Research on the Construction of the Capacity of General Practice Trainers of Community Training bases in China

Xin Rao (✉ 617993959@qq.com)

West China hospital of Sichuan university

Qiaoli Su

West China hospital of Sichuan university

Shuangqing Li

West China hospital of Sichuan university

Xingyue Wang

West China hospital of Sichuan university

Research Article

Keywords: trainers' ability system , hospital / community integrated teaching, competency

Posted Date: August 18th, 2021

DOI: <https://doi.org/10.21203/rs.3.rs-649080/v1>

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Abstract

Background: To explore the construction of the trainers' ability system of the community practice base of general practice under the background of hospital / community integrated teaching of general practice.

Methods: literature analysis, Delphi discussion and questionnaire survey were used in the study, and exploratory factor analysis was used to extract competency.

Results: there are 4 first level indicators and 20 second level indicators in the system, among which the first level indicators are: personal characteristics and professionalism, teaching and research ability, basic level clinical practice ability, and base organization management ability.

Conclusion: the index system enriches the theory of teachers' ability in community practice base of general practice medicine, and provides empirical research basis for the selection, ability training and performance evaluation of teachers in community practice base of general practice medicine.

Background:

With the continuous deepening of national residency training, the continuous expansion of enrollment scale, and the more standardized requirements for general practice bases, higher requirements are put forward for the personal abilities of regular training teachers. The community practice base of General Practice is an important part of the stage, and the ability of the community to lead teachers has a pivotal effect on the growth of general practice training students [1-3]. The professional construction of community faculty is of great significance to the training quality of general medical training students [4-6]. This article aims to discuss the construction and improvement of the teaching abilities of the community practice base of general practice through the integrated teaching construction of hospital/community in the practice process of the general practice base of West China Hospital of Sichuan University.

Methods:

1.1 Literature research

Consult relevant domestic and foreign literature, summarize and explore the teaching abilities of the general practice community practice base.

1.2 Semi-structured interview

Select 7 teachers with basic teaching experience in General Practice and 3 managers who have been engaged in grassroots management for many years to conduct semi-structured interviews to explore the elements of the teaching abilities of the general practice community practice base.

1.3 Questionnaire survey

Combine the literature and interview results to compile a questionnaire. Using the cluster and stratified sampling method, 150 questionnaires were issued to teachers and trainees of the 7 general practice community practice bases of the West China Hospital of Sichuan University, and 144 were recovered, with an effective recovery rate of 96.3%.

1.4 Statistical methods

The questionnaire star software was used to collect the data, and the SPSS 22.0 statistical software was used to perform descriptive analysis, reliability and validity tests and exploratory factor analysis on the data. 2 results 2.1 Basic situation of the subject 144 teachers in the community were researched and surveyed. See Table 1 for their basic personal information.

Results:

TALBE 1

Basic information of residents' trainers

Classification	number	percentage
Gender		
Male	13	26
Female	37	74
Education degree		
Below Bachelor	6	12
Bachelor	40	80
Master or above	4	8
Professional title		
Senior title	5	10
Vice Senior title	26	52
Middle title	19	38
Registered Practice General Practice		
Yes	38	76
No	12	24
Participate in the general teacher training level		
Province level	31	62
National level	18	36
Province and National level level	1	2

Exploratory factor analysis After statistical analysis, the Cronbach's alpha coefficient of the questionnaire is 0.90, and the KMO value is 0.853, the data supports factor analysis, which is relevant and statistically significant. The principal component analysis method is used for exploratory factor analysis. After multiple orthogonal rotations, 3 items with two-factor loading greater than 0.4, independent factor loading less than 0.4, and content inconsistent are deleted, and the characteristic root is greater than 1. For 20 items with factor loading greater than 0.5, the factor analysis results are shown in Table 2 and Table 3.

Table 2

Factor variance contribution rate

Total variance explained									
Initial eigenvalue			Extract the sum of squares of the load			Rotating load sum of squares			
	SUM	Percentage of Variance	Cumulative percentage	SUM	Percentage of Variance	Cumulative percentage	SUM	Percentage of Variance	Cumulative percentage
1	11.405	57.027	57.027	11.405	57.027	57.027	4.412	22.062	22.062
2	1.712	8.558	65.586	1.712	8.558	65.586	4.296	21.480	43.542
3	1.365	6.827	72.412	1.365	6.827	72.412	3.550	17.750	61.292
4	1.124	5.618	78.031	1.124	5.618	78.031	3.348	16.739	78.031
5	0.780	3.898	81.929						
6	0.629	3.143	85.072						
7	0.511	2.553	87.625						
8	0.390	1.949	89.573						
9	0.342	1.711	91.284						
10	0.329	1.643	92.927						
11	0.258	1.288	94.215						
12	0.225	1.125	95.340						
13	0.194	0.968	96.308						
14	0.171	0.853	97.161						
15	0.166	0.829	97.990						
16	0.125	0.625	98.615						
17	.104	0.519	99.134						
18	0.086	0.431	99.565						
19	0.053	0.263	99.827						
20	0.035	0.173	100.000						

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Table 3

Factor analysis results.

Common factor variance		
	initial	extract
Able to integrate teaching goals	1.000	.747
Teaching organization ability	1.000	.902
Teaching awareness	1.000	.827
Teaching reflection	1.000	.740
Ability of giving lectures	1.000	.719
Teaching method selection	1.000	.811
Academic achievements	1.000	.783
Teacher-student interaction effect	1.000	.735
Team leadership	1.000	.783
Professional theoretical knowledge	1.000	.803
Rich clinical experience	1.000	.768
Proficient clinical operation skills	1.000	.626
Familiar with national health policy	1.000	.718
Grasp the requirements for the evaluation of the training base	1.000	.777
Effectively interact with clinical bases	1.000	.726
Familiar with the operation mode of primary medical institutions	1.000	.799
Affinity	1.000	.809
Sense of responsibility	1.000	.875
Understand and respect students	1.000	.918
Science and Humanities	1.000	.739

Common factor naming

Common factor 1 contains three items, reflecting some of the personal characteristics of teachers, including affinity, tolerance and sense of responsibility, understanding and respect for trainees, etc. [7-8].

Common factor 2, including six main items, reflecting the teaching ability requirements and research capabilities that teachers of the general practice community practice base should have: a certain teaching organization ability, reasonable arrangement of teaching content, teaching reflection, and teaching reform [9- 10], including teaching awareness, teaching ability, teaching reflection, selection of teaching methods, professional theoretical knowledge and ability to combine goals, etc.

Common factor 3, containing six items, reflects the requirements for community teachers in the basic-level clinical practice capabilities: Have certain clinical capabilities and be able to apply practice at the basic-level, including familiarity with the operation mode of basic-level institutions, mastering the requirements of the evaluation of the training base, and effective Interact with clinical bases, have rich clinical experience, scientific and humanistic literacy, and proficient clinical skills operation, etc. [7].

Common factor 4 contains five items, reflecting the ability of community teachers in the construction and management of grassroots teaching bases [5,11], including: teaching organization ability, team leadership ability, effective organization of teacher-student interaction, familiarity with national health policies, and Corresponding academic achievements.

Discussion:

Based on the background of hospital/community integrated General Practice construction, Sichuan University Hospital aims to simultaneously improve the personal characteristics and professional qualities of the grass-roots teachers, teaching and research capabilities, grass-roots clinical practice capabilities, and organization management capabilities. The homogeneity training of doctors provides practical guarantee.

3.1 Pay attention to personal characteristics and professional qualities, and comprehensively consider the selection criteria for teachers

West China Hospital of Sichuan University first refers to the "Standardized Resident Training Evaluation Index-General Practice Base" of the Chinese Medical Doctor Association in the selection criteria of the grassroots general practitioners, and "hardly" the teachers' academic qualifications, professional titles, and grassroots work experience at the grassroots practice base. The conditions are checked one by one to ensure the basic conditions of teachers; at the same time, it pays attention to the consideration of "soft" strengths such as teachers' personal characteristics and professionalism, such as the sense of teaching responsibility, understanding and respect for the doctors in residence training, etc. According to the principle of "hidden curriculum"[10], the basic level of general practitioners will greatly influence the future career choices of the doctors in live training. Therefore, the primary impression that teachers bring to doctors in live training will be particularly critical.

3.2 Cultivate teaching and research abilities, and enrich the connotation of general teachers at the basic level

The West China General Practice Department of Sichuan University fully considers the needs of hospital/community integrated general practice construction. In the design and organization of grassroots general practice teaching activities, it is constructed together with grassroots bases [12], striving for homogeneity and wide coverage. And pay attention to the teaching and research abilities of teachers at the training level. The West China Department of General Practice of Sichuan University organizes joint teaching medical record discussions at least three times a month. The first week is carried out by the headquarters, the second week is undertaken by the teaching collaboration base, and the third week is undertaken by the grassroots practice base. All content is open to all bases through online meetings. Let teachers and live training doctors participate together. At the same time, the West China Department of General Practice of Sichuan University set up joint outpatient teaching in the grassroots practice base. Teachers from West China regularly go to different communities for community outpatient teaching, reflecting the general clinical thinking and general practice ability, and constantly improving community outpatient clinics. Norms of teaching. In addition, qualified bases carry out joint teaching rounds. Through the "synchronized" joint teaching activities, the teaching and research capabilities of the training-level general-disciplinary teachers are enriched in the connotation of the general-subject teaching activities at the basic level.

3.3 Consolidate basic-level clinical practice capabilities and improve the quality and effectiveness of basic-level teachers' general practice practice

In terms of subject positioning and development, the West China Department of General Practice of Sichuan University is based on clinical ability and guided by grassroots practice. The development and improvement of the clinical practice ability of the grassroots general practice faculty are all based on the "teaching consortium". [13–14], to achieve the coordinated development of clinical bases and grassroots bases, such as organizing and inviting grassroots general practitioners to participate in the on-site teaching and remote courses of various residential training doctors in West China Hospital, and regularly inviting grassroots general teachers to participate in the "West China hospital - Community Alliance Basic Level General Practitioners' Ability Training and Improvement Program, organize base teachers to participate in provincial resident teacher training, star-rated family doctor training programs, etc. [12], so that the base teachers' general practice clinical capabilities can be improved and developed simultaneously [12, 15].

3.4 Improve the organization and management capabilities of the teacher base, and innovate the operating mechanism of the basic practice base

In order to train well-trained physicians in the whole process, the collaborative interaction between clinical bases and grassroots bases is also a key link, among which grassroots teachers are also essential to the management capabilities of grassroots organizations. Basic-level teachers need to be familiar with the national health policy, master the management requirements of the live training base, have the ability to operate the base teaching, and manage the live training doctors properly. At the same time, innovating the operating mechanism of the grassroots practice base is also a policy measure to promote the coordinated development of clinical bases and grassroots bases.

Conclusion:

In summary, in the hospital/community integrated teaching construction of the General Practice Specialty Base of West China Hospital of Sichuan University, it is based on clinical ability and practice-oriented at the grassroots level, gradually forming a solidified teaching model, so as to achieve the integration of clinical bases and grassroots bases. Coordinated development.

Declarations

Ethics approval and consent to participate

The research has get the ethics approval of west china hospital ethic committee with the number 2020YFQ0011. All methods were carried out in accordance with relevant guidelines and regulations and informed consent was obtained from all participants by written.

Consent for publication

The manuscript contains any individual person's data is consent for publication.

Availability of data and material

All data and materials is of availability

Competing interests

There is no competing interests

Funding

China Sichuan Provincial Department of Science and Technology, Aided Tibet for collaborative integration of health management and family doctors contact demonstration program 2020YFQ0011

The funding aim to promote the quality of general practice level in Sichuan Provincial and Tibet in of China, the funding support the data collection and relevant activity.

Authors' contributions

All authors participated in the design of the study and contributed to the drafting of the paper. RX designed the research and was major contributor in writing the manuscript. LS and SQ guide the discussion parts, WX performed the result, All authors read and approved the final manuscript.

Acknowledgements

I acknowledge to Prof Long of China evidence-based center.

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