

# **A Study on the Influencing Factors of Job Satisfaction : A Case of Doctors in Township Hospital**

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**Abstract.** In this paper, factor analysis is the main research method what used to analyze the job satisfaction and explore the main factors that affect the job satisfaction of doctors in township hospitals. The results show that the overall income level is the main factor which is influenced the doctors' satisfaction in township hospitals. Therefore, the health authorities should take effective measures to improve the income level of township doctors and improve the income distribution system. Promoting the doctor in township hospitals to achieve personal development goals . Also, the township hospitals should achieve the long-term development goals .

## **Introduction**

Township hospitals are an important carrier of the basic medical service system and the public health service system .The doctors in township hospitals have played an important role in providing basic medical and health services, improving the quality of medical services and improving people's health. At the same time, improving the job satisfaction of doctors in township hospitals, building a perfect incentive mechanism, providing high quality and high level of medical services has become an important issue in the current medical and health system reform. In the first half of 2009, China began to implement the medical system reform .Therefore, how to effectively improve the enthusiasm of rural doctors become the key to the reform of primary health care (W.L.Ma,L.G.Lin,X.P.Mu and L.X.Tang, 2013)[1]. According to the theory of needs and the two - factor incentive theory, it can be seen that improving the job satisfaction of doctors in township hospitals can improve their work identity and improve the quality of medical service. The theories shows that physician job satisfaction will directly affect the quality and efficiency of the medical services it offers (Clark, Andrew E, Andrew J. Oswald, 1996)[2]. And physician job satisfaction is also an important factor influencing the turnover rate. Basic on the former research results, some scholars through field investigation found that up to 95.66% of doctors believe that the labor compensation does not match the labor, only 19.02% of the doctors on the current operating environment expressed satisfaction (Mai, Zhang, Fu, Liu, Zhou, 2013) [3]. Through the further analysis, it is found that the dissatisfaction of income is an important reason for the dissatisfaction of the work Y.F.Guo and S.X.Chen, 2006) [4], and the overall salary level is low, the pay fairness has become an important factor affecting the stability of the doctor team (X.Q.Zhang, Z.J.Wang and H.Y.Li, 2010) [5]. Therefore, based on the previous research, this paper analyzes the current job satisfaction evaluation of doctors in township hospitals by factor analysis, and explores the main

influencing factors of doctors' satisfaction in township hospitals. Based on the suggestions, to improve the township hospital doctor's job satisfaction, and promote the healthy development of health.

### **Job Satisfaction and Measurement of Doctors in Township Health Centers**

**Job satisfaction of doctors in township hospitals .** Job satisfaction is an attitude that an individual holds on his work and is influenced by personal factors and external environmental factors. Its essence is a cognitive attitude that is emotional On behalf of the staff on the work like or disgusted feelings (Y.M.Zhang, 2011)[6]. Hoppock believes that job satisfaction is the employee's psychological and physical aspects of the environmental factors to meet the feelings. Therefore, this study considers that the job satisfaction of doctors in township hospitals mainly refers to the satisfaction of doctors in the psychological and physical aspects of the work environment, management system and income level of the hospitals.

For the current research results, Robbins believes that challenging work, fair pay, supportive working environment and harmonious relationship are the main factors that affect employee job satisfaction, while Locke will be satisfied with the work. The dimensions of the degree are divided into two major aspects: working autonomy, work pressure, job expectation, personal values. At the same time, some scholars believe that the impact of the overall job satisfaction of the main factors are seven, namely, payroll, benefits, job characteristics, working conditions, leadership, colleagues and personal factors (W.Z Yu, 1996) [7]. However, the above research results can not effectively explain the current township hospitals do not work the reasons for the high satisfaction. Therefore, based on the above research, this paper describes the job satisfaction scale of the township health center doctors, which is needed to describe the job, the job satisfaction survey.

**Township Health Doctor 's Job Satisfaction Scale.** According to the above, this study actively draws on the existing research results, from the working conditions, leadership level, internal management system and payroll and other four dimensions to design research scale. Specifically, the township hospital doctors job satisfaction scale to remove the basic information survey, that is, gender, age, education, job status, etc., the scale content includes 13 variables. Variables related to: hospital building area satisfaction, technical title satisfaction hospital internal management satisfaction, quality of hospital leadership and management capacity satisfaction, health service title promotion standards and system satisfaction, health training system satisfaction, health The satisfaction degree of the hospital incentive mechanism, the satisfaction degree of the punishment mechanism of the hospital, the satisfaction level of the income level of the hospital, the satisfaction degree of the salary distribution of the hospital, the satisfaction of the salary performance of the hospital, the satisfaction degree of the allowance of the hospital, Status satisfaction, etc. a total of 13 indicators. At the same time, the satisfaction evaluation of the indicators using Likert 5 points score, each evaluation project is divided into "very dissatisfied", "less satisfied", "general", "more satisfied", "very satisfied". And assigned separately 1 point, 2 points, 3 points, 4 points, 5 points.

### **Research methods**

**Source.** Affected by the level of economic and social development, township hospitals doctors turnover rate is higher. At the same time, the township hospital doctors team preparation scale less. Therefore, the paper fully consider the actual situation of township hospitals and economic and social development level differences, in accordance with the principle of stratified sampling, Yongchuan District in Chongqing City, near the suburbs and remote town, a total of 15 township

hospitals were selected. In each hospital seven doctors were random selected .Finally, a total of 105 doctors. Basis on this , the selected doctors should conduct a questionnaire survey. In the end, 105 questionnaires were distributed in this survey, 105 valid questionnaires were retrieved and the effective rate was 100%.

**Analytical method.** Based on the quantitative survey data obtained, the data were sorted out, and the data results were analyzed and analyzed by spss18.0 software. Among them, the core idea of factor analysis is through the variables of the correlation coefficient matrix internal structure of the study, to explore the representative variables, in order to describe the correlation between the other variables. By analyzing the intrinsic relationship between the correlation matrices of multiple factor indices, the common factors of all the changes of the factors are extracted and the influence of each factor on the dependent variable is determined. This paper mainly uses the factor analysis method to actively explore the main influencing factors of doctors' satisfaction in township hospitals.

## Result

**Basic information.** As show in Table 1, among the 105 doctors, there are 60 male doctors and 45 female doctors. Aged 20-30 years old have 22 doctors, accounting for 21%. Aged 30-40 years old have 45 doctors, accounting for 42.9%. Aged 40-50 years old have 33 doctors, accounting for 31.4%. Aged 20-30 years old have 22 doctors, accounting for 21%. The age over 50 years old have 5 doctors, accounting for 4.8%. In terms of culture, there are 25 doctors received bachelor's degree, accounting for 23.8%.ther are 68 doctors received college degree, accounting for 64.8%.Also,12 doctors received college degree or below, accounting for 11.4%.The data shows that the overall level of Primary Hospital Doctors at the grassroots level need to be improved.

Table 1 Basic information

	Quantity	Percentage (%)
Gender		
Male	60	57.1
Female	45	42.9
Age		
20-30	22	21.0
30-40	45	42.9
40-50	33	31.4
50 以上	5	4.8
Education background		
Postgraduate	0	0
Bachelor degree	25	23.8
College specialist	68	64.8
Lower than the college level	12	11.4

**Reliability analysis.** Reliability refers to the degree to which data consistency or stability is measured. Consistency mainly reflects the relationship between the internal questions of the test, whether the subject of the test to measure the same content or characteristics. Stability refers to the use of a measurement tool such as the same questionnaire on the same group of subjects at different times on the repeated measurement of the reliable coefficient between the results. The study uses

the internal consistency of the study data. The results show that the Cronbach's alpha coefficient is 0.916, indicating that the data used in the study have good reliability (see Table 2).

Table 2 Reliability statistics

Cronbach's Alpha	Quantity
.916	13

**Exploratory factor analysis.** The first is Principal Component Factor Analysis. KMO and Bartlett test. As show in Table 3, Bartlett Sphere Test Results  $X^2 = 849.181$ ,  $P = 0.000$ . The result indicates that the correlation matrix is not a unit matrix and the factor analysis can be done. At the same time,  $KMO = 0.895$ . According to Kaiser, The KMO value is used to observe the correlation coefficient value and the partial correlation coefficient of an index, the closer the value of 1 indicates that these variables for the effect of factor analysis is better. So we can see that this data is suitable for factor analysis.

Table 3 KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.897
Bartlett's Test Of Sphericity	Approx. Chi-Square	833.896
	df	78
	Sig.	.000

**Factor to explain the total variance of the original variable.** As show in Table4, this is the list of the total variance in the original variable in the factor analysis. The table consists of three parts, which are the variance interpretation of the initial factor solution, the variance interpretation of the extraction factor solution and the variance interpretation of the solution of the rotation factor. The characteristic value of factor 1 is 6.745, the variance contribution rate is 51.883%, the characteristic value of factor 2 is 1.174, the variance contribution rate is 9.030%, the characteristic value of factor 3 is the characteristic value of factor 3, the characteristic value is more than 1, Is 1.094, the variance contribution rate is 8.414%, the cumulative contribution rate of the three principal component factors is 69.328%. The result shows that the three principal component factors can explain 69.328% of the total variable information, with a strong ability to explain.

Table4 Factor Analysis of Total Variance Variance

factor	Initial eigenvalue			Extract squares and load			Rotate squares and load		
				Cumulative			Cumulative		
	Variance contribution rate			Variance contribution rate			Variance contribution rate		
	Eigenvalues	on rate (%)	Cumulative contribution rate %	Eigenvalues	on rate (%)	on rate (%)	Eigenvalues	on rate (%)	on rate (%)
1	6.745	51.883	51.883	6.745	51.883	51.883	4.479	34.454	34.454
2	1.174	9.030	60.913	1.174	9.030	60.913	3.408	26.217	60.672
3	1.094	8.414	69.328	1.094	8.414	69.328	1.125	8.656	69.328
4	.790	6.076	75.404						
5	.708	5.443	80.847						
6	.550	4.232	85.079						

7	.429	3.302	88.381
8	.392	3.014	91.395
9	.289	2.223	93.618
10	.278	2.138	95.756
11	.222	1.705	97.461
12	.174	1.339	98.799
13	.156	1.201	100.000

Extraction method: Principal component analysis

**The principal factor load matrix of the factor after rotation.** According to the factor load matrix after the maximum variance orthogonal rotation, Factor 1 mainly includes bonus distribution, income level, performance payroll, incentive mechanism, benefit treatment, welfare status. Factor 2 mainly includes the construction area, job title promotion standard and system, leadership quality and ability, training mechanism and internal management, punishment mechanism. Factor 3 mainly refers to technical titles. At the same time, we can find that all the factors after the factor rotation, the common variance value of is more than 60%. The data indicate that the above three factors have a strong ability to interpret each index (see Table 5).

Table 5 Rotation factor matrix

	factor		
	1	2	3
Satisfaction of Bonus Distribution Method	.906	.155	.040
Satisfaction of Income Level	.821	.149	-.047
Satisfaction of Performance PayrollApproach	.790	.343	-.232
Satisfaction of Bonus System	.750	.408	.137
Satisfaction of Grant Treatment	.716	.360	-.096
Satisfaction of Welfare Status	.635	.481	.145
Satisfaction of Infrastructure	-.007	.744	-.125
Satisfaction of Title Promotion System	.288	.700	.055
Satisfaction of Leadership Quality and Management Ability	.435	.684	-.090
Satisfaction of Training Mechanism	.425	.655	.130
Satisfaction of Internal Management	.523	.633	-.219
Satisfaction of Punishment Mechanism	.392	.612	.196
Satisfaction of Technical Titles	-.051	-.005	.943

Extraction method: principal component.

Rotation method: Orthogonal rotation with Kaiser normalization.

a. The rotation converges after 5 iterations.

**Evaluation of Doctor 's Job Satisfaction.** In the factor analysis process, we use the regression method to calculate the factor score coefficient matrix, and then establish the corresponding factor score expression (see Table 6).

$$F1 = -0.272 * X1 - 0.001 * X2 - 0.054 * X3 - 0.121 * X4 - 0.041 * X5 + 0.191 * X6 - 0.038 * X7 + 0.309 * X8 + 0.347 * X9 + 0.220 * X10 + 0.185 * X11 + 0.114 * X12 + 0.008 * X13 \quad (1)$$

$$F2=0.436*X1+0.184*X2+0.243*X3+0.303*X4+0.227*X5-0.032*X6+0.213*X7-0.205*X8-0.233*X9-0.079*X10-0.045*X11+0.051*X12+0.003*X13 \quad (2)$$

$$F3=-0.121*X1-0.188*X2-0.076*X3+0.049*X4+0.120*X5+0.140*X6+0.179*X7-0.019*X8+0.061*X9-0.187*X10-0.068*X11+0.142*X12+0.8*X13 \quad (3)$$

Each factor score can be calculated from the above factor expression. At the same time, with the contribution rate of each factor as the weight, we can get the doctor's job satisfaction comprehensive score expression, as follows,

$$F=(34.454\%*F1+26.217\%*F2+8.656\%*F3)/69.328\% \quad (4)$$

By the formula Eq.1, Eq.2, Eq.3, Eq.4, we can see that,

$$F=0.015*X1+0.046*X2+0.056*X3+0.061*X4+0.08*X5+0.1*X6+0.084*X7+0.074*X8+0.077*X9+0.056*X10+0.066*X11+0.094*X12+0.11*X13 \quad (5)$$

Then,  $F=0.5273$ . The data shows that the evaluation of comprehensive satisfaction is 0.5273.

The results show that the current township hospitals doctors job satisfaction comprehensive evaluation of 0.5273, at a moderate level. This shows that the township hospital doctors work satisfaction level is low, to a certain extent, will affect their work enthusiasm and work identity, it is difficult to ensure the effective improvement of medical service quality. Indicating that the health authorities should actively improve the township hospital doctors job satisfaction, and promote the quality of medical services in township hospitals to improve the residents to meet the medical needs and improve the health of residents.

Table 6 Factor Score Coefficient Matrix

	factor		
	1	2	3
Satisfaction of Infrastructure	-.272	.436	-.121
Satisfaction of Internal Management	-.001	.184	-.188
Satisfaction of Leadership Quality and Management Ability	-.054	.243	-.076
Satisfaction of Title Promotion System	-.121	.303	.049
Satisfaction of Training Mechanism	-.041	.227	.120
Satisfaction of Bonus System	.191	-.032	.140
Satisfaction of Punishment Mechanism	-.038	.213	.179
Satisfaction of Income Level	.309	-.205	-.019
Satisfaction of Bonus Distribution Method	.347	-.233	.061
Satisfaction of Performance Payroll Approach	.220	-.079	-.187
Satisfaction of Grant Treatment	.185	-.045	-.068
Satisfaction of Welfare Status	.114	.051	.142
Satisfaction of Technical Titles	.008	.003	.839

Extraction method: principal component.

Rotation method: Orthogonal rotation with Kaiser normalization.

Constitute a score.

## Conclusion

In this study, the three main factors extracted from the results of factor load molecular factors are the total income level factor, the working environment factor and the technical titles factor. The total income level factor, the doctor is more concerned about the bonus distribution method, the working environment factor, the doctor is more concerned about the township hospital overall infrastructure construction level, the title factor, the doctor is more concerned about the senior title. Among them, the total income level of variance contribution rate of 34.454%, the highest proportion. This fully shows that the total income level factor is the most important factor. The evaluation of the factors that are closely related to the total income of the bonus distribution method, income situation, performance appraisal method, welfare treatment, subsidy subsidy and reward mechanism plays a key role in the comprehensive satisfaction score. The variance contribution rate of the working environment factor is 26.217%, the doctor's evaluation of the internal management of the hospital, job title promotion system, training mechanism and other factors, indicating that the positive improvement of the working environment is conducive to enhance the level of its satisfaction.

Therefore, basis on the above factor analysis, we should actively take effective measures to improve the job satisfaction of doctors in township hospitals. First, the government should improve the income level of doctors in township hospitals to improve their welfare situation. The study shows that job satisfaction is positively related to the level of income, and income treatment is an important influence on the satisfaction of township workers. According to Adams' theory of fairness, it is known that people pay attention not only to the absolute value of income distribution but also to the relative value of income distribution. Therefore, in the context of advancing the reform of the medical system, the health authorities should raise the income level of the doctors at the grassroots level and actively build a sound income distribution system and strengthen the fairness of doctors' income level. Second, the government should actively improve the working environment. On the one hand is to strengthen the infrastructure construction, improve the township hospital health level of medical treatment. On the other hand, build a sound internal management system. Strengthen the organization and leadership ability and quality of construction, enhance the leadership and management level. The government should actively implement the relevant policies and standards for the reform of the medical system, and constantly improve the internal management of township hospitals to build a harmonious working environment. And to actively promote the construction of learning organizations, to provide adequate training and training opportunities to strengthen the exchange and cooperation with high-level hospitals to enhance the grassroots health care physician's own business capacity to promote the realization of its personal development goals. Third, the government should to build a perfect job title promotion standards. Continue to deepen the medical and health system reform, health authorities should be careful approval of grass-roots hospitals in the senior title scale, should be appropriate to adjust the grassroots health service doctors job title promotion policy standards. All in all, the overall income level of the doctors at the grassroots level, the working environment and the promotion of job title are the important factors that affect the job satisfaction of the doctors at the grassroots level. Government departments should clear the functional positioning, to build a scientific and rational management system, to give preferential policies to strengthen the learning organization, and constantly improve the income distribution system to improve their working environment, so as to further enhance the township health clinic doctors satisfaction, promote township health Improve the level of service.

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