

Survey on Satisfaction with Standardized Training of Traditional Chinese Medicine

Yuan Fang, Jincai Wei*

Wenzhou Medical University, Wenzhou 325029, China.

Abstract: Objective: To explore the level of satisfaction of residents undergoing standardized training in traditional Chinese medicine (TCM) in Zhejiang Province and to provide reference for further improvement of such training. **Methods:** A self-designed questionnaire was administered to 232 Chinese medicine residents in Zhejiang Province. **Results:** The total satisfaction obtained in this study was 3.87 ± 0.95 points. The lower satisfaction scores in various dimensions were teaching process (3.76 ± 0.88 points), and the proportion of traditional Chinese and western medicine in the teaching curriculum (3.36 ± 1.09 points). Satisfaction and correlation of trainees with different training duration in various dimensions ($P < 0.05$). **Conclusion:** The satisfaction of TCM resident training needs to be improved, the proportion of TCM teaching and the supervision of teaching process and teaching awareness should be increased.

Keywords: Chinese Medicine Resident; Standardized Training for Residents; Satisfaction Survey

1. Introduction

The purpose of standardized resident training is to achieve homogeneity of physician training in China, and to cultivate enough qualified clinicians for modern society. In 2014, the State Administration of Traditional Chinese Medicine issued documents such as "Implementation Measures for Standardized Training of Traditional Chinese Medicine Residents (Trial Implementation)" and "Standardized Training Standards for Traditional Chinese Medicine Residents (Trial Implementation)," signaling that traditional Chinese medicine (TCM) resident training has officially entered a stage of institutionalized operation and management. After years of continuous exploration and practice, certain progress has been achieved; however, there are still some problems in the integration of traditional medicine heritage and modern medicine teaching in China. The purpose of this study is to investigate the level of satisfaction of residents of TCM with their training in Zhejiang Province, understand their current situation, analyze the shortcomings of resident training work, and provide some suggestions for the development of resident training in TCM.

2. Object and methods

2.1 Survey object

The subjects of this study were Chinese medicine resident physicians in Zhejiang Province who either were in training from 2019 to 2021 or completed resident training in 2017–2018. A total of 232 valid questionnaires were collected.

2.2 Survey methods

We developed a preliminary questionnaire by reading policy documents and relevant literature, conducting interviews with relevant industry personnel, and consulting experts and training management personnel. Subsequently we revised and adjusted the results of the preliminary survey to design the final questionnaire, which was distributed to the sample population electronically in April 2022.

The questionnaire includes two parts: basic information of resident physicians and a satisfaction survey. The satisfaction survey includes the evaluation of seven areas: basic management, teaching process, assessment implementation, proportion of traditional

Chinese and Western medicine teaching, comprehensive ability cultivation, humanistic quality, and overall satisfaction. The questionnaire was designed in the form of a positive attitude statement score and a Likert rating scale, using a five-level scoring method: “very satisfied”, “satisfied”, “neither satisfied nor dissatisfied”, “dissatisfied”, and “very dissatisfied” with values of 5, 4, 3, 2, and 1, respectively.

2.3 Reliability and validity analysis

The overall Cronbach’s α of the questionnaire was 0.978, indicating that the internal consistency of the scale is satisfactory. The KMO coefficient is 0.935, which is a significant level according to the Bartlett's spherical test ($\chi^2=6063.694$, $P<0.001$).

2.4 Statistical methods

The data were statistically analyzed using SPSS 26.0 software. Using statistical methods such as descriptive analysis, t-test, and one-way analysis of variance, $P<0.05$ indicates a statistically significant difference.

3. Results

3.1 Basic information of survey objects

There were 232 respondents in this survey, including 88 males and 144 females. See Table 1 for details.

Table 1 General situation of participants in the survey (n/%)

Target	Classification	Number (n)	Proportion (%)
Sex	Male	88	37.93
	Female	144	62.07
Training duration	First	59	25.43
	Second	58	25
	Third	59	25.43
	Completed after two years	56	24.14
Educational background	Scholar	182	78.45
	Master	50	21.55
Status	Professional Master	47	20.26
	Regular employee	14	6.03
	Training entrusted by other medical institutions	163	70.25
	Self-registration	8	3.45

3.2 Satisfaction survey of resident training

The result of this survey showed that the level of satisfaction of resident training is 3.87 ± 0.95 points. The satisfaction score of each area in decreasing order was as follows: humanistic quality (4.15 ± 0.67 points), basic management (3.89 ± 0.7 points), assessment implementation (3.83 ± 0.92 points), comprehensive ability cultivation (3.79 ± 0.73 points), teaching process (3.76 ± 0.88 points), and the proportion of Chinese and Western medicine teaching (3.36 ± 1.09 points). There was a statistically significant correlation between each area and total satisfaction ($P<0.01$).

3.3 Satisfaction and correlation of trainees with different training duration in various dimensions

After testing, different training years have a correlation with satisfaction of the proportion of traditional Chinese and Western medicine teaching, assessment implementation, teaching process, and basic management ($P<0.05$). Among different years of training, the satisfaction of resident training in the third year was the highest, and the lowest in the second year. See Table 2 for details.

Table 2 Satisfaction scores and correlation among trainees with different training duration

	First	Second	Third	Completed	F	P
The proportion of Chinese and Western medicine teaching	3.19±0.98	2.96±1.33	3.8±0.92	3.47±0.92	4.64	0.004
Assessment implementation	3.79±0.94	3.61±1.08	4.21±0.66	3.69±0.85	3.54	0.016
Teaching process	3.56±0.93	3.51±0.95	4.05±0.72	3.91±0.79	3.71	0.013
Basic management	3.76±0.76	3.7±0.74	4.09±0.62	3.99±0.63	2.75	0.045
Comprehensive ability cultivation	3.53±0.68	3.44±0.79	3.81±0.68	3.58±0.75	1.94	0.126
Humanistic quality	3.97±0.6	4.11±0.8	4.38±0.53	4.07±0.67	2.65	0.051

4. Discussion

4.1 Trainees with different training duration have different satisfaction levels with each area

According to the survey, there is a correlation between different years of residential training and the areas of teaching process and the proportion of Chinese and Western medicine instruction. Both areas showed the highest level of satisfaction from trainees in the third year of residential training, while the lowest was in the second year. Owing to the strong professional relevance, teachers have a strong sense of teaching and great enthusiasm for teaching trainees in their respective majors^[1]. At the same time, because of the long time spent in the undergraduate department, trainees have more time to follow up on traditional Chinese medicine clinics, more opportunities to participate in departmental lectures, and more knowledge of TCM. In the previous 24 months, the rotation training situation in other relevant professional departments showed an opposite trend.

4.2 Need to increase teaching content of traditional Chinese medicine

According to the results of the survey, a large proportion of trainees believe that theoretical, technical, and skills teaching of TCM needs to be improved. Compared to schools, theoretical learning in hospitals is more closely integrated with clinical practice. Therefore, in clinical teaching, practice should not be emphasized over theory, and the frequency of small lectures on TCM should be appropriately increased. During the process of teacher training, attention should be paid to the recording and review of teacher experience and clinical medical records, and communication between teachers and trainees should be strengthened. Learning traditional Chinese medicine skills such as looking, smelling, asking, and cutting can provide more substantial experience and more concrete understanding in clinical practice, but pulse tapping is more difficult to acquire than other skills, and requires a large amount of practice to achieve good results^[4]. Research has proven that funding has a direct positive effect on training effectiveness. While the investment in facilities and equipment for TCM teaching is relatively small, residential training institutions should increase investment in facilities and equipment related to TCM teaching to improve the frequency and quality of its trainees' practice.

4.3 Improvement of teaching and strengthening the management of teacher resources

Teacher training is an important component of physician training. The threshold for teacher training should be raised, and the teaching team should be regularly assessed and screened. It is important to emphasize the cultivation of teaching awareness of resident physicians and the need for their active participation in provincial and municipal teaching and training activities. Moreover, it is essential to strengthen the management and supervision of the teaching process and develop a two-way feedback system for teachers and trainees^[5]. Besides, there is a need to increase subsidies and benefits for teaching and improve the reward and punishment mechanism for teaching. Based on the assessment results, certain honorific and material rewards should be offered to outstanding teachers to enhance their enthusiasm for teaching^[6].

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