Investigation and Analysis of Standardized Training for Residents of General Practitioners of Gansu Province in China

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Abstract

Background: China's standardized training for residents of general practitioners (GPs) is aimed at providing the postgraduate training to family physicians who will serve the primary medicine units. The aim of this paper is to investigate the standardized training situation, satisfaction of standardized training, work situation and intention, satisfaction of work and attitude for GPs who have finished standardized training. Methods: This study was undertaken among 6 training hospitals of Gansu province. The survey included a questionnaire with 73 queries. Results: Approximately 275 residents of GPs were approached. In total, 263 residents participated (95.64% response rate). The average age of the participants was 28 years (standard deviation, 1.93 years; range, 25-36 years). The gender distribution was 50.57% women and 49.43% men. Marital status was 56.65% single and 43.35% married. In the results, 92.40% residents had obtained certification of the standardized training for residents of GPs. Only 39.54% residents were satisfied for monthly income during the training. And among 171 rural medical oriented graduates, only 42.69% residents wanted to continue to work at the grass-roots level when the serve time 6 years was finished. 86.31% residents of GPs who had finished the standardized training had jobs. More than half of medical institutions were belong to the primary medical and health institutions. Only 29.96% residents were registered as GPs. And the main reason for not been registered as GPs was that the medical institutions and sanitary bureau did not know the general medicine policy and did not agree. Among the residents who were assigned in general practice department, 68.42% of the work was diagnosis and treatment of common disease and frequently-occurring diseases and the referral of patients. The percentage of residents who were satisfied for the job and income were 30.40% and 14.98% respectively. Conclusion: China's standardized training for residents of GPs is under gradual improvement and development. In order to cultivate more GPs and let more GPs be willing to serve the grass-roots level, formulating and executing more good policy for GPs and increasing the publicity of general medicine and GPs are necessary.

Background

China is a developing country with a population of more than 1.3 billion. With the economic development and the improvement of people's living standards, urban and rural residents are increasingly demanding higher levels of health. At the same time, industrialization, urbanization and ecological environment changes more and more factors affecting health, population aging and changes in disease spectrum also put new demands on medical and health services. In the metropolis, difficulties in seeing a doctor and higher cost of seeing a doctor come from leap-level diagnosis and treatment. And the leap-level diagnosis and treatment stems from the weakness of the ability of primary medical institutions. The construction of basic medical and health personnel team in China lags behind, and the number of qualified general practitioners (GPs) is insufficient, which restricts the improvement of basic medical and health services[1].

According to the China Statistical Yearbook of 2018, the number of grassroots medical and health institutions, the number of health workers, and the number of rural doctors and health workers in Gansu

Province in 2018 were 26579, 199155 and 21358, respectively, which were lower than the average level in all regions of China (30097, 378673 and 31331)[2]. In addition, the differential analysis of primary health care capacity in 31 regions of China was conducted, which showed that there were regional differences in the service capacity of grassroots medical institutions in China, and the medical human resources of grassroots medical and health institutions in Gansu Province was ranked at 16[3]. In Gansu, the number of qualified GPs is seriously insufficient.

A recent study from Stanford medical school and Harvard medical school proved that greater primary care physician supply is associated with lower mortality and GPs are the main force of the medical team, and in most instances patients firstly see GPs to deal with common diseases in American[4]. China has also paid attention to the training and development of GPs. The standardized training system for residents had been trial implemented in some provinces and cities, such as Sichuan, Shanhai and Beijing[5-7]. And training effect of the standardized training for residents was evaluated, which showed standardized training system had been implemented well and resident physicians enjoyed an improvement in clinical competence[8,9]. And finally in Dec 2013, guidance on the establishment of standardized training system for residents was published by the National Health Commission of the People's Republic of China and other 7 departments. The standardized training system included 34 majors and general medicine was included. According to the guidance, it is proposed that by 2015, all provinces will comprehensively launch standardized training for residents, and by 2020, a standardized training system for residents will be established, and all undergraduates and above clinicians in new medical positions will receive standardized training for residents[10].

In China, GPs are called gatekeepers to the health of the inhabitants. GPs are highly integrated medical talents, who mainly undertake prevention and health care, diagnosis and treatment of common and frequently-occurring diseases, referral of patients, patients' rehabilitation, chronic disease management and health management at the grass-roots level. Therefore, The State Council issued opinions on the reform and improvement of the training and use of incentive mechanism for general practitioners[11]. Establishing a grading diagnosis and treatment model in China, implementing a GP contract service, and implementing the responsibility for medical and health services to individual doctors is the development direction of China's medical and health services. By 2020, a GP system full of vitality will be established in China, and a unified and standardized GP training model and a "first-time at the grassroots" service model will be formed. A stable service system of GPs and urban and rural residents will be basically established. Two to three qualified GPs per 10,000 inhabitants in urban and rural areas will be basically achieved. The service level of GPs will be comprehensively improved, and it will be basically adapted to the basic medical and health service needs of the people. However, there had been only 253,000 qualified GPs in China and only 1.81 GPs per 10,000 populations by the end of 2017, which had a big distance with the health needs of the people[12].

In 2010, the National Development and Reform Commission and other departments initiated the free training of rural order-oriented medical students, requiring free medical students to sign a targeted employment agreement with the training school and health commission and human resources society

before enrolling and obtaining admission notices. Free medical students must promise to serve the rural primary health care institutions for six years after graduation. After the free undergraduate medical graduates report for employment, they must participate in the three-year standardized training for residents of GPs in accordance with the regulations, and the three-year training time is included in the six-year service period. At present, the standardized training for rural order-oriented medical graduates is the main training method of GPs[13].

Since the implementation of the standardization training for GPs in Gansu Province in 2014, there have been two grades GP residents graduated. Therefore, it is necessary to investigate the training situation, work status and satisfaction, and improve reliable advice for the training of GPs in the later period.

Methods

Questionnaire survey

This study involved a 1-step cross-sectional survey, and the questionnaire included 45 queries. Standardized training of residents in Gansu were lunched completly in 2015 and the training time is 3-year. So the participants were residents of GPs who had finished standardized training from 6 training hospitals in 2017 and 2018. The research unit was quality control center for general practice of Gansu, therefore, it was convenient to use these hospitals to facilitate the investigation and research.

Sample size and method

The research team obtained full coverage of the GPs who had finished standardized training. In total, 275 respondents met the requirements in the survey, and 273 completed questionnaires were valid. The questionnaire was divided into five parts involving 45 items, such as basic personal information (8 items), standardized training situation (9 items), satisfaction of standardized training (6 items), work situation and intention (13 items) and satisfaction of work and attitude for GPs (9 items) respectively. A member of the research group was responsible for distributing and collecting the questionnaire, which was sent to training hospitals directors and used an anonymous self-reporting method. The individual in this manuscript has given written informed consent.

Statistical analysis

After eliminating invalid questionnaires, the data were entered using Excel. The analytical method was descriptive statistics (number and percentage).

Results

Basic characteristics

As shown in Table 1, approximately 275 residents of GPs were approached. In total, 263 residents participated (95.64% response rate). The gender distribution was 133 (50.57%) women and 130 (49.43%)

men. The average age of the participants was 28 years with a *SD* of 1.93. Marital status was 114 (43.35%) married and 149 (56.65%) single. Education status was 2 (0.76%) junior college, 240 (91.25%) bachelors and 21 (7.98%) masters. The number of respondents had finished standard training in 2017 and 2018 were 47 (17.87%) and 216 (82.13%) respectively. Among all the 6 training hospitals, 59 (22.43%) were in Gansu Provincial Hospital, 96 (36.50%) were in The First Hospital of Lanzhou University, 57 (21.67%) were in The Second Hospital of Lanzhou University, 41 (15.59%) were in Chinese People's Liberation Army 940 Hospital, 6 (2.28%) were in The First Hospital of Tianshui and 4 (1.52%) were in The People's Hospital of Pingliang. 171 (65.02%) were rural medical oriented graduates. 224 (85.17%) were fresh graduates and 39 (14.83%) were former graduates.

Table 1 Demographic characteristic of the respondents

Demographic characteristic		Frequency	Percent(%)
Gender	Male	130	49.43
	Female	133	50.57
Age	<=25	7	2.67
	25-30	223	84.79
	>30	33	12.54
Marital status	Married	114	43.35
	Unmarried	149	56.65
Education	Junior college	2	0.76
	Bachelor	240	91.25
	Master	21	7.98
Years of accepting training	2014-2017	47	17.87
	2015-2018	216	82.13
Residents of training hospital	Gansu Provincial Hospital	59	22.43
	The First Hospital of Lanzhou University	96	36.50
	The Second Hospital of Lanzhou University	57	21.67
	Chinese People's Liberation Army 940 Hospital	41	15.59
	The First Hospital of Tianshui	6	2.28
	The People's Hospital of Pingliang	4	1.52
Residents type	Rural medical oriented graduates	171	65.02
	Other graduates	92	34.98
Graduate type	Fresh graduates	224	85.17
	Former graduates	39	14.83

The survey of standardized training situation for residents of GPs

As shown in Table 2, 243 (92.40%) residents passed certification exam. 180 (68.44%) residents thought it was necessary to launch the standardized training for residents of GPs, while 20 (7.60%) thought it was unnecessary. More than half of residents' monthly income was among 2000 and 3000RMB. 101(38.40%) residents thought it was useful to improve comprehensive ability by standardized training, while 77 (29.80%) thought it useless. The improved abilities of residents of GPs mainly included clinical technology (91.63%) and medical theoretical knowledge (71.48%). Only 84 (31.94%) residents of GPs showed that the income was inclined comparing to other specialties. Of the rural medical oriented

graduates, 73 (42.69%) expressed that they wanted to continue to work at the grass-roots level when the rural serve time was finished, which was lower than those who didn't want (57.31%). Among those who didn't want to work at the grass-roots level, they would plan to take part in the entrance exam for postgraduate (69.39%) and go to the better hospital or find a better position (74.49%).

Table 2 The situation of standardized training for residents of GPs

nents	Frequency	Percent(%)
in certification of the standardized training for residents of GPs. (n=263)		
s	243	92.40
	20	7.60
ecessary to launch the standardized training for residents of GPs.(n=263)		
cessary	180	68.44
utral	63	23.95
n- necessary	20	7.60
nly income during the standardized training for residents of GPs (RMB).(n=263)		
2000	76	28.90
00-3000	167	63.50
00-4000	17	6.46
000	3	1.14
seful to improve comprehensive ability of residents of GPs by standardized training. (n=263)		
s	101	38.40
ttle	85	32.32
	77	29.28
bilities of residents of GPs are improved by standardized training.(n=263)		
dical ethics	81	30.80
dical theoretical knowledge	188	71.48
nical technology	241	91.63
ciability	129	49.05
entific research ability	60	22.81
ncome of GPs is inclined comparing to other specialties.(n=263)		
s	84	31.94
	179	68.06
ural medical oriented graduate, I want to continue to work at the grass-roots level when I finish the time.(n=171)		
s	73	42.69
	98	57.31
easons for not continuing to work at the grass-roots level.(n=98)		
e low income and fewer good policy or the policy is not been plemented	83	84.69
e limited career development	88	89.80
e poor primary medical environment	66	67.35
e imperfect general practice service mode	78	79.59
e wide range of specialties of general practice	31	31.63
e low support of grass-roots level' leader for GPs	32	32.65
e main work is about public health but the clinic knowledge is less used	32	32.65
e big difference with schoolmates of other specialties	15	15.31
lan of not continuing to work at the grass-roots level.(n=98)		
e part in the entrance exam for postgraduate	68	69.39
to the better hospital or find a better position	73	74.49
ctice medicine individually	21	21.43
ange profession	27	27.55

The satisfaction analysis of standardized training for residents of GPs

As shown in Table 3, 104 (39.54%) residents were satisfied for monthly income, while 55 (20.91%) were unsatisfied. 30 (54.55%) of 55 residents thought the satisfied monthly income was between 3500 and 4000RMB. Among all the residents, more than half (62.74%) were satisfied for the teacher of standardized training for residents of GPs, while 28 (10.64%) were unsatisfied. Among 28 residents who were unsatisfied for the teacher, mainly unsatisfied sides were teaching method (89.29%) and teaching consciousness (82.14%). About the community training time duration (6 months) of standardized training, 98 (37.26%) residents were satisfied and 76 (28.90%) were unsatisfied. And the mainly unsatisfied sides for the community training time duration included that the number of community patients was fewer (69.74%) and the community teachers' teaching consciousness was not enough (59.21%).

Table 3 The satisfaction analysis of standardized training for residents of GPs

nents	Frequency	Percent(%)
atisfied for monthly income during the standardized training for residents of GPs.(n=263)		
isfied	104	39.54
utral	104	39.54
satisfied	55	20.91
atisfied monthly income (RMB) of residents of GPs.(n=55)		
3500	5	9.09
00-4000	30	54.55
00-4500	14	25.45
500	6	1.81
atisfied for the teacher of standardized training for residents of GPs.(n=263)		
isfied	165	62.74
utral	70	26.62
satisfied	28	10.64
nsatisfied sides for the teacher of standardized training for residents of GPs.(n=28)		
dical ethics	2	7.14
chnology level	20	71.43
e of teacher	18	64.29
ucation of teacher	15	53.57
aching consciousness	23	82.14
aching method	25	89.29
atisfied for the community training time duration (6 months) of standardized training for nts of GPs.(n=263)		
isfied	98	37.26
utral	89	33.84
satisfied	76	28.90
nsatisfied sides for the community time duration (6 months) of standardized training for nts of GPs. (n=76)		
e community time duration is too long	35	46.05
e number of community patients are fewer	53	69.74
e community equipment is imperfect	43	56.58
e community teachers are insufficient	37	48.68
e community teachers' ability is low	41	53.95
e community teachers' teaching consciousness is not enough	45	59.21

The survey of work situation and intention anlysis of GPs

As shown in Table 4, when the standardized training was finished, 227 (86.31%) residents had jobs and 36 (13.69%) had no job. Among all the medical institutions, 98(43.17%) worked in hospitals and 129 (56.83%) worked in primary medical and health institutions. 112 (59.34%) residents showed that their monthly income was between 3000 and 5000RMB and 95 (41.85%) residents' monthly income were lower than 3000RMB. Only 95 (41.85%) medical institutions set up the general medical discipline. Among those who had jobs, 9 (3.96%) residents didn't pass the qualification of practicing medicine. 68 (29.96%) residents were registered as GPs while 150 (66.08%) were not registered. The reasons for not been registered as GPs included that "the medical institutions and sanitary bureau didn't know the general medicine policy and didn't agree", "there was no difference in the detail work contents between GPs and other doctors", "the diagnosis and treatment mode at the grass-roots level was not suitable to the development of GPs" and "the residents didn't want to register and liked to engage in specialized medical direction", and the percentage of above reasons was 53.33%, 32.67%, 28.00% and 19.33% respectively. 107 (71.33%) residents indicated that they wanted to add the practice range of GPs on existing practice medical license.

134 (59.03%) residents were assigned department in the medical institution. Only 19 (14.18%) were assigned in the general practice department. Of all the 19 residents in the general practice department, their detail work contents mainly included "diagnosis and treatment of common diseases and frequently-occurring diseases and the referral of patients" (68.42%), "chronic disease management" (42.11%) and "health management" (42.11%). Among 115 residents who were not assigned in the general practice department, 50 (43.48%) residents showed their detail work contents were the same with GPs and 62 (53.91%) residents showed they wanted to be GPs. Of all the 227 residents, only 43 (18.94%) expressed that their colleges knew the standardized training for residents of GPs.

Table 4 The work situation and intention anlysis of GPs

nents	Frequency	Percent(%)
a job.		
s	227	86.31
	36	13.69
pe of medical institutions. (n=227)		
spital	98	43.17
nary medical and health institutions	129	56.83
ospital attributes. (n=98)		
neral hospital	81	82.65
ecialized hospital	8	8.16
spital of traditional Chinese and western medicine	9	9.18
nonthly income (RMB). (n=227)		
3000	95	41.85
00-5000	112	59.34
00-7000	13	5.73
000	7	3.08
eneral medical discipline is set up in medical institutions. (n=227)		
s	95	41.85
	132	58.15
egistered as a GP. (n=227)		
s	68	29.96
	150	66.08
hout qualification of practicing medicine	9	3.96
easons for not been registered as GPs. (n=150)		
e residents do not want to register and like to engage in specialized dical direction	29	19.33
e medical institutions and sanitary bureau do not know the general dicine policy and do not agree	80	53.33
e diagnosis and treatment mode at the grass-roots level is not suitable he development of GPs	42	28.00
ere is no difference in the detail work contents between GPs and other ctors	49	32.67
to add the range of GPs on existing practice medical license. (n=150)		
s	107	71.33
	43	28.67
ssigned department in the medical institution. (n=227)		
s	134	59.03
	93	40.97
pe of assigned departments. (n=134)		
neral practice department	19	14.18
ernal medicine department	48	35.82
gery department	27	20.15
necology and pediatric department	24	17.91
er departments	16	11.94
etail work contents in the department of general practice. (n=19)		
vention and healthcare	5	26.32
gnosis and treatment of common diseases and frequently-occurring eases and the referral of patients	13	68.42
ients' rehabilitation	3	15.79
onic disease management	8	42.11
alth management	8	42.11
er position	7	36.84
etail work contents of GPs and other doctors are the same. (n=115)		
s	50	43.48
	65	56.52
to be a GP in the future if I am a specialist physician. (n=115)		
s	62	53.91

	53	46.09

The satisfaction of work and attitude for GPs of college and local civilians

As shown in Table 5, 69 (30.40%) residents were satisfied for the work while 71 (31.28%) were unsatisfied. The lower percentage of residents (14.98%) was satisfied with their monthly income. And 58 (56.86%) showed their satisfied monthly income was between 5000 and 6500RMB. 94 (41.41%) expressed that leaders put the construction of general medicine and cultivation of GPs in an important position. Only 15 (6.61%) residents thought that the local civilians knew the standardized training for residents of GPs at the grass-roots level and only 39 (17.18%) residents thought that the local civilians recognized residents of GPs who have finished the standardized training. The main reasons for not recognizing residents of GPs concluded that “the local civilians had no idea to the standardized training for residents of GPs”, “the local civilians were used to see the familiar and experienced doctors”, “the local civilians thought residents of GPs were too young” and “the local civilians didn’t recognize the medical level of the grass-roots level”, and the percentage of above reasons was 90.38%, 78.85%, 69.23% and 15.38% respectively. Moreover, the main measures to increase recognition for residents of GPs who have finished the standardized training were that they thought the cultivation of GPs should be put in an important position (79.73%) and publicity of general medicine and GPs should be increased (78.85%).

Table 5 The satisfaction of work and attitude for GPs of college and local civilians

nents	Frequency	Percent(%)
atisfied for the work. (n=227)		
isfied	69	30.40
utral	87	38.33
satisfied	71	31.28
atisfied for the monthly income. (n=227)		
isfied	34	14.98
utral	91	40.09
satisfied	102	44.93
atisfied monthly income (RMB). (n=102)		
000	15	14.71
00-6500	58	56.86
00-8000	23	22.55
00	6	5.88
aders put the construction of general medicine and cultivation of GPs in an important position. 7)		
	94	41.41
	133	58.59
lleges know the standardized training for residents of GPs.(n=227)		
	43	18.94
utral	90	39.65
	94	41.41
civilians know the standardized training for residents of GPs at the grass-roots level. (n=227)		
	15	6.61
	212	93.39
civilians recognize residents of GPs who have finished the standardized training. (n=227)		
	39	17.18
utral	136	59.91
	52	22.91
easons for not recognizing residents of GPs who have finished the standardized training. (n=52)		
sidents of GPs are too young	36	69.23
local civilians are used to see the familiar and experienced doctors	41	78.85
local civilians have no idea to the standardized training for residents of s	47	90.38
local civilians don't recognize the medical level of the grass-roots level	8	15.38
ures to increase recognition for residents of GPs who have finished the standardized training. 7)		
cultivation of GPs should be put in an important position	181	79.73
health education lecture and the free diagnosis activities should be ried out	133	58.59
increase contract services for family doctors	120	52.86
increase publicity of general medicine and GPs	179	78.85
increase construction of primary medical units and the quality of grass-ts manager	35	15.42

Discussion

The survey found that the overall qualification rate of standardized training for residents of GPs is high. Most residents believed that it was necessary to carry out standardized training for residents. At the same time, residents believed that their clinical skills and medical theory knowledge were improved through standardized training.

However, residents' satisfaction for training, job and income was low and residents of GPs were not highly motivated by an inner drive. Among the rural order-oriented medical graduates in 2017 and 2018,

half of them expressed their reluctance to stay at the grassroots level when their service period is finished and more than half said that they would plan to take the postgraduate exam or go to hire better units and even someone wants to leave the medical position. They thought, at the grass-roots level, the income was low, the good policy was few or some good policy was not implemented well, the career development was limited and the GP service mode was imperfect.

Among the physicians who completed the standardized training of GPs, 13.68% of the physicians still had no work. More than half of the residents' work was in the primary care institutions. It also found that only 41.85% of the institutions established general medical or general outpatient clinics, and only 29.96% of the residents were registered as GPs in their institutions. When reasons for not registered as GPs were investigated, they showed that the local institution and the health bureau did not know the specific policies of the GP. In addition, the current scope of work of the GPs and other professional residents is not different, and some residents want to engage in specialist medical care.

Only 18.94% of residents believed that their colleagues understood the standardized training for residents of GPs, and more than half of the residents believed that the institution did not pay attention to the construction of general medicine and the training of GPs. The resident's overall satisfaction with the current work and the current job income satisfaction were not high. Residents expressed that local people did not understand the standardization training for residents of GPs, and the recognition of GPs was not high. The main reason might be that they were accustomed to finding familiar and experienced doctors and they believed that residents having attended the training were too young, and they did not trust the service capabilities of primary care units.

In Gansu Province of China, few studies have examined the effectiveness of standardization training for residents of GPs. One study indicated that the current grassroots doctors had unreasonable knowledge structure and weak service capabilities and in order to achieve the desired results, bold reforms in the primary health care system should be carried out and the welfare of grassroots doctors should be substantially improved[14]. Some studies expressed strengthening the standardized training and assessment of GPs and improving the service capacity of primary medical institutions was the only way to implement graded medical care and was the key work to promote grassroots health development[15-17]. Moreover, to ensure the quality of training and primary care and improve residents' motivation and self-regulation abilities, self-directed learning (SDL) could be advocated or faculty development programs be organized, and strong academic base and evidence-based guidelines should be developed[18]. We all know that some doctors have a good level of medical technology, but they do not necessarily train residents well. So it is necessary to improve the teaching level of teachers, especially the training methods. One study showed exploring the application of the instructor-based teaching method in training might be very useful[19]. After three years of training, the GPs are mainly located in the primary health care institution after graduation. Hence, one-sixth of the training time is required to be in the community. However, some residents may have gained previous experience as a junior doctor or in transferable work experience outside the medical field, trainees differ with regard to obtained competencies prior to residency and this may even lead to a different training time[18]. And from the literature, striving to

explore the collaborative co-construction model of the standardized training for residents of GPs in the clinical and community bases was suggested[20].

Strengths and limitations:

In Gansu of China, since the standardized training for resident have been launched in 2014, this is the first study to analysis the training situation and satisfaction for resident of GPs and work situation and satisfaction for residents of GPs who have finished standardized training. Nevertheless, there are some limitations that should be addressed. First, the survey was conducted when the residents of GPs graduated from standardized training soon after and their satisfaction of work was low. With years of work, the more work experience is gathered, the better treatment may be improved, and the satisfaction of work in primary medical units may be improved too. Therefore, the further survey could be carried out 3 years later. In addition, in the study, there was no special survey of primary medical workers for GPs or some policy, so the level of understanding of primary medical workers for GPs or some policy was not accurate.

Conclusions

In China, the current primary care institution's diagnosis and treatment model is in a transitional stage and the standardized training for residents of GPs is under gradual improvement and development. So the study might provide scientific theory and decision basis for cultivation of GPs. The good policies for GPs could be further formulated and executed, such as the treatment and attractiveness of GPs, the publicity work of standardized training and the construction of primary medical units. And also the local government should make efforts to solve the employment problem of GPs and let residents play roles in the grass-roots level.

Declarations

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Author Contributions

Conceived and designed the experiments: HC. Performed the experiments: HW JH DZ YW PW. Analyzed the data: HW JH DZ. Contributed reagents/materials/analysis tools: HW JH DZ. Wrote the paper: HW JH DZ.

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Availability of data and materials

The data generated and analyzed during the present study are not publicly available. However, they are available from the Ethics approval for scientific research of Gansu Provincial Hospital for researchers who meet the criteria for access to confidential data.

Ethics approval and consent to participate

All participants were provided with a plain language statement explaining the study and gave written informed consent in the questionnaire survey. The study was approved by Ethics approval for scientific research of Gansu Provincial Hospital (2018-148).

Competing Interests: The authors have declared that no competing interests exist.

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