

Analysis of Influencing Factors of "Three Basics and Three Stricts" Examination for Physicians in Chongqing

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Abstract

Objective To study the influencing factors of the "three basics and three strict" examination results and the willingness to participate in training of physicians in Chongqing, so as to provide a theoretical basis for improving the "three basics and three strict" level of physicians. **Methods** Using stratified cluster sampling and self-designed questionnaires, a questionnaire survey was conducted among 2926 physicians who participated in the examination. **Results** Among all 2926 physicians who participated in the "Three Basics and Three Stricts" examination in Chongqing in 2020, there were 1452 males and 1474 females; the average age was 34.94 ± 6.12 years; the average score was 67.05 ± 14.99 points. Satisfaction with the "Three Basics and Three Stricts" training policy was high (3.68 ± 1.021). **Conclusion** Health administrative departments and medical institutions at all levels should pay more attention to "three basics and three stricts", diversify training methods, attach importance to training quality, and infiltrate "three basics and three stricts" into their daily work in order to improve the overall level.

Keywords

Physician Personnel; Three Basics and Three Stricts; Influencing Factors.

1. Introduction

Since General Secretary Xi Jinping put forward the concept of "Healthy China" at the National Health and Health Conference in August 2016, the Chongqing Municipal Health and Health Commission has quickly followed up and began to carry out the "Three Basics and Three Stricts" competition across the city. By 2020, it has been carried out for 5 consecutive years [1]. "Three bases and three stricts" means "basic theory, basic knowledge, basic skills, strict requirements, rigorous attitude, and serious style"[2]. The purpose of urging hospitals to attach importance to basic medical theory and skills. This paper conducts a questionnaire survey on 2,926 physicians who participated in the "Three Basics and Three Stricts" exam in 2020, analyzes the influencing factors of the "Three Basics and Three Strictness" exam results based on the test scores, and proposes improvement measures for their willingness to participate in training.

2. Objects and Methods

2.1. Research Objects

2926 physicians who participated in the "Three Basics and Three Stricts" examination in Chongqing in 2020.

2.2. Research Methods

139 hospitals and maternal and child health care centers in Chongqing were randomly sampled according to the standard of 20 people in secondary hospitals and 30 people in tertiary hospitals. A questionnaire survey was conducted for all study subjects.

2.3. Research Content

The scope of assessment is the basic theory, basic knowledge and basic skills that clinical nurses should master, including basic physicians, critical care physicians, internal medicine physicians, surgeons, hospital infection control, and physician core systems.

Questionnaires with good reliability and validity are used to investigate the basic information of the research objects, their satisfaction with the existing system, their participation in training and their willingness to conduct research.

2.4. Investigation Content

Questionnaires with good reliability and validity are used to investigate the basic information of the research objects, their satisfaction with the existing system, their participation in training and their willingness to conduct research. Questionnaire content: ① Basic information: gender, age, education, professional title, length of service, hospital grade. ② Participation in training and willingness: The number of times of participating in the "Three Basics and Three Stricts" training in the past two years, the number of times of participating in various types of continuing education in the past two years, the number of times that they hope to participate in the "Three Basics and Three Strict" training, etc. ③ Satisfaction with the existing "Three Basics and Three Stricts" training.

2.5. Investigation Content

After the data were entered by two people using EpiData3.1, SPSS26.0 software was used for data analysis. The enumeration data was expressed as the number of people (%), the χ^2 test was used for univariate analysis, and the difference t test was used for the average scores of different groups, and the multivariate analysis was used for multiple linear regression analysis.

3. Results

3.1. General Situation

Among all the 2926 physicians who participated in the "Three Basics and Three Stricts" examination in Chongqing in 2020, there were 1452 males and 1474 females; the average age was 34.94 ± 6.12 years old; the average score was 67.05 ± 14.99 points, and the skewness coefficient was -0.107. The 25th percentile was 59 points, the 50th percentile was 67 points, the 75th percentile was 75 points, 758 failed (0-59 points), and 1648 qualified (60-79 points), Good (80-89 points) 280 people, excellent (90-100 points) 240 people, the overall performance is good, the crowd is mainly concentrated in the qualified part, but there are still many people who fail. Among the 2706 respondents, 1947 were from secondary hospitals, accounting for 71.95%; 759 were from tertiary hospitals, accounting for 28.05%. The academic qualifications are mainly concentrated in undergraduates (1686 people, accounting for 62.31%) and masters (689 people, accounting for 25.46%); in terms of professional titles, intermediate professional titles (1237 people, accounting for 45.71%) and primary professional titles (1016 people, accounting for 37.55%) accounted for The ratio is the largest; in terms of participation in training, 439 people (16.22%) have not participated in the "Three Basics and Three Stricts" related training in the past two years, and 262 people (9.68%) have participated in the 1-2 day "Three Basics and Three Stricts" in the past two years. Strict" related training, 371 people (13.71%) have participated in 3-5 days of "three basics and three strict" related trainings in the past two years, and 245 people (9.05%) have participated in 6-8 days of "three basics and three stricts" in the past two years For related training, 1389 people (51.33%) have participated in more than 8 days of training related to "Three Basics and Three Stricts" in the past two years. The results are shown in Table 1.

Table 1. Factors influencing the performance of physicians in the "three basics and three strict" examinations in Chongqing in 2020

Variable	Number of Samples	Score	T/F	p
Hospital Grade				
2	1947	64.62±14.60	33.827	<0.001
3	759	71.25±11.04		
Recruitment Form				
Contract System	1016	65.39±14.71	4.529	0.033
Establishment	1690	67.25±13.49		
Educational Background				
PhD	100	72.59±9.88	50.342	<0.001
Master	689	70.48±12.67		
Undergraduate	1686	65.58±13.85		
College and Below	231	59.30±15.87		
Professional Title				
No Professional Title	64	61.42±16.33	6.929	<0.001
Primary Title	1016	65.11±14.74		
Intermediate Title	1237	67.41±13.76		
Deputy Senior Title	353	68.58±11.35		
Senior Title	36	66.47±12.84		
Working Years				
5 Years and Below	716	66.40±15.25	3.061	0.016
6 to 10 Years	866	67.62±13.29		
11 to 15 Years	523	66.47±13.44		
15 to 20 Years	291	66.08±14.57		
more than 20 Years	310	64.49±13.98		
Accumulated days of participating in the "Three Basics and Three Stricts" training in the past two years				
never	439	63.21±13.16	19.779	<0.001
1 to 2 days	262	62.06±16.21		
3 to 5 days	371	66.08±14.28		
6 to 8 days	245	68.37±14.32		
8 days and above	1389	68.25±13.27		

3.2. Individual Situation

By conducting a questionnaire survey on 2926 physicians who were surveyed in this study, the influencing factors of test scores were studied.

It was found that there were statistically significant differences in different levels of hospitals, recruitment forms, cultural qualifications, professional titles, working years, and the cumulative days of participating in the "Three Basics and Three Stricts" training in the past two years (P<0.05).

3.3. Different Levels of Medical Institutions

Among the survey subjects of this study, there were 1947 physicians from secondary medical institutions and 759 physicians from tertiary medical institutions. Among medical institutions of different levels, the number of cultural qualifications, the cumulative days of participating in the "Three Basics and Three Stricts" training in the past two years, the number of times of participating in various medical-related continuing education in the past two years, and the cumulative number of days that they want to participate in the "Three Basics and Three Strict" training each year. The difference was statistically significant (P<0.05).

3.4. Satisfaction with the "Three Basics and Three Stricts" Policy

The survey respondents' satisfaction with the "Three Basics and Three Stricts" training policy in Chongqing was generally good (3.68 ± 1.021), of which the satisfaction of physicians from secondary medical institutions was 3.69 ± 1.026 , and the satisfaction of physicians from tertiary medical institutions was 3.67 ± 1.009 , $F=0.093$, $p=0.760 > 0.05$, there was no statistical significance in the satisfaction of physicians with the "three basics and three strictness" policy among different grades.

3.5. Willingness to "Three Basics and Three Stricts" Training

In terms of their willingness to participate in the "Three Basics and Three Stricts" training in the future, 91 people (3.37%) are unwilling to participate in the "Three Basics and Three Strictness" training, 476 people (17.60%) want to participate in 1-2 days of training every year, and 797 people (29.47%) want to participate in 3-5 days of training every year, 525 people (19.42%) want to participate in 6-8 days of training every year, 815 people (30.14%) want to participate in more than 8 days of "three basics and three strict" training every year.

In addition, 1051 people (38.87%) hope to be organized by the unit to organize the "three basics and three strict" training, 764 people (28.25%) hope to participate in the "three basics and three strict" training organized by excellent medical institutions in the city, 503 people (18.60%) hope Participating in the "Three Basics and Three Stricts" training organized by the professional training center, 200 people (7.40%) hope to participate in the "Three Basics and Three Strict" training organized by medical schools, and 188 people (6.95%) hope to participate in the "Three Basics and Three Strict" training organized by medical branches "Basic Sanyan" training.

3.6. Analysis of Factors Influencing Performance

The variable assignment method was used for the questions in the questionnaire, and the five options were assigned according to 1-5, "very dissatisfied" and "never participated" were assigned as 1, and "very satisfied" and "more than 8 days" were assigned is 5. After the assignment, the factors influencing the performance were analyzed.

To analyze the influencing factors of the performance of "three basics and three strict" physicians in Chongqing in 2020, multiple linear regression was used, $R^2=0.278$, and the model fitting results were general (Tables 5 and 6). The results of the survey respondents were positively correlated with hospital grade, cultural education, professional title, and the cumulative number of days they participated in the "Three Basics and Three Stricts" training in the past two years. Among them, the hospital grade had the largest correlation coefficient. The grades are inversely proportional to the working years, the longer the working years, the lower the test scores.

4. Discussion

4.1. Overall Situation

Among the doctors who participated in the "Three Basics and Three Stricts" assessment in Chongqing in 2020, the number of males and females was equal, and the average age was 34.94 ± 6.12 years old, which was a reasonable age. The average score in the assessment is 67.05 ± 14.99 , the average score is low, and the scores vary greatly among different individuals. The proportion of the pass (60-79 points) part is the largest, accounting for 56.32%; the second is the unqualified (0-59 points) part, accounting for 25.91%; the proportion of people with excellent results (90-100 points) The least, at 8.20%. The above data shows that the overall performance of doctors participating in the "Three Basics and Three Stricts" assessment in Chongqing in 2020 is not good, with a large proportion of qualified and unqualified people, and

a small number of outstanding people. The basic theory and basic skills of doctors are not firmly grasped.

Among the survey respondents, 71.95% of the physicians were from secondary hospitals, and 28.05% were from tertiary hospitals. In terms of educational background of the survey respondents, bachelor degree accounted for the largest proportion, accounting for 62.31%; followed by master degree, 25.46%, master degree accounted for as much as a quarter of the survey respondents. According to the 2020 National Health Development Bulletin, 42% of my country's health technicians have a bachelor's degree or above, and the overall educational structure of the 55 public hospitals in Chongqing is significantly better than the national overall. In terms of the professional titles of the survey respondents, intermediate and primary titles accounted for 45.71% and 37.55% respectively. In 2020, the national health technicians had intermediate titles and 61.7%. The proportion of intermediate professional titles among the survey respondents is much higher than that of national health technicians, and the proportion of junior professional titles is significantly lower than that of national health technicians. Overall, the 55 public hospitals in Chongqing have an olive-shaped professional title structure, which is more reasonable.

In addition, through the questionnaire survey, it was found that among the respondents, 51.33% of the respondents had participated in the training related to the "Three Basics and Three Stricts" for more than 8 days in the past two years, and 16.22% of the respondents had not participated in the "Three Basics and Three Stricts" in the past two years. "Relevant training, data shows that more than half of the respondents have participated in the relatively systematic "three basics and three strict" training in the past two years, but there are still a small number of respondents who have not participated in any "three basics and three strict" training in the past two years. Strict" training.

By comparing the conditions of different levels of medical institutions, it is found that there are differences in the cultural qualifications and training of physicians between different levels of medical institutions. Among them, the cultural qualifications of physicians in tertiary medical institutions are generally higher than that of physicians in secondary medical institutions, and the cumulative number of days that physician in tertiary medical institutions have participated in the "Three Basics and Three Stricts" and other training in the past two years is also higher than that of physicians in secondary medical institutions.

The overall satisfaction of the respondents to the "Three Basics and Three Stricts" policy in Chongqing is good, and the satisfaction is relatively high, and there is no difference in the satisfaction among physicians in different levels of medical institutions.

In terms of willingness to participate in the "Three Basics and Three Stricts" training, about one-third of the respondents hope to participate in the "Three Basics and Three Strict" training for more than 8 days each year. From the survey results, the respondents are not willing to participate in the training. strong. Nearly 40% of the respondents want to participate in the training organized by the unit, so that they can balance daily work and training.

Finally, this paper analyzes the influencing factors of the performance of doctors who participated in the "Three Basics and Three Stricts" assessment in Chongqing in 2020. The results show that the hospital grade and cultural education of the doctors participating in the assessment are the two most influential factors. The higher the hospital grade and cultural education the higher the grades, the higher the grades; the working years and the doctor's assessment results are negatively correlated, the longer the doctor's working years, the worse the grades, indicating that the doctors lack "three basics and three strict" continuing education after work, resulting in unsatisfactory examination results. The model fitting results are general.

4.2. Reason Analysis

By reviewing the relevant literature, it is found that the reasons for this phenomenon are roughly as follows:

4.2.1. Not Enough Attention

Health administrative departments and medical institutions at all levels do not pay enough attention to the "Three Basics and Three Stricts", and only regard it as a process at the end of each year, and do not add the "Three Basics and Three Stricts" to a study and assessment link in their daily work. The concept of "Three Basics and Three Stricts" proposed by the National Physician Department is to improve the professional quality and educational level of physicians. It is an important measure to reflect the patient-centeredness and meet the needs of patients. Take the People's Hospital of Kaizhou District, Chongqing City as an example. The hospital's performance in the "Three Basics and Three Stricts" exam in Chongqing in 2019 was very unsatisfactory, ranking fifth from the bottom of all units. Work related to "Three Bases and Three Stricts" and actively organize training, ranking first in the "Three Bases and Three Stricts" exam in 2020. It can be seen that as long as enough attention and action are taken, the desired effect can be achieved.

4.2.2. Reasons for Training

Through the understanding of many hospital training organizations in Chongqing, it is found that there are almost no organizations that provide relevant training for the "Three Basics and Three Stricts", and each medical institution can only organize training on its own. In addition, the staffing of various positions in the hospital is not sufficient, and they are tired of daily work and do not have enough time for continuing education, so it is difficult to organize training by themselves [4].

4.2.3. Hospital Reasons

There are many medical institutions at all levels in Chongqing, and the competition is fierce. Therefore, they pursue professional refinement and strive to become the "signboard" in the region. This leads to the medical staff paying too much attention to specialized knowledge and neglecting the reserve of basic knowledge [3]. It is also one of the reasons why the overall level of Chongqing's "Three Basics and Three Stricts" is not high.

4.2.4. The Scope of the Three Bases is not Clear Enough

From the 1960s when the famous medical educator Professor Huang Jiasi first proposed the concept of "Three Basics and Three Stricts"[4], until November 1, 2006, Article 57 of the Detailed Rules for the Implementation of the Regulations on the Administration of Medical Institutions stipulated that in recent years, the National Physician Department has put forward the concept of "Three Basics and Three Stricts". There is always a lack of specific coverage of the "three basics and three stricts" for doctors and doctors. Therefore, it is difficult for medical staff to fully study the knowledge of "three basics and three stricts", and it is difficult for relevant training to cover all "three basics" knowledge. The assessment standard that was conducted was the outline formulated when the "Three Basics and Three Stricts" assessment was conducted for the first time in 2016. In this year, "new crown" related content was added, but the coverage of relevant knowledge was not broad enough to improve the quality of medical care and meet the needs of patients. desired purpose.

4.3. Countermeasures and Suggestions

4.3.1. Strengthen Attention and Strengthen Understanding

The health administrative department has begun to attach importance to the "three basics and three stricts", and the daily development and examination results of the "three basics and three stricts" are included in the annual assessment of medical institutions. This measure will

definitely increase the attention of departments at all levels. In addition, "three basics" training is an important measure to strengthen standardized training and improve medical quality [6].

4.3.2. Strict Organization and Clear Functions

Improve the organization and set up the "Three Basics and Three Stricts" assessment team. The person in charge of the assessment team of the leading unit of the hospital conducts ideological mobilization, process supervision and training assessment for the trainees to ensure that the trainees can guarantee the quality and quantity during the training and assessment process completion [7].

4.3.3. Diverse Forms and Emphasis on Quality

The free time of medical staff is not fixed, which makes it difficult to carry out traditional training forms. Therefore, an online teaching platform can be developed, experts in various fields can teach online, and medical staff can learn offline, so that training opportunities are more extensive and learning time is more flexible. Informatization assessment training can improve the knowledge mastery and training satisfaction of physicians [8], which is a good method in line with the current situation. In addition, it is necessary to strictly screen courses and assess trainees to ensure the quality of training [9].

4.3.4. Link up and Down, Go Hand in Hand

Some medical institutions with lower levels and levels often encounter difficulties such as lack of teachers and low quality when carrying out the work of "Three Basics and Three Stricts". Currently, higher-level hospitals share advantageous medical resources with primary medical institutions through various channels through medical alliances, and promote the formation of a new continuing education model [10]. Whether it is online consultation, online teaching, or advanced study, it has a good role in promoting medical institutions at all level.

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