliability of the job satisfaction scale Cronbach's α The measurement result is 0.988, greater than 0.9, which means the reliability of the table is excellent. Cronbach's of 8 dimensions, including policy, tasks assignment and implementation, management supervision, collaboration/compliance/institutions, working environment, interpersonal relationship, sense of achievement and social status, professional development and training α The measurement results were 0.936, 0.947, 0.955, 0.963, 0.940, 0.942, 0.957, 0.962, which were greater than 0.9, indicating that JQ-ESQ's overall indicators and various dimension measurement indicators had high internal consistency reliability.

2.3.2 Validity analysis

We used spss 23.0 to analyze relevant data and verify its validity. The results are shown in Table 3

Table 3 Validity analysis of JQ-ESQ

KMO and Bartlett's Test		
Kaiser-Meyer-olkin Measure of Sampling Adequacy		0.971
Bartlett's Test of Sphericity	Approx. Chi-Square	21902.511
	df	496
	Sig.	0.00

According to the relevant data of KMO and Bartlett's Test, it can be clearly understood that the Kaiser Meyer olkin Measure of Sampling Adequacy of JQ-ESQ is 0.971, greater than 0.8, indicating that the validity of the table is good. According to Bartlett's Test of Sphericity, the significant sig values of the JQ-ESQ questionnaire are 0.000, less than 0.001. After testing, it is concluded that the variables in the questionnaire are significantly correlated. Based on the above contents, the data of the study is reliable, and the validity of the two questionnaires selected this time is good. In addition, experts in the field of pedagogy and psychology were consulted for validation in this study to ensure the validity of the questionnaire.

3.RESULTS

3.1 Descriptive analysis of the survey results of job satisfaction of medical college teachers

Table4. Descriptive statistics of job satisfaction

	N	Min	Max	Mean	Std.
Job satisfaction	45	1.00	5.00	3.8516	.73058
Policy	45	1.00	5.00	3.7761	.84048
Tasks assignment and implementation	45	1.00	5.00	3.8736	.80110
Management supervision	45	1.00	5.00	3.8509	.79935
Remuneration/Compensation /incentives	45	1.00	5.00	3.6558	.89535
Working environment	45	1.00	5.00	3.8853	.76703
Interpersonal relationship	45	1.00	5.00	4.0310	.69293
Sense of achievement and social status	45	1.00	5.00	3.8969	.75104
Professional Development and Training	45	1.00	5.00	3.8437	.79876
Valid N (listwise)	45				

The descriptive statistical analysis results of the job satisfaction of medical college teachers show that the job satisfaction score is 3.85, and the overall satisfaction is average (Table 6). The highest score of each dimension is Interpersonal Relationship, with an average score of 4.03, which is the only one among the dimensions to reach "Satisfied". Other dimensions, such as the average score of Policy 3.78, the average score of Tasks assignment and implementation 3.87, the average score of Management supervision 3.85, the average score of Conservation/Compliance/Entities 3.66, the average score of Working environment 3.89, the average score of Sense of achievement and social status 3.90, and the average score of Professional Development and Training 3.84.

The survey shows that the overall satisfaction of medical schoolteachers is not so great. The satisfaction of the Policy dimension of medical college teachers is average. This is because the curriculum arrangement of medical college teachers has certain particularity, each subject is both cross and independent of each other. As for teachers, they need to have a grasp of the overall medical framework, and they need to be specialized in the major course they teach. That is to say, the teaching scope of medical college teachers has certain limitations and irreplaceable, even some similar professional teachers cannot replace his or her teaching. Therefore, in the course arrangement, teachers of some majors will undertake more course arrangement, because teachers of other majors cannot teach for them. As for the teaching evaluation system, although there are many teaching specialties, the teaching evaluation standards of medical colleges are unique and not adapted to local conditions according to the characteristics of relevant disciplines. The professional characteristics of medical teachers in China are also very special. Most of them are both teachers and doctors at the same time. However, for the performance appraisal system, the school does not take these particularities into full consideration. At present, most medical schools' performance evaluation in teaching and medical care is calculated separately. This will cause some problems, for example, a professional teacher, in clinical return more, teaching to get less return, so he does not want to do a good job to teach, rather than spend more time in the medical field. On the other hand, teachers in a different specialty may prefer to attend classes because the teaching performance is better. And this phenomenon will not only appear in individuals, but also become the status quo of the whole industry in some professions. Therefore, how to formulate reasonable teaching and clinical performance system is still a problem to be solved in Chinese medical colleges and universities. In terms of the leave system, medical college teachers do not have summer and winter vacations, which is different from other types of universities in China. When the school opens, the educators in the medical school are not only teachers, but also doctors in the hospital affiliated to the school. They need to complete the teaching and medical tasks. When school is out, they have no teaching duties, but they still have medical duties and take significantly less time off than teachers at other institutions. Therefore, the satisfaction of medical college teachers in the dimension of policy is average.

The satisfaction of the Tasks assignment and implementation dimension of the medical college teachers is average. The number of tasks to be undertaken by teachers in medical colleges and universities is relatively large. Firstly, they need to participate in the teaching of medical theories. At the same time, medical students need more clinical practice, the so-called "seeing is believing, hearing is false", medical college teachers also undertake the task of clinical practice teaching. When asked if they are good at their job, respondents gave different answers. Because some people are born fit for learning; Others, however, may be better suited for clinical surgery. However, the requirement of proofreading teachers in Chinese medical schools is to be able to do both, which is obviously not reasonable, so some teachers may be doing the job they are not good at. There is also an

imbalance in the division of tasks, with young teachers more often appointed to the front lines of teaching and health care, while experts and professors are more often the face of the organization. There is also a lack of teamwork. Due to the relative independence of medical specialties, teachers of different specialties seldom cooperate with each other, and most teachers give independent lessons. Therefore, in terms of Tasks assignment and implementation, the job satisfaction of medical schoolteachers is not very high, which indicates that it is necessary to assign more reasonable tasks and appropriate amount of work to medical schoolteachers, let them do the work they are good at, and promote their teamwork.

The satisfaction of Management supervision dimension of medical college teachers is not good. The respondents believe that the management of daily affairs in medical colleges is not efficient and standardized. When dealing with problems, it is often necessary to go through a lot of procedures to get authorization, and the departments will also pass the buck to each other because of the problem of management authority, resulting in the smooth development of the work. Some subjects also reported that the school treated the rewards fairly, while the punishment was often biased. When dealing with emergencies, the departments of medical colleges are not decisive enough to deal with them quickly. Therefore, in the dimension of Management supervision, the job satisfaction of teachers in the medical school is general, indicating that daily management should be improved, rewards and punishments should be dealt with reasonably, and they can cope with emergencies.

Medical colleges and universities teachers' Remuneration/Compensation incentives dimension of satisfaction. The income of teachers in Chinese medical colleges comes from two aspects: salary and performance. Full-time teachers are only responsible for the classes, and their pay base is higher, and their performance ratio is lower. Their income is more stable, and the income gap between teachers is not big, but at the same time, their personal ability is hard to show in the income. Dual-career employees need to participate in teaching and medical activities at the same time. Their salary base is low, and their main income comes from performance (medical work accounts for a large part). Their pay is linked to income, which better reflects the value of labor; But at the same time, it will lead to a wide income gap between employees. Compared with other professions, the income of medical schoolteachers is relatively high, but they do not give higher scores to this project in the questionnaire statistics. This may be because respondents were not just comparing their absolute income, but also measuring whether their efforts matched their income and whether the risks they faced matched their income. That is, they may think that the effort is high, but the return is relatively low. In addition, there is a huge gap between the income level of Chinese medical schoolteachers and that of developed countries such as Europe and America, which may also be the reason for their low satisfaction with salary.

The Working environment dimension is not satisfactory. Some medical schoolteachers expressed concern about the existing health and safety environment, such as violence in some schools, and the risks that medical students may encounter during their practice. The current approach of most medical schools is to meet problems and deal with them, and prevention plans are not perfect. Teachers also expressed some dissatisfaction with the teaching equipment and working conditions provided by the school, such as the construction of hardware and software of the school is not in line with international standards. Some teachers, especially young ones without much experience, said that the research environment was mediocre and difficult to get started. The present situation of scientific research environment in Chinese medical colleges and universities is that the equipment of public laboratories is often backward. Most of the university's advanced laboratories and research equipment are controlled by a few research teams and are not open to other teachers. In addition, some medical schoolteachers said that although they are in the medical teaching industry, when they seek medical treatment, there is no obvious preferential treatment. That is, the affiliated hospitals of the major medical colleges do not provide many policy benefits to their faculty and staff. In summary, the satisfaction of medical college teachers to the working environment is general.

Interpersonal relationship is the only dimension with a score of more than 4, indicating that teachers in medical schools are satisfied with interpersonal communication even in today's complex medical environment. When interacting with colleagues, they show more mutual trust. In getting along with leaders, they are good at communication. The relationship between teachers and students in medical colleges is also different from that in other colleges. They have closer contact with students. Especially when students enter the clinical practice stage, their relationship is not limited to books, but into life and work. The close clinical teaching life makes them closer to the ancient "mentoring" rather than "teacher-student relationship". Medical college students often have deep feelings for their teachers, which also promotes the medical college teachers to get more satisfactory answers in the evaluation of interpersonal relationship.

The sense of achievement and social status dimensions of satisfaction were average. Some respondents said their bosses rarely praised them for their work. This is related to the ancient Chinese habit of evaluation, when employees report their work to their leaders, most of the time they get a reply of "OK" instead of "good". Especially young medical schoolteachers, they really hope to get the praise and encouragement from the leaders, and they also care about the school's attention to their contributions, and they have a stronger desire for honor. Senior professors also had better experiences in terms of social status and job fulfillment, which younger teachers showed some dissatisfaction with. Therefore, in terms of Sense of achievement and social status, satisfaction is not so great.

Satisfaction with Professional Development and Training is average. In fact, proofreading professional training is mandatory in China's major medical schools, especially in the professional title promotion must participate in high quality and longtime of advanced study. However, for out-of-town training opportunities, most of the time are contacted and searched by teachers themselves. Therefore, some interviewees think that the training channels and methods provided by the school are unreasonable and inefficient. They think that the school only formulates the conditions of professional title evaluation but does not solve the way of outside training. Therefore, the degree of satisfaction in Professional Development and Training is average

Therefore, the overall satisfaction of medical schoolteachers is normal. In addition to Interpersonal relationship dimension, the satisfaction of other dimensions is also normal.

3.2 Analysis of differences among medical college teachers

3.2.1 Gender difference analysis of medical college teachers

The results of independent sample T test of gender show (Table 5): The overall job satisfaction T value of medical college teachers was 2.81, $P=0.04$; The t-value of the policy dimension is 3.74, $p=0.00$; The T value of the Tasks assignment and implementation dimension is 3.67, $P=0.01$; The T value of the management supervision dimension is 0.12, $P=0.26$; The T value of the Regeneration/Dependency/instances dimension is 1.42, $P=0.83$; The T value of the Working environment dimension is 0.09, $P=0.67$; The T value of the Interpersonal Relationship dimension is 0.87, $P=0.30$; The T value of the Sense of achievement and social status dimension is 0.49, $P=0.52$; The T value of the Professional Development and Training dimension is 4.16, $P=0.08$. It shows that there are gender differences in the overall job satisfaction, policy dimension, tasks assignment and implementation dimension of the respondents, and women's satisfaction is significantly lower than men's.

Table 5. Gender difference analysis of medical college teachers

	20-25Y	26-30Y	31-40Y	41-50Y	51-60Y	F	P
Job satisfaction	3.67±0.73	3.58±0.57	3.91±0.66	4.04±0.78	3.99±0.36	7.07	0.00
Policy	3.70±0.85	3.26±0.71	3.80±0.77	4.04±0.86	3.94±0.46	6.95	0.00
Tasks assignment and implementation	3.86±0.73	3.51±0.68	3.80±0.82	4.10±0.82	4.22±3.40	5.44	0.00
Management supervision	3.42±0.62	3.76±0.81	3.93±0.74	4.10±0.80	4.00±0.67	6.78	0.00
Remuneration/Compensation /incentives	3.22±0.82	3.70±0.90	3.55±0.91	3.72±0.33	3.97±0.84	6.63	0.00
Working environment	3.80±0.82	3.49±0.52	3.99±0.61	4.12±0.80	3.94±0.28	6.52	0.00
Interpersonal relationship	3.97±0.68	3.68±0.61	4.14±0.62	4.19±0.78	4.00±0.45	4.69	0.00
Sense of achievement and social status	3.59±0.65	3.81±0.74	4.01±0.67	3.97±0.46	4.09±0.83	4.75	0.00
Professional Development and Training	3.73±0.80	3.42±0.70	4.03±0.66	4.10±0.84	3.75±0.65	8.01	0.00

3.2.2 Analysis of age difference of medical college teachers

The results of one-way ANOVA of age showed that (Table 5): The overall F value of job satisfaction is 7.07, $P=0.00$; The F value of the policy dimension is 6.95, $P=0.00$; The F value of the Tasks assignment and implementation dimension is 5.44, $P=0.00$; The F value of the management supervision dimension is 6.78, $P=0.00$; The F value of the dimension of Remuneration/Dependency/instances is 6.63, $P=0.00$; The F value of the working environment dimension is 6.52, $P=0.00$; The F value of the interpersonal relationship dimension is 4.69, $P=0.00$; The F value of the Sense of achievement and social status dimension is 4.75, $P=0.00$; The F value of the Professional Development and Training dimension is 8.01, $P=0.00$. $P<0.05$ for job satisfaction and each dimension, indicating that there are age differences in job satisfaction and each dimension of the respondents, and the job satisfaction of young teachers is lower than that of older teachers.

Table 6. Difference analysis of Age among medical college teachers

	Male	Female	T	P
Job satisfaction	3.89±0.75	2.99±0.72	2.81	0.04
Policy	3.81±0.82	2.45±0.86	3.74	0.00
Tasks assignment and implementation	3.90±0.86	2.55±0.76	3.67	0.01
Management supervision	3.86±0.85	3.85±0.77	0.12	0.26
Remuneration/Compensation /incentives	3.73±0.88	3.60±0.90	1.42	0.83
Working environment	3.89±0.78	3.88±0.76	0.09	0.67
Interpersonal relationship	4.07±0.75	4.00±0.65	0.87	0.30
Sense of achievement and social status	3.91±0.78	3.88±0.73	0.49	0.52
Professional Development and Training	3.91±0.77	3.80±0.82	1.46	0.08

3.2.3 Difference analysis of Marital status of medical college teachers

The results of one-way ANOVA of Marital status show that (Table 6): the overall F value of job satisfaction is 1.58, $P=0.20$; The F value of the policy dimension is 1.69, $P=0.11$; The F value of the Tasks assignment and implementation dimension is 2.10, $P=0.06$; The F value of the management supervision dimension is 1.73, $P=0.12$; The F value of the Regeneration/Dependency/instances dimension is 0.61, $P=0.53$; The F value of the Working environment dimension is 1.90, $P=0.08$; The F value of the interpersonal relationship dimension is 1.46, $P=0.33$; The F value of the Sense of achievement and social status dimension is 0.72, $P=0.43$; The F value of the Professional Development and Training dimension is 0.22, $P=1.09$. The P of job satisfaction and each dimension is greater than 0.05, indicating that there is no Marital status difference between the respondents' job satisfaction and each dimension.

Table 7. Difference analysis of Marital status of medical college teachers

	unmarried	married	divorce	F	P
Job satisfaction	4.08 ± 0.54	3.88 ± 0.69	4.00 ± 0.75	1.58	0.20
Policy	4.18 ± 0.70	3.93 ± 0.80	3.90 ± 0.86	1.69	0.11
Tasks assignment and implementation	4.01 ± 0.81	3.77 ± 0.75	3.96 ± 0.84	2.10	0.06
Management supervision	4.11 ± 0.69	3.99 ± 0.78	4.00 ± 0.79	1.73	0.12
Remuneration/Compensation /incentives	3.98 ± 0.60	3.86 ± 0.87	3.84 ± 0.89	0.61	0.53
Working environment	4.12 ± 0.51	3.92 ± 0.76	4.05 ± 0.75	1.90	0.08
Interpersonal relationship	3.98 ± 0.47	3.90 ± 0.67	4.16 ± 0.71	1.46	0.33
Sense of achievement and social status	3.81 ± 0.41	3.75 ± 0.72	4.03 ± 0.76	0.72	0.43
Professional Development and Training	4.06 ± 0.69	3.96 ± 0.76	4.04 ± 0.80	0.22	1.09

3.2.4 Difference analysis of medical college teachers' experience in teaching

The results of one-way ANOVA of Experience in Teaching show that (Table 8): the overall F value of job satisfaction is 5.39, P=0.00; The F value of the policy dimension is 4.49, P=0.00; The F value of the Tasks assignment and implementation dimension is 3.51, P=0.01; The F value of the Management supervision dimension is 5.87, P=0.00; The F value of the Regeneration/Dependency/instances dimension is 5.44, P=0.00; The F value of the Working environment dimension is 6.63, P=0.00; The F value of the interpersonal relationship dimension is 3.21, P=0.01; The F value of the Sense of achievement and social status dimension is 3.15, P=0.01; The F value of the Professional Development and Training dimension is 6.43, P=0.00. P<0.05 for job satisfaction and each dimension, indicating that the respondents' job satisfaction and each dimension have experience in teaching differences. Teachers who have worked for 11-20 years have the highest satisfaction, while teachers who have worked for 2-5 years have the lowest satisfaction.

Table 8. Difference Analysis of Experience in Teaching of Medical College Teachers

	less 2 y	2-5 y	6-10 y	11-20 y	more 21 y	F	P
Job satisfaction	3.72 ± 0.83	3.60 ± 0.54	3.77 ± 0.67	4.02 ± 0.74	3.88 ± 0.67	5.39	0.00
Policy	3.61 ± 0.74	3.58 ± 0.93	3.68 ± 0.78	3.97 ± 0.82	3.70 ± 0.92	4.49	0.00
Tasks assignment and implementation	4.02 ± 0.79	3.73 ± 0.83	3.79 ± 0.84	4.03 ± 0.77	3.69 ± 0.64	3.51	0.01
Management supervision	3.76 ± 0.82	3.51 ± 0.68	3.75 ± 0.79	4.03 ± 0.79	4.00 ± 0.75	5.87	0.00
Remuneration/Compensation /incentives	3.86 ± 0.85	3.48 ± 1.03	3.55 ± 0.93	3.37 ± 0.69	3.78 ± 0.56	5.44	0.00
Working environment	3.75 ± 0.87	3.56 ± 0.60	3.82 ± 0.76	4.08 ± 0.73	3.83 ± 0.64	6.63	0.00
Interpersonal relationship	3.94 ± 0.79	3.80 ± 0.55	4.03 ± 0.59	4.14 ± 0.72	4.00 ± 0.62	3.21	0.01
Sense of achievement and social status	3.69 ± 0.55	3.80 ± 0.85	3.83 ± 0.70	3.98 ± 0.69	4.03 ± 0.77	3.15	0.01
Professional Development and Training	3.75 ± 0.87	3.57 ± 0.57	3.70 ± 0.78	4.06 ± 0.77	3.70 ± 0.92	6.43	0.00

3.2.5 Difference analysis of educational background of medical college teachers

The results of one-way ANOVA of Educational Background show that (Table 9): the overall F value of Job satisfaction is 5.89, P=0.00; The F value of the policy dimension is 7.66, P=0.00; The F value of the Tasks assignment and implementation dimension is 5.69, P=0.00; The F value of the management supervision dimension is 7.76, P=0.00; The F value of the Regeneration/Dependency/instances dimension is 3.84, P=0.01; The F value of the Working environment dimension is 5.50, P=0.00; The F value of the interpersonal relationship dimension is 2.78, P=0.04; The F value of the Sense of achievement and social status dimension is 4.30, P=0.00; The F value of the Professional Development and Training dimension is 6.00, P=0.00. P<0.05 for Job satisfaction and each dimension, indicating that there is an educational background difference between the respondents' Job satisfaction and each dimension. The satisfaction of the master is the highest, while that of the doctor is the lowest.

Table 9. Difference Analysis of Educational Background of Medical College Teachers

	Associate degree	Bachelor's degree	Master's degree	Doctorate	F	P
Job satisfaction	3.92±0.74	3.80±0.75	4.62±0.45	3.67±0.55	5.89	0.00
Policy	3.84±0.79	3.74±0.89	4.80±0.42	3.49±0.65	7.66	0.00
Tasks assignment and implementation	3.90±0.82	3.86±0.80	4.80±0.42	3.68±0.67	5.69	0.00
Management supervision	3.93±0.77	3.80±0.83	4.80±0.42	3.60±0.64	7.76	0.00
Remuneration/Compensation /incentives	3.78±0.83	3.53±0.98	4.20±0.79	3.62±0.67	3.84	0.01
Working environment	3.98±0.77	3.81±0.79	4.60±0.52	3.71±0.60	5.50	0.00
Interpersonal relationship	4.05±0.74	4.00±0.68	4.60±0.52	3.94±0.52	2.78	0.04
Sense of achievement and social status	3.96±0.77	3.86±0.75	4.55±0.59	3.71±0.65	4.30	0.00
Professional Development and Training	3.94±0.79	3.79±0.82	4.60±0.52	3.59±0.67	6.00	0.00

3.2.6 Difference analysis of title/rank/position of medical college teachers

The results of one-way ANOVA of Title/Rank/Position show that (Table 10): the overall F value of Job satisfaction is 2.71, P=0.05; The F value of the policy dimension is 2.76, P=0.04; The F value of the Tasks assignment and implementation dimension is 1.88, P=0.13; The F value of the management supervision dimension is 2.81, P=0.04; The F value of the Remuneration/Dependency/instances dimension is 1.26, P=0.29; The F value of the Working environment dimension is 3.57, P=0.01; The F value of the interpersonal relationship dimension is 1.97, P=0.12; The F value of the Sense of achievement and social status dimension is 2.46, P=0.05; The F value of the Professional Development and Training dimension is 5.70, P=0.00. $P \leq 0.05$ for job satisfaction and policy, management supervision, working environment, professional development and training dimensions, indicating that there is a difference in title/rank/position between the overall satisfaction of respondents and these dimensions. The data shows that the overall job satisfaction, policy, management supervision, working environment, sense of achievement and social status, and professional development and training of the interviewees with professional titles are the highest.

Table 10. Difference analysis of title/rank/position of medical college teachers

	teaching assistant	lecturer	associate professor	Professor	F	P
Job satisfaction	3.89±0.36	3.71±0.67	3.77±0.72	4.01±0.76	2.71	0.05
Policy	3.86±0.85	3.60±0.82	3.72±0.85	3.84±0.52	2.76	0.04
Tasks assignment and implementation	3.93±0.83	3.78±0.79	3.82±0.77	4.19±0.46	1.88	0.13
Management supervision	3.84±0.71	3.77±0.77	3.69±0.79	3.96±0.81	2.81	0.04
Remuneration/Compensation /incentives	3.74±0.93	3.59±0.90	3.55±0.84	3.53±0.44	1.26	0.29
Working environment	3.94±0.17	3.80±0.77	3.70±0.78	3.99±0.77	3.57	0.01
Interpersonal relationship	4.10±0.75	3.93±0.68	3.99±0.56	4.06±0.42	1.97	0.12
Sense of achievement and social status	3.77±0.67	3.81±0.76	3.94±0.50	3.99±0.78	2.46	0.05
Professional Development and Training	3.72±0.81	3.62±0.72	3.78±0.61	3.99±0.81	5.70	0.00

3.2.7 Difference analysis of scope of practice among medical college teachers

The results of one-way ANOVA of Scope of Practice show that (Table 11) the overall job satisfaction T value of medical college teachers is 2.52, P=0.33; The t value of the policy dimension is 3.40, p=0.13; The T value of the Tasks assignment and implementation dimension is 0.17, P=0.10; The T value of the management supervision dimension is 1.90, P=0.40; The T value of the Regeneration/Dependency/instances dimension is 3.53, P=0.99; The T value of the Working environment dimension is 2.03, P=0.65; The T value of the interpersonal relationship dimension is 1.73, P=0.19; The T value of the Sense of achievement and social status dimension is 2.27, P=0.11; The T value of the Professional Development and Training dimension is 2.26, P=0.57; The P value of job satisfaction and each dimension is greater than 0.05, indicating that there is no scope of practice difference between the respondents' job satisfaction and each dimension.

Table 11. Difference analysis of scope of practice among medical college teachers

	full-time teacher	Dual roles of educator and doctor	T	P
Job satisfaction	3.99 ± 0.74	3.80 ± 0.72	2.52	0.33
Policy	3.99 ± 0.79	3.70 ± 0.79	3.40	0.13
Tasks assignment and implementation	3.95 ± 0.85	3.85 ± 0.78	1.17	0.10
Management supervision	3.97 ± 0.76	3.81 ± 0.81	1.90	0.40
Remuneration/Compensation /incentives	3.90 ± 0.84	3.57 ± 0.90	3.53	0.99
Working environment	4.00 ± 0.75	3.84 ± 0.77	2.03	0.65
Interpersonal relationship	4.12 ± 0.68	4.00 ± 0.70	1.73	0.19
Sense of achievement and social status	4.02 ± 0.80	3.85 ± 0.73	2.27	0.11
Professional Development and Training	3.89 ± 0.83	3.79 ± 0.78	2.26	0.57

4.DISCUSSION

From the measurement data, we can see that there are gender differences in the overall job satisfaction of medical college teachers, especially in the policy dimension and the tasks assignment and implementation dimension, women are significantly lower than men. The reason for this result mainly comes from the dissatisfaction of female medical college teachers with the policy and tasks assignment and implementation, specifically the dissatisfaction with the performance appraisal system and the leave system, the number of work tasks, and the rational division of tasks. This is because a large part of teachers in medical colleges are part-time teachers, who also work as doctors in hospitals affiliated to colleges and universities. In addition to teaching in schools, hospitals and schools also set workload requirements for them. If the basic workload (such as the number of patients completed) cannot be reached, their performance income will be deducted accordingly. Female teachers in medical colleges and universities are likely to be burdened by the heavy workload given by the unit immediately after they return to work after taking maternity leave, so they are dissatisfied with the rationality of the leave system and work tasks.

There are obvious differences in the respondents' job satisfaction and each dimension in terms of age and teaching age, and the measurement results of teachers' age and teaching age are highly consistent. Among them, the respondents aged 41-50 (11-20 years of teaching experience) have the highest overall satisfaction. They also have the highest satisfaction in the dimensions of policy, management supervision, working environment, interpersonal relationship, professional development and training. This shows that after the age of 40, Chinese medical college teachers have gradually reached the peak of their careers, and can better respond to policies, adapt to the environment, and handle interpersonal relationships, As well as the completion of self training and development, both in teaching and clinical are becoming mature, able to cope with challenges in all aspects of work, so the satisfaction is high. The respondents aged 51-60 (with more than 21 years of teaching experience) also reported high job satisfaction, especially in the dimensions of Tasks assignment and implementation, recruitment/compliance/employees, Sense of achievement and social status. This shows that the older the teachers in medical colleges are, the more reasonable they can assign tasks, the higher their salary and welfare level, and the higher their social status. Therefore, the higher their satisfaction is. The lower age respondents had lower satisfaction, among which the overall satisfaction of 26-30 (2-5 years of teaching age) was the lowest, and scored the lowest in such dimensions as policy, tasks assignment and implementation, working environment, interpersonal relationship, professional development and training. This result may be that interviewees of this age group have become the backbone of college teachers, undertaking the main teaching tasks, giving consideration to the coordination between superiors and subordinates, and facing the problem of professional title promotion. They are changing from a novice teacher to a mature teacher. This process needs a running in period. They are the main force of medical college teachers and medical care, and they have undertaken the most tasks and pressures, and the corresponding rewards are not enough. The respondents aged 20-25 (with less than 2 years of teaching experience) scored the lowest in the dimensions of management supervision, rehabilitation/compliance/institutions, sense of achievement and social status. The result may be that these people are new teachers, many of whom have just graduated and have just become teachers from their student status. They are not well adapted to the task assignment, and their salaries and benefits are relatively poor, and their social status is not high.

The difference analysis of marriage shows that whether or not to marry does not affect the job satisfaction of medical college teachers. Although we designed the "divorce" option in the questionnaire, only 16 questionnaires were filled by "divorced" respondents, accounting for 3.5% of the total questionnaire. The reliability of the satisfaction measurement data of divorced people needs to be discussed.

The statistical results of Educational Background show that the satisfaction score of the people who have obtained the Doctorate degree is the lowest, and the satisfaction of the respondents of Master's degree is the highest. This result is different from our initial expectation. In the impression, the highly educated people have better treatment and opportunities, so their satisfaction seems to be higher. However, the actual measurement results are just the opposite. The group with the lowest satisfaction is the group with the doctorate. Then it may be that the doctoral group is under the pressure of themselves and the school at the same time. The university places high hopes on doctors and has high scientific research requirements for them, for example, they must be approved by the National Natural Science Foundation of China; The doctors have higher plans for themselves, and they are more sensitive to the school environment and treatment. Even though the existing policies and benefits are more biased towards high-level talents, they still feel some dissatisfaction. The most satisfied people are teachers with master's degrees, who are in a position of "less than the top, more than the bottom". Their salary and opportunities are much better than those of undergraduates and college graduates. They also have some opportunities to participate in teaching, medical care and scientific research. At the same time, the pressure from schools is less than that of teachers with doctorate degrees. Therefore, teachers with master's degree background are more satisfied in all aspects.

It can be seen from the difference analysis of title that the Professional has the highest satisfaction. In China's teaching and medical system, the influence of professional titles is particularly huge. Higher professional titles represent more preference from policies, greater proportion of performance benefits, better work and research environment, wider contacts and social status. Therefore, medical college teachers have some morbid ways to cope with the professional title evaluation. A large number of them plan their lives according to the professional title evaluation conditions, such as "completing several high score SCI papers", which goes against the original intention of the evaluation itself. However, when some teachers obtain the title of professor, it represents the completion of the path of professional title upgrading. They can spend more time in their favorite areas of work, rather than preparing promotion materials to complete tasks. The satisfaction with Professional Development and Training is the lowest for the Manufacturer. The reason for this result may be that in the professional title evaluation of Chinese colleges and universities, professional development and training in other higher institutions must be completed before upgrading to associate professional. However, the training requirements faced by teachers in medical schools are more strict. They need to go to other higher medical schools (affiliated hospitals) for 6-12 months before they are eligible to participate in the assessment of associated professors. How to choose a better university to study and complete the training, and how to handle the relationship between the training and the existing work, are the most vexing things for the educators. Teaching assistant is the least satisfied with Sense of achievement and social status. The main reason is that the induction time is short, the achievements are few, and the network has not been established.

The analysis of teachers' professional scope shows that the satisfaction of part-time teachers is lower than that of full-time teachers. Many of the teachers in medical colleges and universities in China are part-time teachers. Their salary and working environment are not only from the schools, but also related to the benefits of affiliated hospitals. In addition to completing the teaching tasks assigned by the school, part-time teachers are still working in the hospital. They need to face medical risks and participate in direct night classes. When the epidemic broke out, they took part in anti epidemic medical activities at the forefront. They cannot choose between teaching and medical treatment, but both must be coordinated. Therefore, although part-time teachers are better than full-time teachers in terms of income and treatment, their job satisfaction is not very high.

5.LIMITATIONS

The research site has limitations. Due to the limited ability of the researchers, they were unable to send questionnaires to the provinces in northwest China. Most of the 17 provinces selected in this study are in China's southeast coastal areas, which account for about half of China's land area, but they are all economically developed provinces. Northwest China (such as Tibet, Xinjiang, Inner Mongolia, etc.) has a small population, a large area, a relatively backward economy, and more difficult working conditions for teachers. Therefore, the research object in this study can only represent the medical college teachers in the relatively developed southeast region of China, and cannot represent the medical college teachers in China as a whole. The number of samples is limited. This study received 451 valid questionnaires, which is still too small compared with the number of teachers in Chinese medical colleges, which may lead to data deviation. The JQ-ESQ scale used in this study has high reliability and validity. However, the number of questions is 32, which is too large. The interviewees may not be patient and serious about answering each question.

6.CONCLUSION

The overall job satisfaction of medical college teachers is general, only in the dimension of interpersonal relationship; Women's job satisfaction is lower than men's; Young, less work experience, low title and lower job satisfaction; The job satisfaction of master degree is the highest, while that of doctor degree is the lowest; Marriage does not affect satisfaction; The satisfaction of part-time teachers is lower than that of full-time teachers. The leaders of medical colleges and universities should pay more attention to the needs of female teachers in terms of policies, task allocation, etc; For young and inexperienced teachers, we should improve their working environment, raise their salaries and provide more training opportunities; Make personalized policies for part-time teachers.

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