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The Relationship of Perceived Organizational Support to Affective Commitment, Emotional Exhaustion and Turnover Intention - A Study of General Practitioners in Shanghai Community Health Centers in China

ZHANG Tao

Thesis submitted as partial requirement for the conferral of the degree of

Doctor of Management

Supervisor:

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March, 2018

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Declaration

I declare that this thesis does not incorporate without acknowledgment any material previously submitted for a degree or diploma in any university and that to the best of my knowledge it does not contain any material previously published or written by another person except where due reference is made in the text.

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作者申明

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Abstract

To understand the government incentive policy's impact on the work attitudes of the general practitioners (GPs) in community health service center and relationship of perceived organizational support (POS) to affective commitment (AC), emotional exhaustion (EE) and general practitioners' turnover intention (TI), this study used two waves of surveys and collected 1145 valid questionnaires from 45 community health centers in Pudong New Area of Shanghai. The analysis strategies include correlation analysis, variance analysis and structural equation modeling (SEM).

The results show that POS, AC are positively correlated with TI ($P<0.001$); EE is negatively correlated with POS, AC and TI ($P<0.001$). According to the SEM analysis, the POS has indirect effect on TI, whose impact paths include POS->EE->TI, POS->AC->TI, and POS->EE->AC->TI; the overall impact effect is -0.196. The EE can affect TI directly and indirectly, with overall impact effect being 0.286. AC has direct influence on TI with impact effect being -0.533.

The research results suggest that overall the government incentive policy has positive impact on the work attitudes of GPs, and POS has an indirect effect on TI, among which, EE and AC play mediating roles between POS and TI. EE can affect TI directly and indirectly; AC has direct impact on TI. Based on these results, implications and suggestions for managing and retaining the GPs in community health centers are discussed.

Key words: general practitioner; turnover intention; perceived organizational support; affective commitment; emotional exhaustion; Shanghai China

JEL: M54; M12

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Resumo

Para compreender o impacto da política de incentivos nas atitudes de trabalho de médicos de clínica geral (CG) nos centros de saúde comunitários bem como a relação com o apoio organizacional percebido (AOP) com a implicação afetiva (IA), a exaustão emocional (EE) e a intenção de saída (IS) por parte dos clínicos gerais, este estudo usou duas ondas de inquéritos e recolheu 1145 respostas válidas provenientes de 45 centros de saúde comunitários no Novo Distrito de Pudong em Shangai. A estratégia de análise de dados inclui a análise de correlações, a análise de variação e os modelos de equações estruturais (SEM).

Os resultados mostram que o AOP a a IA estão associados positivamente com a IS ($p<.001$); que a EE está correlacionada negativamente com o AOP, a IA e a IS ($p<.001$). De acordo com a análise SEM o AOP exerce um efeito indireto na IS, cujas vias de impacto incluem AOP->EE->IS, AOP->IA->IS, e AOP->EE->IS. O efeito total é de -0.196. A EE pode afetar a IS direta e indiretamente, com um efeito total de 0.286. A IA exerce um efeito direto na IS com uma magnitude de -0.533.

Os resultados deste estudo sugerem que há uma correlação positiva entre a política de incentivos e o AOP por parte dos CG e que o AOP exerce um efeito indireto na IS, no qual a EE e a IA desempenham um papel mediador entre o AOP e a IS. A EE pode afetar a IS direta e indiretamente, a IA tem um efeito direto na IS. Com base nestes resultados, discutem-se as implicações para a gestão e a retenção dos CG nos centros de saúde comunitários.

Palavras-Chave: clínico geral, intenção de saída, apoio organizacional percebido, implicação afetiva, exaustão emocional, Shangai China.

JEL: M54; M12

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摘 要

本研究以上海市浦东新区 45 家社区卫生服务中心所有全科医生作为研究对象，通过两轮问卷调查，获得有效数据 1145 份，研究政府的激励政策对社区卫生服务中心全科医生工作态度的影响，以及组织支持感对情感承诺、情绪枯竭和这一群体离职情绪的影响。数据分析方法包括验证性因子分析(CFA)、相关性分析、方差分析和结构方程模型(SEM)。

分析结果显示，组织支持感、情感承诺及离职倾向之间存在正相关关系($P<0.001$)；情绪枯竭与组织支持感、情感承诺及离职倾向存在负相关关系($P<0.001$)。结构方程模型分析结果显示，组织支持感对离职倾向起间接影响作用，影响路径包括：组织支持感→情绪枯竭→离职倾向，组织支持感→情感承诺→离职倾向，组织支持感→情绪枯竭→情感承诺→离职倾向，总体影响效果为-0.196；情绪枯竭对离职倾向的影响有直接影响和间接影响两部分，总体影响效果为 0.286；情感承诺对离职倾向则起直接影响作用，影响效果为-0.533。

研究表明，政府的激励政策对全科医生的工作态度有正向影响，而组织支持感间接影响离职倾向，情绪枯竭与情感承诺在组织支持感对离职倾向的影响中起中介作用，情绪枯竭对离职倾向有直接影响和间接影响两部分，情感承诺可直接影响离职倾向。基于上述结果，讨论了稳定社区卫生服务中心全科医生队伍的启示和建议。

关键词：全科医生；离职倾向；组织支持感，情感承诺，情绪枯竭，中国上海

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Contents

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List of abbreviation

POS	Perceived Organizational Support
EE	Emotional Exhaustion
AC	Affective Commitment
TI	Turnover Intention
GPs	General Practitioners
CPC	Communist Party of China
UNDP	United Nations Development Program
SEM	Structural Equation Modeling
MBI	Maslach Burnout Inventory
BM	Burnout Measure
SPOS	Survey of Perceived Organization Support
KMO	Kaiser-Meyer-Olkin
X^2	Chi-Square
DF	Degree of Freedom
EFA	Exploratory Factor Analysis
CFA	Confirmatory Factor Analysis
LSD	Least Significant Difference
CMIN/DF	Chi-square-DOF ratio
RMSEA	Root Mean Square Error of Approximation
NFI	Normal Fit Index
RFI	Relative Fit Index
IFI	Incremental Fit Index
TLI	Tack-Lewis Index
CFI	Comparative Fit Index
PNFI	Parsimonious Normed Fit Index

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Chapter 1: Introduction

1.1 Background

1.1.1 General practitioners in China

In 1950s, China began to establish and implement urban “labor health insurance”, “free medical service” and “new rural cooperative medical scheme”, marking the initial establishment of China's medical care system. The basic medical and health system in China has gone through four stages: emergence, formation, growth and development, whose goal gradually shifted from “universal coverage of primary health care” to “services accessible to the basic health care for everyone”. With the rapid development of economy and society, people's health consciousness has been generally enhanced. However, the limited supply of medical resources has struggled to meet people’s surging demands for medical services. The problem of “difficult and costly access to health care services” has become the hot issue of social concern (Yao & Xu, 2011).

At the beginning of the founding of People’s Republic of China, the overall health of the population was very poor and the basic medical health system was absent. The infant mortality rate was up to 200‰ and the maternal mortality rate was as high as 15‰, and the average life expectancy was only 35 years (Xiong, 2008). The construction of basic medical and health system in China started with the government-led health campaign, whose services were oriented towards workers and peasants and soldiers featuring prevention first and combination of Chinese and western medicine (Song, 2009). Although the old health system had long been in low development due to the restrains on economic and social development, remarkable progress was still made in health undertakings nationwide. In 1975, China's infant mortality rate had dropped to 41‰, and the average life expectancy had risen to 65 years (Liu, 2009). In the same period, the rural cooperative medical care, three-tier medical and preventive network and barefoot doctor, also honored as the three magic weapons for Chinese health evaluation by WHO, had provided solid foundations and experience for the change and development of the basic medical and health system in China (Li, 2007). Although the government-sponsored “labor health insurance”, “free medical service” and “new rural cooperative medical scheme” were basically in consistent with the then planned economic

system, there were still many serious problems such as short supply of medical services, poor medical facilities, chaotic hospital management and low efficiency of overall health care (Guo, 2008).

From 1978, based on the contents of primary health care and the experience of health campaign since the founding of New China, the Ministry of Health started to establish and develop national basic medical and health system. Later, the Communist Party of China (CPC) central committee and health departments successively issued the documents related to health reform. In 1979, three ministries including the Ministry of Health jointly issued the *Notification on Strengthening the Pilot Work of Hospital Economic Management* (Ministry of health, Ministry of Finance, & the State Labor Bureau of the People's Republic of China [PRC], 1979). In 1980, the Ministry of Health issued *Request for Instructions on Permitting Individual Physicians to Practice Medicine* (Ministry of Health of PRC, 1980). In 1984, the *CPC Central Committee Decision on the Reform of Economic System* was issued (The Third Plenary Session of the Twelfth CPC Central Committee of PRC, 1984). In 1985, the *Report on Several Policies Concerning Medical Reform* was issued (Ministry of Health of PRC, 1985). The issuance of these policy documents signaled that the health care reform in China had been started up on all fronts.

In this period, the China's health reform was focused on decentralization to enlarge the hospitals' autonomy right of self-management in an effort to improve their profits and efficiency. The policies in this period was aimed at creating relax environment for hospitals to enjoy more autonomy in operation. The policies focused on transforming the operation mechanism of medical institutions and strengthening the management of hospitals with economic means and improving the hospitals' operation efficiency; and meanwhile increasing effective supply of medical services, deepening market-oriented reform and changing the financing mode (Guo, 2008).

The issuance of the *Opinions of Several Issues Concerning the Expansion of Medical Services* in 1989 signaled the mode of market-oriented operation of medical services had been recognized and the health reform continued to make bold explorations towards marketalization (The Ministry of Health, the Ministry of Finance, the Ministry of Personnel, the State Bureau of Commodity Prices, and the State Administration of Taxation of PRC, 1989). After 1992, Chinese government set the goal of establishing the socialist market economy. The *Several Opinions on Deepening Health Reform*(The Ministry of Health of PRC, 1992)issued by the State Council proposed that the medical institutions should actively provide extended medical services such as expert clinic, operations performed by doctors

designated by patients, special care and special wards. The marketalization and commercialization of health services have become gradually clear. The market-oriented reform of the medical and health care system provides more choices and better treatments for patients, and also improves the delivery capabilities and level of health services. Although the government's investment is woefully insufficient, the health undertakings still witness rapid development (Guo, 2008).

The government's role as only policy maker but not fund raiser has, to some extent, caused medical institutions to excessively pursue the economic benefits while ignoring their public welfare. Due to the lack of effective supervision from government, most hospitals emphasize more on economic benefits while neglecting the medical ethics construction. In order to maximize the economic benefits, a large number of bad medical behaviors such as over-prescription, repeated examinations and excessive use of high-end medical equipments for minor diseases have led to excessively high medical expenses and increasingly tense doctor-patient relationship (Ma, Xu, Trigo, & Ramalho, 2017). Another serious problem resulting from the marketalization of medical services is about the inequity of health financing. According to the rankings of global health systems concerning financial equity measured by 2000 World Health Report, China ranked the fourth from the bottom. Currently, China's medical inequity has become the focus of social concern (Guo, 2008).

In this stage, the profit-chasing tendency of medical services driven by market mechanism has gradually weakened the public nature of public hospitals and greatly boosted the development of special services, resulting in the decreasing supply of primary health services. Meanwhile, with the decrease of government's health investment, medical institutions have to charge patients high medical fees in order to cover their operating costs (Yao & Xu, 2011). The phenomena such as "supporting medical services by overly expensive drugs prescriptions" and overtreatment have become very widespread. The soaring medical costs and the problem of "difficult and costly access to health care services" have become increasingly prominent and the fairness of health services has been gradually eroded.

The outbreak of SARS in China in 2003 has fully exposed the fragility of China's public health care system. Therefore, it has become imperative for China's basic medical system to choose the path of rapid development and transformation. In July 2005, based on the summary and reflections on the experience of health reform over the past years, a report published by the Development Research Center of the State Council concluded that the current health system reform in China was basically unsuccessful. In September of the same year, the 2005 Human Development Report published by the Representative Office of UNDP

in China drew the same conclusion. In June 2006, the working team tasked with the research of major issues concerning deepening the medical system reform was set up by the CPC Central Committee and the State Council.

On June 4 2009, the CPC Central Committee and the State Council launched a new round of medical and health care reform (referred to as "New Medical Reform") and successively issued the documents such as the *Opinions of the CPC Central Committee and the State Council on Deepening the Health Care System Reform* and *Recent Key Implementation Plans of Health Care Reform (2009-2011)* (referred to as "Opinions") in an attempt to solve the problem of "difficult and costly access to health care services" mostly complained by the people (the State Council of PRC, 2009). The implementation of the "New Medical Reform" indicates that China's basic health care system has entered a period of construction.

The "New Medical Reform" set the goal of establishing the basic medical and health system covering all urban and rural residents and realizing the universal coverage of basic medical services by 2020 and meanwhile established the basic idea of providing the primary health services as public goods for people (Zhang, 2012). In 2010, several ministries jointly issued the *Plans of Constructing the GP-focused Talents Team in Basic-Level Medical Institutions*, in which it proposes to greatly strengthen the cultivation of grassroots medical talents through a variety of ways such as deepening higher medical education reform and carrying out in-service continuing education and plans to provide 300,000 general practitioners for grassroots medical institutions by 2020 so that there are sufficient health human resources to ensure the minor diseases can be treated in grass-roots hospitals (The National Development and Reform Commission, the Ministry of Health, the State Commission Office of Public Sectors Reform, the Ministry of Education, the Ministry of Finance, and the Ministry of Human Resources and the Social Security of PRC, 2010). *The Guiding Opinions of the State Council on the Establishment of General Practitioners System* issued by the State Council in 2011 required to preliminarily establish vigorous and vital general practitioners system, basically form the unified and standard GPs training mode, build up the service mode of "first treatment in grassroots hospitals" and achieve the goal of a ratio of 2-3 qualified GPs per 10,000 urban and rural inhabitants. The 18th National Congress of the Communist Party of China pointed out the medical services should follow the principles of "putting prevention first, prioritizing the medical needs in rural areas and laying equal stress on traditional Chinese medicine and Western medicine" (The State Council of PRC, 2009). Under the requirements of "ensuring universal coverage of basic medical services in

China, promoting the public hospitals reform with focus on county-level hospitals, and improving basic drugs system and operation mechanisms of basic-level medical institutions", safe, effective, convenient and affordable public health and basic medical services should be accessible to all Chinese people (Shen et al., 2013).

The *Guiding Opinions on Promoting the Construction of the Hierarchical Medical System* issued by the General Office of the State Council in 2015 requires to further strengthen the construction of GP-focused grassroots health talents team and gradually improve the hierarchical treatment mode featuring first treatment in grassroots hospitals, two-way referral, acute and chronic diseases being treated in different levels of hospitals and active coordination between high-level and grassroots hospitals in an effort to improve the utilization efficiency of medical resources and overall profits (General Office of the State Council of PRC, 2015). Since 2016, the documents such as *Notice of The National Health and Family Planning Commission on Issuing the 2016 Major Work Points in Health Planning* (The National Health and Family Planning Commission of PRC, 2016) and *Notice on Issuing the Guiding Opinions Concerning Promoting the Contractual Services of Family Doctors* (The Health Reform Office of State Council, the National Health and Family Planning Commission, the National Development and Reform Commission, the Ministry of Civil Affairs, the Ministry of Finance, the Ministry of Human Resources and Social Security, & the State Administration of Traditional Chinese Medicine of PRC, 2016) emphasized the adherence to the basic principles of "ensuring universal coverage of basic medical services in China, promoting the public hospitals reform with focus on county-level hospitals, and improving basic drugs system and operation mechanisms of basic-level medical institutions" in a bid to construct GP-focused grassroots health talents cultivation system. Thus, the general medicine at the grassroots level has been further promoted.

The starting point and ultimate goal of the new round medical reform aims to ensure the universal coverage of public health and basic medical services, especially the continued supply and guarantee of health services in rural and remote areas. Therefore, the government has constantly increased investment in the health services; medical service providers have made unprecedented improvements in human resources, financial conditions and medical materials and people's demand for health services has been greatly met. And among these factors, the health workers have played a pivotal role in guaranteeing national health services. According to statistics, by the end of 2015, the total number of GPs in China reached 189,000 (The National Health and Family Planning Commission of the PRC, 2016). Nevertheless, the shortage of medical talents across China especially in the rural areas remains the major

constraint which impedes the universal coverage of the basic medical services. Therefore, the important tasks formulated in the work plan of health services, family planning and technological education in the future are to ensure the employment of the first batch of government-sponsored medical graduates to work in targeted rural areas and provide job-transfer training for GPs and offer free education to medical students who will work in targeted rural areas after graduation in an effort to increase the number of GPs to 300,000 by 2020 (The National Development and Reform Commission of PRC et al., 2010).

1.1.2 Importance of General Practitioners

Since the introduction of the concept of general medicine in 1980s, China has given priority to the development of general practitioners as part of efforts to cultivate health talents for grassroots institutions. The grassroots medical institutions play a key role in providing basic medical and health services. Among the three levels of medical institutions, the community health centers or stations are at the lowest level and thus generally set up in the communities or towns, providing immediate health services for community residents and outnumber any other higher levels of medical institution. Meanwhile, they play a crucial connecting role in health services and preventive health care (Zhang & Shen, 2014). The GPs, as the key implementers of community health services, have played an irreplaceable role in the whole medical system by providing continuous and comprehensive medical services such as medical care, health maintenance and diseases prevention for individual residents and their families in the community and the society as a whole, which can be manifested in the following three aspects:

First, the GPs can provide basic health services. With clinical knowledge, they can provide primary diagnosis and treatment services for community residents with diseases such as common diseases and frequently occurring diseases, thus meeting the health needs of most community residents. Efforts to treat most patients with minor diseases in community health centers have remarkably relieved the issue of “difficult and costly access to health care services”.

Second, the GPs can provide basic public health services. According to the *Opinions on Promoting the Progressive Equalization of Basic Public Health Service* jointly issued by the Ministry of Health, Ministry of Finance and National Health and Family Planning Commission in 2009, the community health centers are required to provide basic public health services for community residents, health services covering establishment of residents’ health records, health education, vaccination, infectious diseases prevention, treatment of

hypertension, diabetes and other chronic diseases and heavy mental illness management, child care, maternal health care, and health care for the elderly (The Ministry of Health, Ministry of Finance, & the National Health and Family Planning Commission of PRC, 2010). All these services are actually provided by general practitioners.

Third, the GPs can provide continuous and comprehensive community health services. Working in the community health centers close to the residential areas has helped general practitioners to gain a better understanding of local living environment, residents' family conditions and patients' diseases. Thus, they can provide continuous and comprehensive resident-centered community health services and play the role as "health gatekeeper" for the community residents. In 2010, Shanghai first carried out the reform of community health services with focus on responsibility system of family doctors. Under this system, as the service contractors, the GPs began to play the important role of "health gatekeeper" for community residents.

Therefore, great efforts in constructing GPs-focused talents team for community health centers can not only substantially reduce the medical costs of residents and effectively alleviate the issue of "difficult and costly access to health care services", but provide long-term and safe community health services for community residents.

As the direct providers of community-level health care, the number and quality of general practitioners directly determines the service volume, quality and results of community health services. *The Opinions of the CPC Central Committee and the State Council on Deepening the Health Care System Reform* (also referred to as "New Medical Reform") (The CPC Central Committee & the State Council of PRC, 2009) explicitly proposed that great efforts should be made to strengthen the construction of grassroots health talents team with emphasis on the cultivation and training of GPs; the preferential policies should be formulated to encourage excellent medical talents to work in rural areas, urban community health centers and central and western regions. For health workers who have long worked in the low-level positions in rural and urban grass-roots health centers, the preferential policies should be offered in favor of their promotion, on-the-job training as well as salary and welfare.

1.1.3 Challenges of developing GPs in Shanghai Pudong New Area

As the forefront of China's medical reform, the development of the basic medical and health undertakings of Shanghai is particularly important. From 2009 to the end of 2013, the number of its community health centers has increased from 640 to 1,009 with the number of staff mounting from 29,117 to 32,868 (Shanghai Municipal Statistics Bureau, 2010, 2014).

Although the number of community health centers and medical staff has increased significantly, it is still difficult to meet the increasingly growing needs of basic medical and health services in Shanghai. Therefore, under the requirements of "ensuring universal coverage of basic medical services in China, promoting the public hospitals reform with focus on county-level hospitals, and improving basic drugs system and operation mechanisms of basic-level medical institutions", it is an important work to take effective measures to introduce a large number of excellent medical talents to community health centers (including village clinics) to ensure the sustainable development of the basic health undertakings.

According to the Health Report of Pudong New Area 2012, in accordance with the international standard, each GP should be tasked with providing health services for 2,500 residents, which means that Pudong New Area needed at least 2,000 GPs to take care of its 5,175 thousand of permanent residents in order to fully implement family doctor responsibility system in 2011. However, with only 869 registered GPs in 2012 as indicated in the report, the district was still in need of over 1100 GPs (Shen & Yu, 2012). Therefore, the number of community general practitioners in Pudong New Area of Shanghai is currently far from enough to meet the health needs of the community residents.

Because there are still many problems concerning compensation mechanism and operation mechanism in the grass-roots medical institutions such as insufficient financial support, weak infrastructure, poor working conditions and low wages, it is difficult to attract medical talents to work in the grass-roots medical institutions and the turnover rate of current GPs is relatively high.

Take the Pudong New Area of Shanghai for example, from 2011 to 2015, 168 GPs were recruited but 68 had resigned with the net inflow of medical talents being 100 (Health Human Resources Service Center of the Pudong New Area of Shanghai). Pudong New Area is classified into four categories of areas in accordance with its development level, namely Category A, B, C and D. Category A refers to remote rural areas with exclusive village committees (including 14 community health service centers); category B refers to the rural areas with more village committees than urban residential committees (including 8 community health service centers); category C refers to the outskirts with more urban residential committees than village committees (including 11 community health service centers) and category D refers to the urban areas with exclusive urban residential committees (including 13 community health service centers)(The Health and Family Planning Commission of the Pudong New Area in Shanghai, 2014a). The inflow and outflow of GPs from 2011 to 2015 is shown in Table 1-1 and the net inflow of GPs is as depicted in Figure 1-

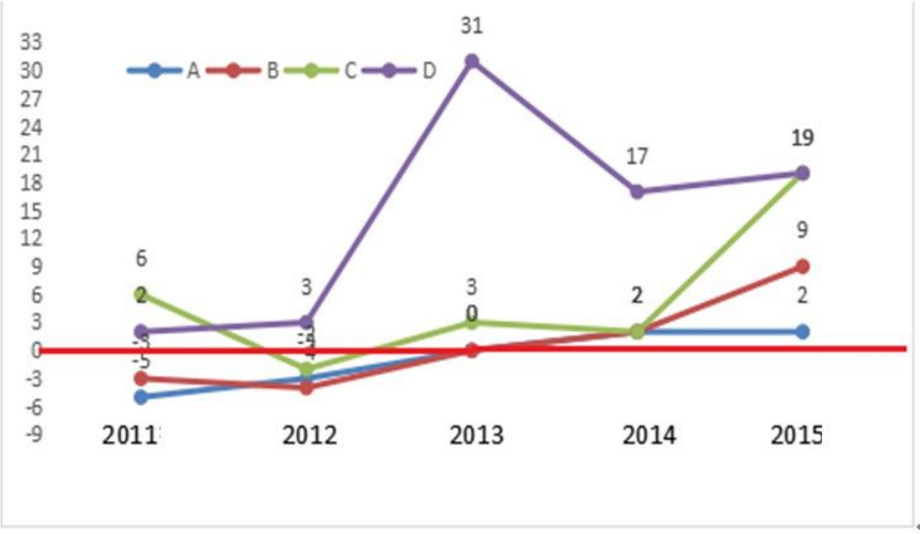
1.

Table 1-1 Recruitment and turnover of GPs in Pudong New Area from 2011 to 2015

Time	Category A		Category B		Category C		Category D	
	Recruited	Turnover	Recruited	Turnover	Recruited	Turnover	Recruited	Turnover
2011	3	8	2	5	7	1	2	0
2012	2	5	0	4	1	3	6	3
2013	3	3	3	3	9	6	37	6
2014	8	6	5	3	3	1	23	6
2015	2	0	12	3	19	0	21	2
Total	18	22	22	18	39	11	89	17

Source: Health Human Resources Service Center of Pudong New Area of Shanghai

Figure 1-1 Inflow and Outflow of GPs in Pudong New Area from 2011 to 2015



Source: Health Human Resources Service Center of Pudong New Area of Shanghai

1.1.4 Eight Incentive Policies for Medical Professionals in Rural Districts in Shanghai

The turnover of community GPs has greatly reduced the efficiency of introducing GPs-focused medical talents by grassroots medical institutions, which negatively affects the construction of GPs-focused medical talents team and the establishment of good relationship between community health centers and residents, thus greatly limiting the volume and quality of community health services.

In response, on July 1, 2014, the Health and Family Planning Commission of the Pudong New Area in Shanghai implemented the Eight Incentive Policies for Further Strengthening the

Development of Health Workers in Rural Areas (hereinafter referred to as "Eight Incentive Policies" (Health and Family Planning Commission of the Pudong New Area in Shanghai, 2014b). The Eight Incentive Policies includes the following eight aspects: (1) giving special rewards to health workers in the rural areas; (2) stepping up efforts to introduce the high-caliber medical professionals; (3) encouraging university graduates to work in the rural areas; (4) urging the flow of clinical medical personnel into the rural areas from urban areas;(5) encouraging extended retirement age and post-retirement employment; (6) improving the post appointment system; (7) strengthening the talents training (full reimbursement of in-service education expenses); (8) solving the housing problems of rural health workers.

According to the "Eight Incentive Policies", the communities in Pudong New Area in Shanghai are classified into four categories, namely, category A (remote rural areas), category B (rural areas), category C (outskirts areas) and category D (urban areas) (The Health and Family Planning Commission of the Pudong New Area in Shanghai, 2014b). The preferential policies apply principally to medical staff with high professional titles, high education degree and senior administrative posts or full-time general practitioners in categories A, B and C, which provide high salary, job subsidies, professional trainings and housing funds for them. According to the health policies, the preferential measures gradually weaken from A to D. Relatively speaking, medical employees in category A benefit most from the policies. The specific preferential measures for four categories of areas are listed in Table 1-2.

According to the Eight Incentive Policies, the health workers working in the category A, B and C in Pudong New Area will be given extra subsidies according to their performance assessment in order to attract more medical talents to work in the rural areas in order to speed up the construction of rural health talents team. The financial incentives such as special rewards for rural medical talents, supplemented by preferential policies such as talents training, extension of retirement age, post-retirement employment and post appointment are aimed at enabling the rural areas of the Pudong New Area to successfully introduce and make good use of health talents and meanwhile retain them with higher wages, organizational support, and good career prospects.

Therefore, from the perspective of health human resources, the implementation of the "Eight Incentive Policies" aims to alleviate the brain drain of rural health workers and ensure sustained, high quality and adequate supply of basic medical and basic public health services to meet the health needs of the residents.

Table 1-2 Specific preferential measures in “Eight Incentive Policies” for four categories of areas

Specific preferential measures	Target groups	A	B	C	D
Special reward for rural healthcare talents	GPs, public physicians, clinical physicians, medical technical personnel	Provide 6,000 yuan, 5,000 yuan or 2,000 yuan performance rewards for different kinds of rural healthcare talents	Provide 4,000 yuan, 3,000 yuan or 1,500 yuan performance rewards for different kinds of rural healthcare talents	Provide 2,000 yuan, 1,500 yuan or 1,000 yuan performance rewards for different kinds of rural healthcare talents	/
Introduction of high-caliber healthcare professionals	Healthcare professionals with vice senior or senior titles	Provide one-off bonus (200,000 yuan for healthcare professionals with senior title, 150,000 yuan for healthcare professionals with vice senior title)	Provide one-off bonus (150,000 yuan for healthcare professionals with senior title, 100,000 yuan for healthcare professionals with vice senior title)	Provide one-off bonus (100,000 yuan for healthcare professionals with senior title, 50,000 yuan for healthcare professionals with vice senior title)	/
Encourage college graduates to find employment in rural areas	Medical graduates with bachelor degree or above and at least one year of working experience; pass the annual performance assessment	One-off bonus (30,000 yuan)	One-off bonus (20,000 yuan)	One-off bonus (10,000 yuan)	/
Promote the flow of clinical professionals from urban areas to rural areas	Clinical professionals with at least three years of working experience from the second-level or third-level hospitals or category D	One-off bonus (70,000 yuan, 100,000 yuan and 50,000 yuan for clinical professionals from the second-level hospitals, third-level hospitals and category D respectively)	One-off bonus (50,000 yuan, 70,000 yuan and 40,000 yuan for clinical professionals from the second-level hospitals, third-level hospitals and category D respectively)	One-off bonus (30,000 yuan, 50,000 yuan and 30,000 yuan for clinical professionals from the second-level hospitals, third-level hospitals and category D respectively)	/
Encourage to extend the retirement age and post-retirement re-employment	Medical personnel with intermediate title or above; re-employment subsidies/month	Monthly re-employment subsidies (4,000 yuan, 4,500 yuan and 5,000 yuan respectively for post-retirement employees with intermediate title, vice senior title and senior title)	Monthly re-employment subsidies (3,500 yuan, 4,000 yuan and 4,500 yuan respectively for post-retirement employees with intermediate title, vice senior title and senior title)	Monthly re-employment subsidies (3,000 yuan, 3,500 yuan and 4,000 yuan respectively for post-retirement employees with intermediate title, vice senior title and senior title)	/

Source: Interim Measures for Further Strengthening the Development of Healthcare Workers in Rural Areas by Shanghai Pudong New Area

1.2 Research objectives and research questions

The overall research objectives are twofold. One is to understand the effect of the "Eight Incentive Policies" on GP's work attitudes and their turnover intention and the other to examine the relationships between POS, EE, AC and TI in an effort to find methods and formulate policies to reduce the turnover of general practitioners in community health centers.

The main research questions of this study include:

(1) After the "Eight Incentive Policies" are put in place, to what extent, GPs perceive the policies as organizational support and what are the current level of the perceived organizational support, emotional exhaustion, emotional commitment and turnover intention of GPs in Pudong New Area of Shanghai?

(2) How does perceived organizational support influence emotional exhaustion, emotional commitment and ultimately turnover intention of GPs?

1.3 Research methods

This study targets the community health center GPs in the Pudong New Area of Shanghai as the research objects. The questionnaires are conducted in two phases. SPSS and AMOS software are used to test the theoretical hypothesis models.

1.4 Thesis structure

The thesis falls into six parts: overview, literature review and theoretical framework, research methods, research results, discussions, conclusions and suggestions. The specific content of each part is as follows:

Chapter 2: Literature review and theoretical framework. First, conduct a review of literature on the theories of turnover and turnover intention as well as their theoretical models; summarize the antecedents and outcome variables of turnover intention; summarize the relevant variables of turnover intention; sum up the relevant variables of turnover intention, including perceived organizational support (POS), emotional exhaustion (EE) and affective commitment (AC) and review the research progress of the concepts, constructs, antecedent variables and outcome variables; finally, based on the literature review, put forward the theoretical hypotheses and research model of the study.

Chapter 3: Research design and methods. First, present the research objects and report field data collection procedure; second, analyze the applicability of the scales of GPs' POS, EE, AC and TI, including reliability and validity analysis, data analysis methods and analysis tools.

Chapter 4: research results. First, describe the basic characteristics of general practitioners, including individual characteristics, work and organizational characteristics, as well as the family support and community environment; second, examine the associations of GPs' individual characteristics, work and organizational characteristics and family support and community environment with the perceived organizational support, emotional exhaustion, affective commitment and turnover intention; third, analyze the correlations between the perceived organizational support, emotional exhaustion, affective commitment and turnover intention and use structural equation model to verify the impact paths of organizational support, emotional exhaustion and affective commitment on GPs' turnover intention; fourth, analyze the association of the "Eight Incentive Policies" with the GPs' organizational support, emotional exhaustion, affective commitment and turnover intention and put forward the GPs' suggestions to the "Eight Incentive Policies".

Chapter 5 and 6: discussion, conclusions and suggestions. In chapter 5, the research results are discussed; secondly, based on the discussion of the research results, the practical significance of the study is further clarified. On this basis, the research conclusions are drawn and suggestions to the corresponding policies are put forward and analyzed in Chapter 6.

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Chapter 2: Literature review

2.1 Turnover intention

2.1.1 Concept of turnover

Turnover refers to the employee's act of terminating the employment relationship with the employer and leaving the organization. Turnover is broadly and narrowly defined by academic scholars. In the broad sense, turnover refers to labor mobility between two workplaces (inter-regions mobility), between two jobs (job transfer), or between two industries (inter-industries mobility) as well as the staff inflow into and outflow from a certain organization such as government institutions, enterprises and factories (Song, 2014). According to Zhang (1998), turnover is concerned with the social mobility from the perspective of sociology, which includes regional mobility, change of jobs and employers, and inner-agency position transfer (Zhang, 2011). Price (2001, p.600) believed that turnover means "the movement of members across the boundary of an organization". In the narrow sense, turnover refers to "the process through which an individual who has gained material benefits from the organization terminates his/her membership" or "the giving-up of membership from an organization by an individual who has been rewarded with wages" (Zhang, 2011). The definitions mentioned above interpret turnover as the transfer of job from one organization to another.

Apart from the broad and narrow definitions, turnover is traditionally classified into two types, voluntary and involuntary. Voluntary turnover, also known as "resignation", refers to the case that an employee makes the decision to leave the organization self-willingly; involuntary turnover, including dismiss or layoff, occurs when the employer makes the decision to discharge an employee against his/her self-willingness (Zhu, 2006). However, some scholars challenge the application of this classification method in research. Dalton, Krachardt and Porter (1981) indicated that the traditional categorization overstates the influence of turnover on the organization.

In order to remedy the defects of the traditional classification that is simply based on employee's willingness, on the basis of the traditional classification, scholars further explore

the notion of turnover. Dalton et al. (1981) categorized the voluntary turnover into two types, namely functional and dysfunctional according to staff performance, the employer's willingness to retain the employee and the difficulty in replacing the employee. The functional turnover occurs when a low-performing employee leaves the organization willingly, which is conducive to the organization; dysfunctional turnover occur when a high-performing employee attempts to leave the organization, which can be potentially costly to the organization. Abelson (1987) classified turnover into four types according to the employee's willingness and whether the turnover can be avoided: first, the voluntary turnover that can be avoided through the efforts of the organization, for example, the voluntary turnover as a result of dissatisfaction with wages, working conditions and leaders; second, voluntary turnover that cannot be avoided albeit the efforts of the organization, which is caused by marriage, pregnancy, immigration and child care; third, the involuntary turnover enforced by the organization such as expulsion, dismissal and structural layoff; fourth, the involuntary turnover that is caused by illness and death, and which is beyond the control of the organization.

In addition, Turner (1960) and Rosenbaum (1984) divided labor mobility into contest mobility, sponsored mobility and tournament mobility according to career mobility classification. Contest mobility is driven by promotion; sponsored mobility is driven by efficiency with focus on the role played by special training and socialization in such mobility; and tournament mobility offers all employees starting opportunities followed by continuous selection of employees to increase efficiency (Huang, 2004). Based on the difference in the staff turnover behavior, Xiao (2014) classified turnover into the overt turnover and the covert turnover. The overt turnover means an employee has already left the organization while the covert turnover indicates that an employee has the intention to leave the organization but is yet to leave.

The definitions of turnover mentioned above are all descriptions of turnover behavior. Given that turnover behavior, especially the dysfunctional turnover of voluntary turnover will bring negative effects such as rising costs and output reduction to organizations, scholars have actively studied the phenomenon of employees' turnover, in an attempt to find out the reasons behind it. However, it is difficult to collect data for the direct study of turnover behavior through comparing and analyzing the rate of employees' turnover in different organizations or conducting a long-term observation and analysis on the rate of employee turnover and on the turnover behavior of individual employees within an organization. Therefore, most scholars have shifted their attention from turnover behavior to other variables (such as turnover

intention and occupational burnout), so as to indirectly explain and predict turnover behavior. Most researchers believe that turnover intention is the most appropriate variable to predict turnover behavior (Zhou, 2012).

Turnover intention (TI) is different from turnover behavior. The former refers to the psychological tendency while the latter is actual behavior. Porter and Steers (1973) believed that turnover intention is employees' next avoidance behavior after experiencing dissatisfaction. Mobley (1977); Mobley, Horner and Hollingsworth (1978) hold the view that after experiencing dissatisfaction, employees tend to leave their jobs. And turnover intention, following employees' turnover thought, job hunting and comparison of other job opportunities, is the last step before the actual turnover behavior occurs, which comprehensively manifests the individuals' dissatisfaction with work, turnover thought, intention to find other jobs and the possibility of having obtained other jobs. Bedeian and Armenakis (1981) thought that turnover intention indicates individuals' intention to leave the present job and seek other job opportunities. Chinese scholars tend to regard turnover intention as employees' attitude, thought or willingness to leave an organization. It indicates the possibility for an individual to choose to resign in a certain period of time, which can be utilized to measure the extent to which employees want to leave the organization (Zhang, 2013).

2.1.2 Influencing factors of turnover intention and measurements

Employees' turnover behavior, especially the dysfunctional turnover of voluntary turnover will bring negative effects to organizations. Therefore, scholars at home and abroad have actively studied the antecedent variables of employee turnover, in an attempt to explain and control employees' turnover behavior. Comprehensively speaking, the antecedent variables of turnover can be classified into three categories: individual factors, factors related to work and organization and environmental factors.

(1) Individual factors

Employees' age and length of service in an organization are in correlation with turnover. In a study on turnover intention of nursing staff, Tian, Zhao and Xiao (2013) claim that young nursing staff shows higher turnover intention. However, in another study of the nursing staff in Shanghai, Ran (2014) argues that the older age mainly contributes to the employees' resignation.

Gender difference leads to different turnover rate. By analyzing urban public medical institutions, Zhang (2011) suggests that male doctors have higher turnover intention than their

female counterparts. With a study of the turnover intention of the community medical and healthcare workers in five provinces, Song (2014) contends that male medical and healthcare workers have higher turnover intention than female, however, the difference is not statistically significant.

Differences in education background lead to different cases of employee turnover. Song (2014) analyzed the turnover intention of the community medical and healthcare workers in five provinces and discovered that employees with higher professional title (vice senior and above) and academic degrees (bachelors' degree and above) have higher turnover intention.

Family also serves as an influential factor to employees' turnover. The opinions and support of employees' spouse exert certain influence on employees' turnover behavior. Those who have their spouse's support are with obviously lower turnover intention. Cary Cherniss (1989) argue that encouragement from family members and certain family needs have significant influence on employees' turnover behavior. Ahituv and Lerman (2011) claim that a new marriage reduces the possibility of changing a job by approximately 5% while for a lasting marriage, it is about 6%. Through the analysis based on 135 employees' turnover reports from Peking Union Medical College Hospital, Tang, Li, Hu, and Ye (2010) assert that 21.8% of doctors' turnover is resulted from family factors such as managing to live together with their spouse, going back to their hometown to attend to their family members, accompanying their husband or children abroad and giving birth to a child. In addition, scholars point out that other individual factors such as personality traits, professional titles, intelligence, and personal interests also influence employees' turnover behavior (Zhou, 2012; Song, 2014).

(2) Work and organizational characteristics

Salary is one of the significant factors that determine whether an employee resigns or stays with the organization, which has been verified by many studies in China. For example, through analyzing the turnover intention of doctors from urban public medical institutions, Zhang (2011) reveals that doctors with an average income of over 3000 yuan per month have obviously lower turnover intention than those who earn less than 3000 yuan, and doctors with an average income between 1001 and 2000 yuan per month have the highest turnover intention. Ma and Trigo (2008) suggest that the career prospects and wages can affect employee job satisfaction, thus influencing employees' turnover intention. In most cases, the career prospects are more important than wages to employees. Therefore, managers should shift their focus from employees' wages to their growth opportunities (Ma & Trigo, 2008). Studies also suggest that the role stress of young medical staffers is significantly and

positively correlated with turnover intention (e.g. Zhou, 2012; Yan & Li, 2015). Young medical staffers with higher level of role stress have higher turnover intention. Zhu, Gao, An, and Fu (2015) reveal that occupational stress is the main influencing factor of turnover intention of medical staff. Therefore, managers should take multiple measures to improve the social support for medical staff in order to minimize the influence of occupational stress on turnover intention.

In recent years, more and more scholars have summarized up the aforementioned influential factors of turnover behaviors and begin to interpret and predict the employee turnover behavior from social and psychological perspectives. Their studies suggest the social and psychological factors such as organizational support, job burnout and organizational commitment have significant influence on employee turnover intention and behavior.

Organizational support, also known as perceived organizational support by employees (POS), was first put forward by Eisenberger, Huntinton, Hutchison, and Sowa (1986), which refers to the degree to which employees believe that their organization values their contributions and cares about their well-being. In China, research of POS has been conducted since 2000 and some relevant theories have been elaborated and partly verified, among which, the negative effect of POS on turnover intention has been proved by some scholars. Zhou (2012), through comparing and analyzing relevant studies at home and abroad, contends that POS is significantly and negatively correlated with the turnover intention. By comprehensively comparing the foreign and Chinese relevant studies, Shao (2014) reveals that such variables as employee participation, position or career prospect, training, salary and other specific human resource management measures, these measures as a whole, supervisor support, leader-member exchange, employee relationships, organizational justice, procedural justice, interpersonal justice, voluntary and independent organization and other factors concerning voluntariness and fairness, characteristics of employees and the organization will all exert certain influence on the POS. Based on social exchange theory, POS can trigger the employees' sense of responsibility and reciprocation, thus reducing employee turnover intention. Gu, Yang, Gu and Tang (2017) suggest that POS increase employees' felt obligation to help the organization and make them perform better to reciprocate received rewards and favorable treatment, thus becoming more apt to stay with the organization.

Job burnout, also known as occupational burnout, was first put forward by American clinical psychologist Freudenberger (1974, p.159), who defined it as "to fail, wear out, or become exhausted by making excessive demands on energy, strength, or resources" and applied it in mental health field. According to Escribà-Agüir, Martín-Baena and Pérez-

Hoyos(2006), because of the special nature of nursing services, the nursing staffers have been exposed to a higher risk of job burnout. Therefore, the relationship between job burnout and turnover intention has become the focus of academic research. Based on the research results by Li (2014), the turnover intention of ICU medical staff in the third-level hospitals is at high level and their job burnout is at medium or above level; the job burnout can directly predict the turnover intention. According to the study among nursing staff by Zhang (2016), the high amounts of work always result in high level of job burnout and make them feel exhausted and disengaged from their work; meanwhile, the turnover intention is significantly and positively correlated with job burnout, so nursing staff with burnout has high turnover intention and are more likely to resign. However, some studies hold different opinions on the job burnout of medical staff. For example, Yang and Zhang (2015) argue that compared with the interpersonal relationship in large hospitals, the workplace peer support in small community health centers is relatively strong and therefore the physician job burnout and turnover intention are generally in low level. However, job burnout is still found to have a direct and positive effect on turnover intention.

Organizational commitment (OC) means an employee psychologically attaches to, show loyalty to and have reliance on an organization (Wu, 2013). Organizational commitment was first studied by American sociologist Becker (1960) in 1960 and the concept was introduced into China in 1990s (Le, Yin, & Wang, 2006). Similar to job satisfaction, OC has not been universally defined thus far. Despite this, scholars have qualitatively explored and quantitatively validated the antecedents of OC and their impact on turnover behavior from different perspectives. Zhu (2007) asserts that personal factors, work factors and organizational factors have a certain influence on OC after she reviewed the relevant studies on OC. Many scholars such as Steers (1977), Michaels and Spector (1982) ,Sheridan and Abelson (1983), Huang (2004) and Liu and Pei (2008) also contend that the there is significant and negative correlation between organization commitment and turnover intention, namely, the higher OC, the lower TI. Porter, Steers, Mowday and Boulian (1974) believe that, compared with job satisfaction, the OC is a holistic and persistent evaluation on how employees feel about their organizations thus playing a key role in employees' decision-making on turnover.

Besides, some other factors have an influence on staff's turnover or not, such as work autonomy (Gaertner,1999), cohesion of organizational members (Bluedorn,1980), workplace peer support, supervisor support (Currivan,1999), team climate (Kivimäki et al,,2007), frequency of communication within organizations (Gong, Chow, & Ahlstrom,2011), job

embeddedness (Gong et al., 2011; Li, 2013), business nature, industry characteristics, company size (Zhao, Liu, & Peng, 2005), organizational culture (Wang & Li 2006), organizational justice (Price & Mueller, 1981; Kong, 2010; Li, Shang, & Gao, 2011), occupational risk(Li et al., 2011), type of organizational human resources and employees' perceptions towards organizational human resources (Ma & Trigo, 2012; Ma, Silva, Callan, & Trigo, 2016; Ma et al., 2017). The above factors have been studied and summarized by many scholars and will not be discussed here.

Based on the research purpose and research objects, this study will explore the effect of the main antecedent variables such as POS, AC of OC and EE of job burnout on the turnover intention of community GPs.

(3) External environment

In terms of social economy, the labor market and unemployment rate will exert certain influence on employees' turnover. Wayne, Shore and Liden (1997) suggest that the turnover of firm's presidents, CEOs and senior managers often occurs when the labor market is in active period. According to Williams (1999), unemployment rate is negatively correlated with employee turnover rate and unemployment can affect the turnover more directly than any other variables.

2.1.3 Turnover of Chinese medical staff

A large number of studies on turnover intention of medical staff have also been conducted in China, most of which focusing on the turnover intention of nurses. These studies mainly revolve around the current situation of turnover intention of medical staff, explore the antecedents of turnover and the relationships between turnover intention and work-related attitudes such satisfaction and job burn-out and partially verify or reconstruct the foreign turnover models. Chinese scholars Li et al. (2010) surveyed the medical staff in Chinese public hospitals and found nearly half of them have turnover intention; through multiple regression analysis, he discovered that emotional exhaustion and limited development space contribute most to the turnover intention of the medical staff. In the study on turnover intention of clinical nurses, Lv and Liu (2009) found the turnover intention of nurses surveyed is negatively correlated with job satisfaction and positively correlated with occupational burnout. Wang, Zhang, Liang, Gao and Meng (2010), by surveying the nursing staff in community health centers, found the surveyed has higher turnover intention. In his survey on the medical staff in community health centers in Guangdong province, Yao et al. (2011) found the medical staff, especially those with college degree or above has higher turnover intention.

Xu surveyed the medical staff in community health centers in Anhui province and found those surveyed has a lower turnover intention, however, his multiple regression analysis suggests gender, age and length of service are the main affecting factors of turnover intention.

Li, Yang and Shen (2011) found that the emotional exhaustion of nurses plays a role of predicting their turnover intention. A sampling survey of medical staff in grass-roots medical institutions in five provinces including Jilin and Shandong by Song (2014) suggests when the individual and work factors are controlled, emotional exhaustion can exert direct influence on turnover intention of community health workers. According to Xue et al. (2012), Chang et al. (2016), the job burnout plays a crucial role in predicting the turnover intention and thus is the risk factor for the GP turnover intention. Yang (2016) found the emotional exhaustion of job burnout can be used to predict the turnover intention of nursing staff after conducting a study on the turnover intention of nursing staff in public hospitals and its affecting factors. With the medical staff in basic-level medical institutions in Jilin City as the research objects, Ma (2016) found emotional exhaustion is negatively correlated with the intent of stay of medical staff. After surveying medical staff, Yang, Wu and Zhang (2017) found job burnout and emotional exhaustion are positively correlated with turnover intention.

2.2 Perceived organizational support

2.2.1 Concept of perceived organizational support (POS)

As described above，perceived organization support, was used to measure employees' perceived organizational commitment to them. If the employees perceive the organization's esteem and care for and commitment to them, they will work harder for the organization. Proceeding from the perspective of employees, the concept of POS evaluates whether an organization has shown enough care for its employees and whether the organization system can meet employee's spiritual and living needs according to employees' psychological reactions and their own interests. POS overcomes the one-sidedness of previous studies, which only focus on the employees' commitment to organization while ignoring the organization's commitment to employees. It suggests that an organization's respect and care for its employees are the important reasons why the employees are willing to stay with the organization and contribute more to it, namely an organization's commitment to its employees should come first in order to foster the employees' commitment to the organization. Thus, it has provided a new perspective for people to deal with the relationship between employer and

employee.

Later, McMillin (1997) supplemented the views of Eisenberger et al. (1986) through the study of service personnel. He believes that the POS proposed by Eisenberger only focuses on organization's care and support for employees but ignores other aspects such as tools support. Because without the tools support, the employees will lack the resources necessary to get their work done, such as information, instruments and equipments. On this basis, he constructed the two-dimensional POS model, namely socioemotional support and tools support. The tools support refers to the "hardware" support such as information, materials and personnel that help employees to finish work smoothly; socioemotional support refers to the "software" support such as care, respect and colleagues network that help employees meet their social and psychological needs.

Rhoades and Eisenberger (2002) studied the relationship between employees and organization with behavioral attribution. They believe when employees encounter adverse circumstances in the organization, they tend to make attributions, and the results of attribution will directly affect employees' emotions. Employees with high POS always make attributions in favor of the organization, namely take the organization's stand and seek reasonable reasons and explanations for the organization (for example, the organization is obliged to do so by force of circumstances). This means employees with high POS often feel a close tie to their organization and will not change their positive feelings towards the organization. The higher POS the employees harbor, the more inclined they think the organization can fulfill their socioemotional needs and appreciate their value, thus increasing employees' felt obligation to help the organization reach its objectives.

Given the difference between Chinese and foreign cultures and based on previous studies, Chinese scholars Ling, Yang, and Fang (2006) use empirical research method to give definition to POS in the context of Chinese corporate culture. According to him, the POS was defined as "the employees' perceived organization's support for their work, care about their well being and appreciation for their value". Different from the definition of POS by Eisenberger et al. (1986), Ling, et al. regards POS as a multi-dimensional concept consisting of job support, employees' value identification and care for interests.

The study adopts the POS definition by Eisenberger et al. (1986), according to which the POS is the degree to which employees believe that their organization values their contributions and cares about their well-being", which reflects the employees' overall perceptions towards the organization's support.

2.2.2 Constructs of POS and its measurement

Currently, there are two theories concerning the POS dimensions in China and foreign countries, including the single dimension theory represented by Eisenberger et al. (1986) and multi-dimensions theory represented by McMillin (1997) and Ling et al. (2006).

In terms of the research on the unidimensionality of POS, Eisenberger et al. (1986) developed the Survey of Perceived Organization Support (SPOS). The questionnaire has two parts, with each consisting of 18 items. Likert Scale is used to score the questionnaire responses and some items are reverse-coded. The exploratory factor analysis and reliability analysis suggest the questionnaire has high uni-dimensionality and reliability and the same coefficient of variables is close to 0.97, which have been verified by different scholars in studies of different fields and organizations.

However, the excessive number of SPOS items developed by Eisenberger et al. (1986) has affected the scale's convenience and practicability in practical use. Therefore, for the convenience of research, scholars always created simple version of SPOS by extracting some high-loading items from the scale. For instance, Eisenberger Cummings, Armeli, and Lynch (1997) formed a new POS scale by extracting eight items from the original POS scale containing 36 items. The simple version performs equally well in reliability and validity and applicability and meanwhile it is convenient and easy to use.

With the development of POS, many scholars have gradually paid more attention to the research of the multi-dimensionality of POS. McMillin (1997) believed aside from the emotional POS proposed by Eisenberger et al. (1986), POS should also include tools support. Therefore, McMillin (1997) argued POS should be multi-dimensional, whose view has been accepted by other scholars. Bhanthumnavin (2003) maintained POS should comprise emotional, informational, and material POS. Kraimer and Wayne (2004) maintained POS should comprise adaptive POS, financial POS and career POS and the measurement scale has 12 items.

Ling et al. (2006) conducted the empirical study of three-dimensional POS model and based on which he developed POS scale that fits Chinese culture background after surveying the employees of Chinese enterprises. The scale has 24 items including three dimensions, namely work support, value identification and care for interests. The scale developed the multi-dimensional structure of POS for Chinese employees and provides reliable tools for the study of POS oriented towards Chinese employees. The scale has later been adopted by many studies and shows good reliability and validity.

2.2.3 Antecedents and outcome variables of POS

Since the POS was first put forward by Eisenberger et al. (1986), the foreign studies on POS has become very mature. Shore, Barksdale and Shore (1995) argued that employees give their assessment on the procedural justice through organizational policies such as pay rise and promotion and further foster POS. Therefore, the fairness in the resources distribution has significant effect on employees' POS. Dekker and Barling (1995) believed that among the factors that can enhance POS, the organizational rewards and working conditions are considered to carry far less weight than others do. They can strengthen POS only when employees think these measures are taken voluntarily or intentionally by the organization. Wayne et al. (1997) holds that if the on-the-job trainings are provided based on an organization's voluntary investment rather than pressure from public opinions, the employees' POS will be improved. In his study of doctors, Moorman, Blakely and Niehoff (1998) examined the relationship between procedure justice and POS and found these two are highly correlated and meanwhile the interactive justice has more influence on POS than other types of justice. That is to say, the justice in workplace, interpersonal communication and employees' dignity can enhance employees' POS. Eisenberger, Armeli, Rexwinkel, Lynch and Rhoades (2001) maintain that the organizational rewards and good working conditions can exert significant influence on employees' POS. A meta-analysis of pervious POS studies carried out by Rhoades and Eisenberger (2002) suggest that there are three antecedents of POS, namely organizational rewards and working conditions, supervisor support and procedural justice. Many studies suggest that the organizational rewards and working conditions are weakly connected with POS. Rhoades and Eisenberger (2002) argue that only when the procedural justice and supervisor support are controlled in the path analysis they can affect POS. Allen, Shore and Griffeth (2003) believe participation in decision-making, fair treatment and development opportunities are the three major factors affecting POS. Shanock and Eisenberger (2006) pointed out supervisor support is positively correlated with POS and the support from the supervisors can significantly enhance employees' POS.

Apart from the aforementioned three antecedents, some scholars think employee's characteristics can also affect POS. Rhoades and Eisenberger (2002) maintain employee's personality can influence the POS by changing their perception of the organization's concern for their treatment and by influencing employees' behaviors and organizational treatment. According to Xiong (2010), another dimension of personal characteristics is responsibilities, which can result in the employee's increased work efforts and better organizational treatment

and enhanced POS.

In addition, some scholars also pay attention to the effect of “organizational politics” behavior on POS. Different from organizational justice and procedural justice, organizational politics always means an unfair organizational treatment. Harris, Harris, and Harvey (2007) believed when the organizational politics is at high level, the organization members will feel greater uncertainty because they do not know what kinds of behaviors will be rewarded or punished. Therefore, organizational politics has negative effect on POS.

Few Chinese scholars have studied influencing factors of POS. By using inductive method, Zhang, Farh, and Wang (2012) summarized the possible reasons for the formation of POS in particular Chinese cultural background, which include health benefits, salaries and fringe benefits, family benefits, rights and dignity, and growth opportunities (Wang, Zhong, Farh, & Aryee, 2000). Through empirical study, Rong (2004) discussed how the human resources management practice can affect POS. The results of exploratory factor analysis suggest that spiritual care, care for material life, better working environment, job guarantee, on-the-job training as well as career development are six human resources factors affecting POS of Chinese employees.

From a cultural perspective, Zhang, Farh, and Wang (2012) discussed the antecedents of POS in Chinese context, who believed the “organizational treatment” will be perceived, assessed and interpreted in different ways by employees with different cultures. Therefore, the same human resources management practice can be variously interpreted by employees with different cultures. Thus, it can be assumed that the antecedents of POS may vary depending on the specific culture context. "Compliance with authority" in Chinese traditional values helps employees to be satisfied with the status quo and feel supports from the organization.

The studies on outcome variables of POS are focused on the relationship between POS and organizational commitment (OC). OC refers to individual's psychological attachment to and identification with the organization (Allen & Meyer, 1990; Meyer & Allen, 1991, 1997). Meyer and Smith (2000) believed the procedural justice and POS perceived by employees play the mediating role between organizational human resources practice and employee’s OC. Employees with higher POS tend to have higher OC. Eisenberger et al. (2001) found that POS has significant effect on OC, among which, POS is a good predictor of affective commitment and but weakly connected with continuance commitment. Hochwarter, Kacmar, Perrewé, and Johnson (2003) also discovered POS can affect OC and job satisfaction. Stinglhamber and Vandenberghe (2003) contend high POS influence employees’ affective commitment through three mechanisms: first, POS would increase employees' felt obligation to help the

organization reach its objectives and thus they will work harder for the organization and strengthen their affective commitment; second, POS can fulfill employees' socioemotional needs such as respect, approval and affiliation and further improve their affective commitment to the organization; finally, when employees' POS is high, they can feel more comforts and approval from the organization and further arouse a range of positive emotions that lead to higher affective commitment to the organization.

Some researchers have discussed the relationship between POS and turnover intention (TI). Eisenberger et al. (1986) and Hochwarter et al. (2003) hold that POS allows employees to identify themselves as important members of the organization, thus reducing employees' job transfer and turnover. Many researchers assert that POS is negatively correlated with TI (Cropanzano, Howes, Grandey, & Toth, 1997; Eisenberger et al., 2001; Hochwarter et al., 2003; Allen et al., 2003). After summarizing a host of studies on POS and TI, Allen et al. (2003) concluded that OC and job satisfaction play mediating role between POS and TI. Han and Liu (2009) discussed the relationship between POS and TI and found POS is negatively correlated with TI and job satisfaction plays a mediating role between POS and TI.

2.3 Emotional exhaustion

2.3.1 Concept of emotional exhaustion

Emotional Exhaustion (EE) constitutes a core dimension of "job burnout", a concept developed by Freudenberger (1974), which refers to a feeling of prolonged burnout in process of contacting with others. Physically and psychologically, it is manifested by a sense of loss of care, trust and interests, physical depletion and loss of passions for work as a result of an individual's failure to effectively cope with the problems and conflicts in interactions with others. Maslach and Jackson (1981) further assert that emotional exhaustion is a stressor causing occupational burnout, which is manifested by both physical fatigue and a sense of feeling psychologically and emotionally "drained". A sufferer may have negative responses to others and themselves. This is because when people talk about their job burnout, emotional exhaustion is always the most frequently mentioned experience. It is a response to job stress and the essence of job burnout and is manifested as psychological or emotional reactions such as lack of energy, emotional paralysis, loss of enthusiasm for work, frustration and fatigue, apathy and alienation. Zohar (1997) pointed out when an individual is emotionally overextended and exhausted by his work, he will suffer from physical fatigue and have a

sense of feeling psychologically and emotionally "drained". Wright and Cropanzano (1998) believed emotional exhaustion is a chronic state of physical fatigue and mental exhaustion caused by excessive work and frequent troubles. Demerouti, Bakker, Nachreiner, and Schaufeli (2001) pointed out emotional exhaustion refers to the consumption and depletion of capacities and an individual's response to work-related stress such as demanding work, utter exhaustion, coping mechanism and internal resources, which is manifested by physical fatigue, work-related depression, psychological complaints and strains, as well as physical resistance. Shirom (2003) perceived emotional exhaustion as one of basic factors causing employees' job burnout, which occurs when a mismatch is present between the nature of the job and the person doing the job. It is manifested by physical fatigue and psychological exhaustion. Thus it can be seen scholars generally hold the similar views on emotional exhaustion. The reason is that EE is generally caused by the unpleasant things in work and the frustration in work is to a large extent a result of accumulative effects of many unpleasant things. From the perspective of results, the emotional exhaust can result in physical fatigue and psychological stress such as lack of energy, emotional paralysis, loss of passions for work and other unexpected negative behaviors.

To sum up, emotional exhaustion has been variously defined and interpreted by scholars. However, a general review of the essence of these definitions suggests the EE has the following characteristics: (1) EE is consuming process. Like an energy pool, EE stays in a constant state in normal conditions, but once there are stressors that a person is unable to cope with fully, the energies will be slowly drained away until the person feel and fatigued and exhausted; (2) EE is a limit vector with negative direction and low limit strength. Just like the human's physical strength, it has to be recovered through rest once the capacities are excessively consumed; (3) EE is a slow depletive process, usually associated with stress. It often develops slowly and may not be recognized until it has reached a particular critical point where an individual suddenly feels the irretrievable depletion and meanwhile cannot associate the destructive exhaustion experience with any special stressor. EE often exerts certain negative effects on sufferers' cognition and behaviors, resulting in reduced personal accomplishment, cognitive bias and behavioral deviation.

2.3.2 Constructs of EE and its measurement

Because scholars generally hold similar views on emotional exhaustion, they also agree that the emotional exhaustion is a uni-dimensional concept, which is universally defined as an emotional state in which the employees' mental resources are gradually consumed out.

In specific research, researchers usually develop one or several items to measure EE according to research needs. For example, Santavirta, Kovero, and Solovieva(2005)'s scale designed to explore the relationship between job and emotional exhaustion. MBI, also known as Maslach Burnout Inventory developed by Maslach and Jackson (1981) is thought to be the most scientific and widely used tri-dimensional instrument for assessing job burnout, which includes emotional exhaustion, depersonalization, and personal accomplishment. As a dimension of MBI, the scale for EE consists of nine items (statements) on a seven-point scale. The respondents are asked to indicate the extent to which they agree with the occurrence frequency of the ideas or thoughts described in each statement, with 0-6 respectively representing "Never", "a few times a year or less", "one time a month or less than one time", "several times a month", "one time a week", "several times a week". Research has proven the scale has high reliability and validity.

MBI-GS is a job burnout scale developed by Maslach, Jackson, and Leiter (1996) for non-professional helping professions, which is revised version based on MBI. Although the scale has only five items concerning EE, EE remains the core part of the job burnout scale. After being authorized by the developer of MBI scale, Li, Shi, Luo, Li, and Yang (2003) became the first scholars to revise the MBI-GS scale in China and the scale includes 16 items with three dimensions: emotional exhaustion, depersonalization, and personal accomplishment. The reliability and validity test shows the scale has good reliability and validity.

BM (Burnout Measure) scale is another widely-used instrument measuring job burnout, whose prototype is Tedium Measure designed by Pines (1993) according to clinical experience and case study. The scale is used for employees engaging in different works and non-working groups like college students and housewives. The scale has strong positive correlation with the MBI's EE subscale and is found to differentiate from depression and job stress scales, suggesting the scale has a certain practicality.

2.3.3 Antecedents and outcome variables of emotional exhaustion

The antecedents of EE can be roughly classified into two types: work characteristics and individual characteristics.

The work characteristics mainly include workload, work pressure and work atmosphere and the like. Schaufeli and Enzmann (1998) believed that occupational types are related to EE, with EE varying according to the post level. Lee and Ashforth (1996) found that compared with the depersonalization and reduced self-efficacy, job requirements and

resources for coping stress is more closely linked with EE. Take nursing staff for example, Coffey and Coleman (2001) proved the workload of nurses (number of patients she serves) is related to the degree of their job burnout. Demerouti et al. (2001) pointed out through empirical study that the patients' requirements and time pressure can predict emotional exhaustion; work resources, such as insufficient rewards and lack of participation can predict an individual's disengagement behaviors.

After exploring the relationship between work pressure and emotional exhaustion, Xu (2005) found the greater the job pressure is, the more likely an employee is to get emotionally exhausted and the work support play a significant mediating role between job pressure and EE. Wang (2014) discovered workload and self-control in work have significant influence on EE and withdrawal behaviors, with workload carrying more weight than self-control in work.

Secondly, emotional exhaustion is an individual's psychological process, always associated with personal characteristics such as age, education background, length of service, marital status and personal traits, among which, age is the common predictor of emotional exhaustion. Maslach (1982) pointed out age is related to emotional exhaustion. Russell, Altmaier and Van Velzen (1987) also found that younger teachers are more prone to emotional exhaustion. In the relevant studies at home and abroad, Liu and Wu (2005) pointed out people aged 26-30 are more likely to experience emotional exhaustion than any other age groups. Extroverts tend to take initiatives to communicate with others and acquire positive emotions while irritable and introverted people are more likely to experience something unpleasant in interactions with others thus suffering from emotional exhaustion. Based on the Big-Five personality dimensions, Li and Shi (2005) studied the relationship between personality and emotional exhaustion and found extroverts generally have low level of EE while individuals with low emotional stability are more likely to suffer from emotional depletion.

The effect of gender on emotional exhaustion is still much debated. Klarreich (1988) pointed out women are more likely to suffer from job burnout than men. The word of "burnout" has been specially used for women with successful career. Therefore, it can be argued that women's exhaustion is caused by their own struggle and their high expectations for themselves. Maslach (1982) argued women tend to suffer from more emotional exhaustion and experience it more often than men do. However, Hooks (1992) believed although gender difference has no effects on work pressure, compared with successful men, the culturally imposed role expectations has put successful women under higher pressure at work. Besides, given the big difference of sex ratio in different occupational groups, purely studying the

effect of gender difference on burnout is flawed.

The study by MaslachSchaufeli and Leiter (2001) showed that education is related to emotional exhaustion. And the more educated individuals are, the more likely they are to become emotionally exhausted.

However, some studies have shown some individual characteristics have no significant correlation with emotional exhaustion. For example, Mliis and Huebner (1998) found demographic factors such as age, length of service and gender are not significantly correlated with EE. Ewers Tomic and Brouwers (2001) also proved that gender and age have no effects on burnout. Smith and Leng (2003) studied Singapore teachers and found no statistical correlation between demographic variables and burnout. Therefore, the relationship between personal characteristics and emotional exhaustion still needs to be further studied in a deep-going way.

The outcome variables of emotional exhaustion include the individual employee's level and organization level. Maslach (1982) found emotional exhaustion can lead to stress, negative emotions, depression, depression, and physical discomfort. Emotional exhaustion also has a negative impact on the organization.

From an organizational perspective, Russell et al. (1987) pointed out emotional exhaustion is significantly correlated with employees' OC and job performance and EE can also cause the employees' counterproductive work behaviors. A study conducted by Wright and Cropanzano (1998) shows that emotional exhaustion can be seen as a cost that qualifies the value of any benefits received through employment, and so that an organization, which overworks its employees to the point of emotional exhaustion, may be seen as unfair. Wright and Cropanzano (1998) also discovered employees suffering from emotional exhaustion are characterized by reduced job performance, high absence rate and even thoughts of quitting. Halbesleben and Buckley (2004) believed the emotional exhaustion is contagious. When an individual in a team suffers from higher emotional exhaustion, others in the team tend to experience different levels of emotional exhaustion, which not only affects their work behaviors but has negative impact on overall organizational performance. Cropanzano, Rupp and Byrne (2003) studied the medical staff and found emotional exhaustion is a predictor of turnover intention and excessive emotional exhaustion will lead to higher turnover rate. Iverson, Olekalns and Erwin (1998) found that EE is negatively correlated with job satisfaction and EE sufferers will bring negative emotions to family members and friends, thus affecting family life and friendships and other aspects of daily life.

Lee and Ashforth (1996) and Blankertz and Robinson (1997) pointed out emotional

exhaustion is significantly correlated with employee turnover intention. Studies conducted by Wright and Cropanzano (1998) and Grandey (2004) show that emotional exhaustion can be seen as a cost (the theoretical premise is to limit the value of any interests), which is acquired through work. Employees who are emotionally exhausted because of overwork may perceive the organization they serve as unfair. Wright and Cropanzano (1998) also discovered that exhausted employees show not only lower job performance, but also more absences, and greater likelihood of seeking employment elsewhere (actual voluntary turnover).

Although the studies of most scholars suggested EE has a negative effect on organization, there are scholars who hold opposite views. For example, the study by Cherniss (1992) showed burnout experienced by individuals in the early stages of their careers does not necessarily have important and long-term negative effects, but burnout during the subsequent career stages will lead to severe consequences.

2.4 Affective commitment

2.4.1Concept of affective commitment

Affective commitment (AC) is an important dimension of OC, which refers to the employee's positive emotional attachment to the organization and the identification with the organization’s goal, values and organizational standards. The concept was defined by Meyer and Allen(1991) based on the previous studies from the perspectives of individual’s identification with an organization and willingness to be part of the organization. Meyer and Allen (1991) categorized OC into three dimensions, namely affective commitment, continuance commitment and normative commitment. AC refers to the employee's positive emotional attachment to the organization and the identification with the organization’s goal, values and organizational standards; continuance commitment (CC) means that an individual may commit to the organization because he/she perceives a high cost of losing organizational membership; normative commitment (NC) refers to that an individual commits to and remains with an organization because of feelings of obligation.

Meyer and Allen(1997) also proposed that employees with high AC desire to remain a part of an organization. There are three "mind sets" which can characterize an employee's commitment to the organization:

First, employees are committed strongly identifies with the values and goals of the organization. Second, employees are willing to make the greatest efforts for the benefits of the

organization. Third, an employee has strong desire to stay with the organization.

Meyer and Allen's (1997) three-component model of commitment has been widely accepted by the academic circles. Sheldon (1971) defined AC as employees' identification with and desire to remain close tie and affiliation to an organization. According Fan, Yan and Ji (2010), AC is the notion through which employees affectively attach themselves to an organization out of their wishes instead of just for their interests. Chinese scholars Ling, Zhang and Fang (2000) gave definition to AC in Chinese cultural background, according to which AC means an employee is affectively committed strongly identifies with an organization regardless of pay. Ling's definition has a great impact on the China's academic research.

Generally, Meyer and Allen (1997) defined AC from the perspectives of employees' identification with and their affiliation to an organization. By contrast, Ling et al. (2000) measures AC from employees' dedication and loyalty to an enterprise. By comparing the two, it can be found the former's definition is more comprehensive. Therefore, the study selects the definition of Allen and Meyer, namely AC refers to the employee's positive emotional attachment to the organization and the identification with the organization's goal, values and organizational standards.

2.4.2 Dimensions of AC and its measurement

Organizational Commitment Questionnaire (OCQ) was first developed by Porter and Mowday, Steers and Porter (1979) to measure organizational commitment from three aspects: the extent to which an employee identifies an organization's values and goals; willingness to contribute to an organization; desire to keep an organizational membership. But most researchers argue Porter and Mowday's definition of OC focuses on AC and thus the scale is actually for a measurement of affective commitment. The scale, comprising 15 items, has good reliability but unsatisfactory construct validity. O' Reilly and Chatman (1986) developed a 21-itemOC scale based on their classification of OC, namely compliance, internationalization and identification. Allen and Meyer (1990) developed an eight-item Affective Commitment Scale (ACS) with reliability coefficient being 0.87. In 1991, Allen, Meyer and Smith (1991) reformulated their original eight-item scale into a six-item one on a five-point Likert scale, whose items are worded as follows: (1) I would be very willing to stay with the organization; (2) I often regard organizational problems as my own problems; (3) I am affectively committed strongly identifies with the organization; (4) I think my organization is a big family; (5) I think the organization is very important to me; (6) I am

currently very loyal to the organization. Three items of the scale are scored in a reverse way. The scale's internal consistency reliability is 0.83 and its stability and consistency has been testified by many studies. By studying Chinese enterprise employees, Cheng and Stockdale (2003) tested the Allen and Meyer's (1990) scale and the results of confirmatory factor analysis showed that the AC of Chinese employees is higher than that of American and Korean employees.

From a multidimensional perspective, Porter et al. (1974) developed an Organizational Commitment Questionnaire (OCQ) comprising 15 items with three dimensions, including identification, participation and loyalty. Specifically, identification refers to the degree to which an employee identifies the values and goals of an organization; participation refers to the willingness and efforts of an employee to help the organization to achieve its values and goals; loyalty refers to an employee's commitment to remain a part of the organization. Based on the culturally-adjusted OCQ scale by Chinese scholars, Liu (2006) developed a 14-item OC scale on seven-point Likert scale. Because OCQ is developed mainly based on the dimension of AC and therefore compared with other scales, it can fully measure AC and has good reliability and validity. On this basis, Liu's OCQ-based scale is also commonly used for measurement of affective commitment.

Chinese scholars have made progress in the research of AC measurement. Zhang and Li (2002) tested the applicability of Meyer and Allen (1991)'s three-component OC scale by studying 742 employees in 15 Chinese enterprises and found the reliability of AC subscale is acceptable. Ling et al. (2000) developed a Chinese employees-specific OC scale based on their OC model for Chinese employees established in 2000. The "Chinese employees-specific OC Questionnaire" includes five components including affective commitment, ideal commitment and normative commitment, economic commitment and opportunity commitment. The scale items mainly focus on measuring the employees' efforts and dedication to the enterprises.

2.4.3 Antecedents and outcome variables of AC

A study by Meyer et al. (1991) showed that the AC's antecedents mainly include individual characteristics such as age, working age, gender and other demographic variables; job contents such as innovation and diversity; working experience; and organizational characteristics. Liu (1999) believed that job satisfaction, degree of satisfaction with supervisors and colleagues are strongly related to AC. Ling, Zhang and Fang (2001) found that the AC of employees with different ages, tenure and job types is vastly different, and trust

in supervisors, life support from the organization, leaders' behaviors of maintaining a team and dependability of an organization can affect the individual AC. A meta-analysis of previous studies on AC's antecedents by Meyer, Stanley, Herscovitch and Topolnytsky (2002) showed AC's antecedents mainly include age, gender, education background, organizational support, role conflict, interaction justice, distribution justice and procedural justice. Zhang and Gu (2010) survey the job satisfaction and OC among 278 knowledge workers in high-tech industry and found there is a significant positive correlation between job satisfaction and affective commitment. The higher the employee's job satisfaction is, the higher AC the knowledge workers have. A correlative study of organizational identification, job satisfaction and AC among 545 teachers by Li et al. (2011) suggests job satisfaction is a strong predictor of AC of the surveyed teachers. Luo, Zhou, Chen, Pan, and Zhao (2014) studied the relationship between career identification and AC among teachers and found career identification and job satisfaction are both strong predictors of AC.

Current studies show outcome variables of AC mainly include employee turnover intention and organizational citizenship behavior (OCB). Meyer et al. (1991) pointed out AC has significant correlation with turnover and turnover intention. Ling et al. (2001) found TI is significantly correlated with AC after he studied OC of Chinese employees. After exploring the relationship between OC and TI, Tian (2014) pointed out the effect of AC on TI is significantly higher that of normative commitment on TI, suggesting AC has greater impact on employees when they face turnover-related issues. Organizational citizenship behavior is another important outcome variable of AC. Ling et al. (2001) held that employees affectively committed to organization are mostly those who work hard, conduct altruistic behaviors and provide more rationalization proposals; meanwhile, they face less pressure from the supervisors. Liu and Jing (2007) surveyed the organizational citizenship behavior and AC among 200 employees in Sichuan province and found AC is significantly correlated with OCB.

2.5 Relationship between POS, EE, AC and TI

2.5.1 Relationship between POS and TI

A large number of foreign and Chinese literatures have proved that POS has negative effect on TI. According to social exchange theory, POS would increase employees' felt obligation to help the organization reach its objectives; higher POS can result in lower TI.

According to principle of reciprocity, people tend to feel a 'moral' obligation to help those who have helped themselves. When it comes to organizations, an employee similarly feels obliged to reciprocate the received rewards and favorable treatment provided by organization through sustained engagement or other ways. POS allows employees to identify themselves as an important member of the organization, thus reducing turnover behavior and job mobility (Eisenberger et al., 1986; Hochwarter et al., 2003). Surveys among different groups by other researchers showed POS is negatively correlated with TI (Cropanzano et al., 1997; Eisenberger et al., 2001; Hochwarter et al., 2003; Allen et al., 2003; Dawley, Houghton, & Bucklew, 2010). POS refers to the support from organization perceived by employees and high level of POS can cause a series of positive emotions that allow the employees to see their value as part of the organization, thus reducing their intention to leave because of disappointment and boredom. Gu et al. (2017) discussed the relationship between POS and job satisfaction, TI among the frontline clinical physicians in a second level hospital in Shanghai and found POS can greatly reduce the TI of physicians.

Some studies believe AC and job satisfaction play mediating role between POS and turnover behavior. Studies on effects of POS on TI conducted in China suggest POS is negatively correlated with TI and job satisfaction play a partial mediating role between POS and TI (Han & Liu, 2009; Sha & Feng, 2011; Chang, 2011; Wang, Sui, & Wang, 2012; Ge, Wang, & Ma, 2013). Zhang (2009) discovered POS can best explain the relationship between organizational career management and TI of knowledge employees. The fair promotion, provision of information and emphasis on trainings in organizational career management has direct effect on employee turnover intention and can also affect TI through the mediating effect of POS. Besides, some studies believe POS plays an mediating role between OC and turnover behavior. Based on social exchange theory and organizational support theory, Jiang (2007) discussed relationships between sense of fairness, POS, AC and TI and constructed the theoretical model concerning the mediating role of POS between employees' sense of fairness, AC and TI.

2.5.2 Relationship between EE and TI

Studies by Jackson, Schwab, and Schuler. (1986), and Firth and Britton (1989) suggest emotional exhaustion dimension of job burnout is related to turnover intention and turnover behavior. A meta-analysis of emotional exhaustion conducted by Lee and Ashforth (1996) showed EE can lead to turnover intention and reduced sense of organizational belonging. Blankertz and Robinson (1997) discovered EE is positively correlated with TI. Wright and

Cropanzano(1998) also discovered employees suffering from emotional exhaustion are characterized by reduced job performance, high absence rate and even thoughts of quitting. Cropanzano et al. (2003) studied the medical staff and found emotional exhaustion is a predictor of turnover intention and excessive emotional exhaustion will lead to higher turnover rate.

Li and Li (2007), and Yang (2016) found that the emotional exhaustion of nurses plays a role of predicting their turnover intention. A sampling survey of medical staff in grass-roots medical institution in five provinces including Jilin and Shandong by Song (2014) suggests aside from the individual and work factors, emotional exhaustion can exert direct influence on turnover intention of community health workers. With the medical staff in basic-level medical institutions in Jilin China as the research objects, Ma (2016) found emotional exhaustion is negatively correlated with the intent of stay of medical staff. Studies by Xue et al. (2012), and Chang et al. (2016) showed job burnout is a strong predictor of TI and thus is the risk factor for the GP turnover intention. After surveying medical staff in the third grade class of a specialist hospital, Yang et al. (2017) found job burnout and emotional exhaustion are positively correlated with turnover intention. Dong (2015) explored the relationship between EE and TI among IT employees and found EE is significantly correlated with TI and EE is not only a predictor of TI but plays a partial mediating role between job pressure and TI.

2.5.3 Relationship between AC and TI

Meyer et al.(1991) pointed out AC has significant correlation with turnover and turnover intention. Jiang (2007) discovered AC is negatively correlated with TI. After exploring the relationship between OC and TI, Tian (2014) pointed out the effect of AC on TI is significantly higher that of normative commitment on TI, suggesting AC has greater impact on employees when they face turnover-related issues. Ye, Wang, Mao, and Xie (2017) surveyed 340 medical staff in 23 community health centers in Hengyang city of Hunan province and found OC of community medical staff can directly affect TI or indirectly influence TI by playing a mediating role between job satisfaction and job burnout.

According to some other studies, AC plays a mediating role between TI and some antecedents. Stinglhamber and Vandenberghe (2003) believe that AC plays a full mediating role between supervisor support and TI. Zeng (2012) found AC plays both mediating and moderating roles in the process of leader-member relationship’s negatively affecting TI.

2.5.4 Relationship between POS and EE

Organizational support can refuel the employees' depleted emotional resources thus mitigating the negative effects caused by emotional exhaustion. According to Pei, Li, Zhang, and Lei (2009), and Teng, Ji, and Chen (2011), POS is significantly and negatively correlated with EE. Huang and Yu (2014) found POS is significantly and negatively correlated with EE; the higher the POS, the lower the employees' EE. Xu, Liu, and Zhu (2017) found POS can indirectly affect EE through psychological capital and is significantly and negatively correlated with EE.

Some studies believe POS plays a mediating role between EE and some antecedents. Li and Li (2012) studied college counselors and found POS plays a partial mediating role between psychological contract breach and EE. Cen, Wei, Zhang, and Zhao (2012), by studying the effect of employee assistance program (EAP) on employees, found that POS plays a partial mediating role between EAP and EE. Based on the conservation of resource theory, social exchange theory and equality theory, Wu and Zhang (2017) studied 514 employees in 120 store branches and found POS plays an mediating role between leader-member exchange and EE.

There are some other studies that reveal POS plays a moderating role between EE and some antecedents. Based on the study of job demands-resources model by Li, Li and Tian (2013), POS play a significant moderating role between work-family conflict and EE; namely when POS becomes higher, the effect of work-family conflict on EE will become weaker. Wei and Lu (2017) found POS plays a moderating role between employee role overload and EE. When POS is higher, role overload has a weaker effect on EE; conversely, when POS is lower, role overload has a stronger effect on EE. This shows the great support from organization can supplement employees' self-control resources. As a result, the employees experience less negative emotions and lower emotional exhaustion. A survey of full-time employees in service enterprises by Zhao and Xi (2017) showed POS plays a moderating role between EE and TI; that is to say, when employees experience emotional exhaustion, the strong support from organization can supplement their emotional resources so that they are motivated to continue to work.

2.5.5 Relationship between POS and AC

Eisenberger et al. (1986) found employees' POS has a great influence on OC and especially it significantly and positively correlates with employees' AC. Once employees feel

higher POS, they tend to enhance affective commitment, increase efforts and perform better to reciprocate received rewards and favorable treatment from organization. Zhou (2005) studied relationships between POS, AC and work output based on structural equation model and found POS can affect work output through the mediating roles of AC and job satisfaction. Tian and Xie (2010) studied the effect of POS on employees' work behaviors and found that when faced with difficulties at work, employees with higher POS have higher sense of responsibilities, AC and intention to stay than those with lower POS. Newman and Sheikh (2012) found high POS can lead to high job satisfaction; meanwhile, employees with high POS tend to affectively commit to organization to reciprocate received rewards. A study by Jing (2016) found POS and its dimensions have positive effect on AC; compared with low level of material needs, organizational support and help and its recognition of individual value can meet the employees' high-level socioemotional needs for respect and approval, thus helping create an close emotional tie between employees and employer.

2.5.6 Relationship between EE and AC

Russell et al. (1987) pointed out emotional exhaustion is significantly correlated with employees' OC and job performance and EE can also cause the employees' counterproductive work behaviors. The subsequent studies have also shown that AC negative correlates with EE and AC can negatively predict EE. Wang (2007), and Zhang and Zhou (2008) studied the kindergarten teachers and found EE negatively correlates with AC; the higher the AC, the lower the EE. After studying the relationship between job burnout and AC among teachers, Luo and Li (2008), and Zhang and Bian (2010) found EE is significantly and negatively correlated with AC and meanwhile AC has a significant negative prediction on EE. Huang and Yu (2014) found EE can significantly and negatively affect job satisfaction and AC. Tian and Wang (2016) surveyed oncology nurses in five comprehensive hospitals in Tai'an county and found higher AC leads to low level of job burnout; AC can negatively predict emotional exhaustion, depersonalization, and reduced personal accomplishment. A survey on the relationship between job burnout and AC among primary school teachers by Lang (2016) found the EE dimension of job burnout is negatively correlated with continuance commitment and ideal commitment but shows a less negative correlation with AC and normative commitment.

2.5.7 Relationships of AC and EE between POS and TI

Some studies believe AC plays a mediating role between POS and TI. Allen et al. (2003) summarized a host of studies relating to POS and TI and concluded AC plays an mediating role between POS and TI. After studying the effect of POS of knowledge employees on TI, Zhang (2012) found AC dimension of OC plays a mediating role between POS of knowledge employees and TI.

Some other studies suggest EE plays a mediating role between POS and TI. Huang, Wang and Wang (2017) studied the effect of kindergarten teachers and occupational stress on TI and found the EE dimension of job burnout plays an mediating role between POS and TI.

2.5.8 Relationships of AC between EE and TI

Some studies suggest AC plays a mediating role between EE and TI. Theoretically, in the Price-Muller model relating to employees turnover proposed by Price (2001), these scholars summarized an array of variables influencing employees turnover and found work pressure has an indirect effect on TI through the mediating effect of job satisfaction, OC and TI. Based on this model, Price (2001) reasoned that the EE caused by long-term work pressure can indirectly affect employees' TI through the mediating effect of AC. Bian (2004) conducted a correlative study of job burnout of nursing staff, OC and TI and found excluding the effects of demographic factors and organizational characteristics, when OC variable is involved in the study, the predictive power of job burnout on TI becomes less significant than it is when job burnout is used as a single influencing factor to predict TI, which indicates that OC really plays a mediating effect; a further research on the various dimensions of OC and job burnout shows EE can influence TI through the mediating effect of AC. This suggests the high level of emotional depletion of medical staff can reduce their affective commitment and further increase their turnover intention.

2.6 Hypothesis

Currently, the studies on POS, EE, AC and TI among grass-roots medical staff mainly focus on the following two aspects: first, the current situation and influencing factors of POS, EE, AC and TI; second, the Relationship between POS, EE, AC and TI and studies of relevant models. However, most of these studies are targeted at nursing staff instead of general practitioners and meanwhile most studies focus only on the effect of POS or job burnout on

TI and fail to conduct an integrated study on the causal relationship between individual characteristics, POS, EE, AC and TI. However, whether these variables can play a crucial role in GPs' decisions on turnover needs to be further studied.

The "New Medical Reform" explicitly states that efforts should be made to promote the public hospitals reform with focus on county-level hospitals. Community health centers are the key providers of basic health services while GPs are the actual delivers of medical services. Therefore, ensuring sufficient number of GPs is the priority of talents team construction of community-level medical institutions. However, in recent years, although the number of GPs in grass-roots medical institutions is growing, the turnover of GPs in community health centers, especially in suburban and village clinics has become a great concern. Therefore, in order to alleviate the brain drain of rural health workers and ensure sustained, high quality and adequate supply of basic medical and basic public health services to meet the health needs of the residents, the Health and Family Planning Commission of Pudong New Area issued the policies of "Eight Incentive Policies" that provide a series of preferential policies in 2014 in an effort to attract medical talents and reduce the loss of GPs in village clinics.

Based on the relevant theories and empirical researches in literature review, I propose the following hypotheses and the theoretical model as depicted in Figure 2-1.

H1: GPs' POS is negatively correlated with TI.

H2: GPs' POS is positively correlated with AC.

H3: GPs' POS is negatively correlated with EE.

H4: GPs' EE is positively correlated with TI.

H5: GPs' AC is negatively correlated with TI.

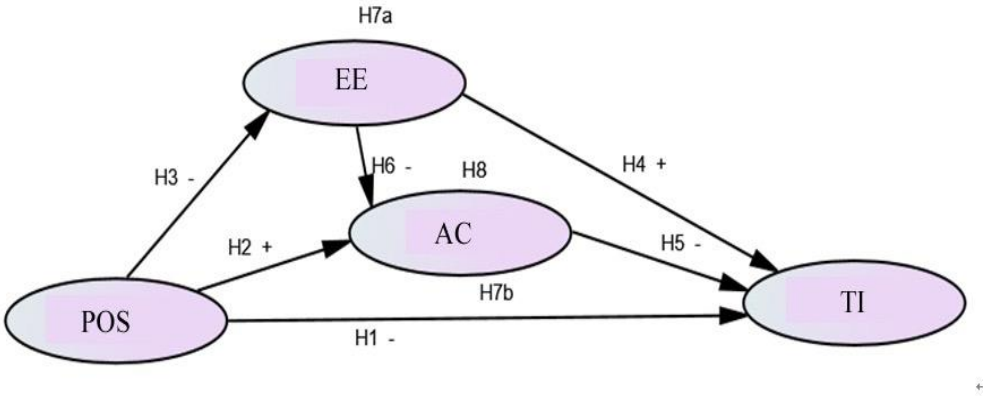
H6: GPs' EE is negatively correlated with AC.

H7a: EE plays a mediating role in the negative relationship between POS and TI.

H7b: AC plays a mediating role in the negative relationship between POS and TI.

H8: AC plays a mediating role in the positive relationship between EE and TI.

Figure 2-1 Proposed Research Model



Chapter 3: Research Design and Methods

With the general practitioners in the community health centers in Pudong New Area of Shanghai as the research objects, and based on the previous theoretical model and research hypotheses, questionnaire surveys are conducted to understand the current situation of GPs turnover intention and test the theoretical model built in chapter 2.

3.1 Research objects

The subjects of this study are all general practitioners in community health centers in Pudong New Area in Shanghai. The data were collected from13 community health centers in category A, 8 in category B, 11 in category C and 13 in category D.

According to the actual conditions, the study include the GPs who can meet all the following standards: (1) employees are paid based on the contractual relations with community health centers, including post-retirement employment, unbudgeted positions and employment through human resource agency; (2) holders of practicing physician or assistant physician qualification certificate, with at least half year of working experience; (3) showing willingness to participate in the study.

3.2 Research variables and measurement

According to the theoretical model as depicted in Figure 2-1, the key variables in this study include POS, EE, AC and TI. In addition, the study also include individual characteristics, work and organizational characteristics and family support and community environment which might be relevant to TI, POS, EE and AC as discussed in the literature review. The specific definitions, measurement tools and measurement methods of different variables are listed as follows:

3.2.1 Perceived Organizational Support

According to the definition of POS by Eisenberger et al. (1986), the perceived organizational support (POS) is the degree to which employees believe that their organization

values their contributions and cares about their well-being. From the perspective of employees, the variable POS is used to evaluate whether an organization really shows respect for and cares about their employees and meets their spiritual and life needs according to the employees' psychological responses and needs and gained individual interests.

Currently, the POS scale developed by Eisenberger et al. (1997) is widely used by scholars and the eight-item simple version of POS scale has been confirmed to have high reliability. Thus, the eight-item POS scale, after translation and context transformation, is used and forms the POS items in this study, which include: (1) My organization strongly considers my goals; (2) Help is available from my organization when I have a problem; (3) My organization really cares about my well-being; (4) My organization would forgive an honest mistake on my part; (5) My organization is willing to help me, if I need a special favor (6) If given the opportunity, my organization would take advantage of me; (7) My organization shows very little concern for me; (8) My organization cares about my opinions. By asking the respondents to specify their level of the agreement or disagreement on the eight items, the POS level of research objects is obtained.

The scale is graded on a 6-level Likert items from "strongly disagree" to "strongly agree" because respondents may avoid using extreme response categories (central tendency bias). The surveyed general practitioners are required to score the POS scale using scale of 1 to 6 according to their real feelings, with "1" representing "Strongly disagree", and "6" representing "Strongly agree" for items with positive description. For reversely-coded items, "1" represent "strongly agree" and "6"represents"strongly disagree". After the scale reliability and validity test, the unqualified items are eliminated. The average score of all remaining items reflects the overall POS; the higher the sore is, the stronger POS the GPs have.

3.2.2 Emotional Exhaustion

The three-dimension burnout definition by is adopted in this study, according to which, emotional exhaustion refers to a feeling of being emotionally overextended, physical fatigue and loss of energy. It is the pressure dimension of job burnout.

MBI, which was developed by Maslach et al. (1996), is now widely used in research of job burnout, also perceived as the "gold standard" for occupational burnout measurement. The scale is mainly designed to assess the job burnout of doctors, nurses and teachers. Therefore, the EE subscale of MBI scale translated and revised by Li et al. (2003) is used, whose items includes: (1) I feel mentally and physically exhausted; (2)I feel exhausted after I get out of work; (3)When I get up in the morning and have to face whole day's work, I feel very tired;

(4)Working all day puts great pressure on me; (5)the job nearly drags me into a state of collapse; (6) Since I began to do this job, I have become less interested in it. By asking respondents to answer how often the EE described in six items occur, the EE degree of research objects is obtained.

The scale is graded on a typical six-level Likert scale, with "1" representing "Never experience emotional exhaustion", and"6" representing "suffer from emotional exhaustion nearly each day". After the scale reliability and validity test, the unqualified items are eliminated. The average score of all remaining items reflects the overall emotional exhaustion of a respondent; the higher the score is, the more frequently the respondents experience the emotional exhaustion at work.

3.2.3 Affective Commitment

The study adopts the definition of AC by Meyer and Allen (1997), who define AC as the employee's positive emotional attachment to the organization and the identification with the organization's goal, values and organizational standards.

The AC scale in this study is formulated by translating the six items of Meyer et al. (1991)'s AC scale and transforming context. The items include: (1) I would like to continue working in the hospital as long as I can; (2) I always regard the problems of this hospital as those of mine; (3) I am affectively more committed to this hospital than any others; (4) I really feel I am a member of the hospital; (5) I really feel an emotional tie to the hospital; (6) The hospital means much to me. By asking the respondents to answer how much they agree with the given items, the AC level of research objects is obtained.

The scale is graded on a six-level Likert scale, with "1" representing "strongly disagree", and"6" representing "strongly agree". After the scale reliability and validity test, the unqualified items are eliminated. The average score of all remaining items reflects the overall situation of affective commitment. The higher the score is, the highly committed to the organization the respondents feel.

3.2.4 Turnover Intention

TI refers to an individual's intention to leave the current organization and the likelihood of seeking employment elsewhere, which can be indicative of the withdrawal behaviors of an employee when he is not satisfied with the current job, including thoughts of quitting, intention to look for other jobs as well as an assessment and comparison of the current job and

other jobs.

The TI scale in this study is designed based on the Mobley et al. (1978)'s employee withdrawal behavior model, studies of Zhang (2011), and Yan and Li (2015) on turnover intention. The scale includes three items: (1) I often have the idea of leaving the organization; (2) I want to seek employment elsewhere; (3) I always want to leave the organization within a year. By requiring the respondents to answer the degree to which they agree with the given three items, the TI level of the research objects is acquired.

The scale is scored on a typical 6-level Likert scale with "1" representing "strongly disagree" and "6" representing "strong agree". The average score of all items reflects the overall turnover intention. The higher the score is, the higher TI the respondent shows.

The scale dimensions, code, number of items, scores and score tendency of above variables are listed in Table 3-1.

Table 3-1 Basic information of the scales in the study

Name	Developer (s)	Dimension	Code	Item number	Score	The higher the score
POS	Robert	1	POS	8	1-6	The stronger POS the employees have
EE	Maslach and Jackson	1	EE	6	1-6	The more the employees are emotionally overextended
AC	Meyerand Allen	1	AC	6	1-6	The closer tie to the organization the employees have
TI	Mobley	1	TI	3	1-6	The higher turnover intention the employees show

3.2.5 Individual characteristics

According to the previous literature review, the individual characteristics of general practitioners include gender, age, marital status, education background, professional title, living conditions, position, professional title, methods of obtaining general practitioner qualification certificate, length of service and tenure in current organization, which are listed as follows:

(1) Gender: Male, female;

(2) Age (years old): 18-29, 30-39, 40-49, over 50;

(3) Marital status: Unmarried, married, others (divorced);

(4) Education background: Technical secondary school, junior college, undergraduate, master degree and doctor degree;

(5) Professional title: Ungraded, primary, intermediate, vice senior, senior;

(6) Living conditions: Live with family, live apart from family members, others.

(7) Position: General practitioners, administrative staff, and other positions;

(8) Administrative title: Director, deputy director, middle-level managers, heads of departments, ordinary medical staff;

(9) Methods of obtaining general practitioner qualification certificate (multiple choices): job-transfer training for village doctors and specialist doctors, unified examination, GP standardized training;

(10) Length of services: the total time of engaging in medical services as general practitioner;

(11) Tenure in current organization: working years in current organization as general practitioner.

3.2.6 Work and organizational characteristics

According to previous literature review, the work and organizational characteristics include working strength, salary, times of receiving trainings, welfare treatment, the knowledge and satisfaction degree of “Eight health interim measures”. The measurement methods of these variables are listed as follows:

(1) Working strength: specify average working hours per day, average working days per week and times of duties per month from Jan 2015 to December 2015;

(2) Salary: pre-tax annual salary in 2015 and estimated pre-tax annual salary in 2016;

(3) Times of receiving professional trainings: specify times and days of participating in the trainings offered by higher level health administrative departments, medical institutions or current community health centers;

(4) Welfare treatment (select all that apply): pension, basic medical insurance for urban employees, unemployment insurance, employment injury insurance, maternity insurance, housing fund, shuttle bus or transportation subsidies, preferential educational policies for children, others; no any welfare mentioned above;

(5) Do you know the incentive measures stipulated in the “Eight health interim measures”? The format of five-level scale is “totally unclear”, “unclear”,” generally clear”,

"clear" and "totally clear", with "1" representing "totally unclear" and "5" representing "totally clear";

(6) Are you satisfied with the benefits from the "Eight health interim measures"? The format of five-level scale is "extremely unsatisfied", "unsatisfied", "basically satisfied", "satisfied" and "extremely satisfied", with "1" representing "extremely unsatisfied" and "5" representing "extremely satisfied".

3.2.7 Family support and Community environment

Family support subscale include four items: (1) my family lends strong support to my work; (2) my family is proud of my profession; (3) my family guarantees that I can have sufficient time for work; (4) when I encounter difficulties, I can get help from my family. Respondents are required to specify their level of agreement or disagreement on a typical five-point scale from "strongly disagree", "disagree", "neither agree nor disagree", "agree" to "strongly agree", with "1" representing "strongly disagree" and "5" representing "strongly agree".

Community environment subscale includes two items: (1) The degree to which the local residents respect your work. (2) How well the local residents cooperate with your work? It is graded on a five-point scale: "extremely uncooperative", "uncooperative", "generally cooperate", "fairly cooperative" and "extremely cooperative", with "1" representing "extremely disrespect" or "extremely uncooperative" and "5" representing "extremely respect" or "extremely cooperative".

In order to collect deeper data and give the respondents an opportunity to fully express their opinions and ideas, the open-ended questions are offered in the last part of the questionnaire, which include: (1) Do you have any reasonable suggestions to the "Eight Incentive Policies for Medical Professionals in Rural Districts in Shanghai"? (2) Are you satisfied with your current work as a general practitioner? What suggestions or advices do you have? (3) What other expectations do you have for this work?

3.3 Data collection

The data for this study were collected through two waves of questionnaire survey. In Jun 2016, the first questionnaire was sent out to the respondents in order to collect data related to individual characteristics, work and organizational characteristics, family support and community environment and POS and open-ended questions. Six months later, the second

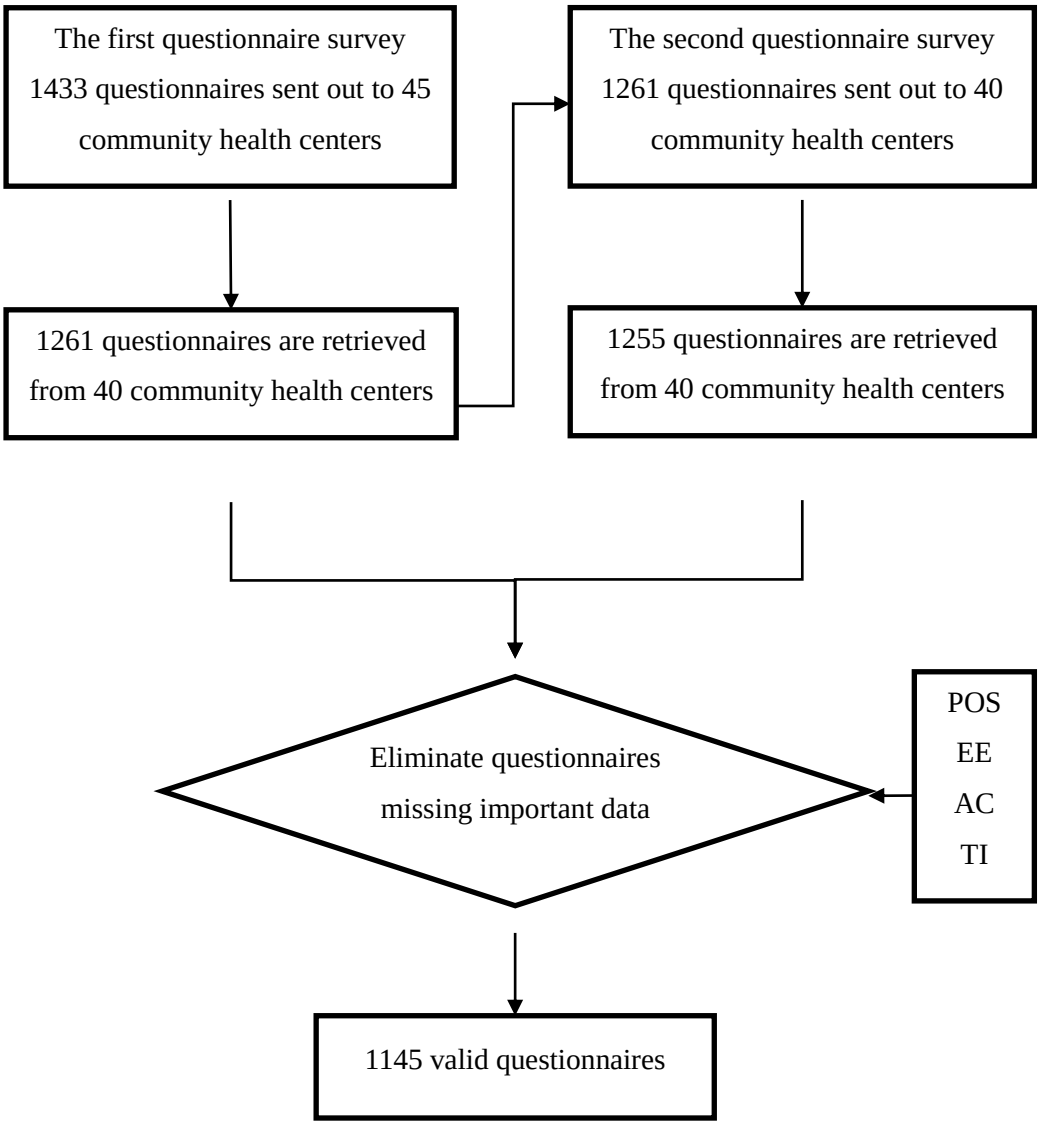
questionnaire was issued to the same respondents to measure their emotional exhaustion, affective commitment and turnover intention. The questionnaires were collected after the respondents completed them. The survey process is as follows:

The first survey was conducted in June 2016 focusing on collecting data regarding personal characteristics, work and organizational characteristics, family support and community environment, POS and open-ended questions. Before the questionnaire was issued, the personnel department in each community health center was required to encode the list of its general practitioners and reserve a copy of encoded list for the second survey. In the first survey, 1433 questionnaires were issued to respondents in 45 community health centers and 1261 were collected from 40 community health centers. The five community health centers failing to submit questionnaires include category A (2), category B (1), category C (1) and category D (1). The 40 community health centers participating in the survey include 11 in category A (Shuyuan, Xuanqiao, Datuan, Lingqiao, Wanxiang, Jiangzhen, Laogang, Heqing, Huanglou, Luchaogang and Jichang); 7 in category B (Zhuqiao, Wanggang, Gaodong, Caolu, Hangtou, Huinan and Xinchang); 10 in category C (Sanlin, Gaoqiao, Chuansha, Jinqiao, Kangqiao, Zhangjiang, Yingbo, Beicai, Zhoupu and Gaohang); 12 in category D (Lianyang, Shanggang, Dongming, Yangjing, Zhoujiadu, Lujiazui, Weifang, Nanmatou, Puxing, Hudong, Jinyang and Tangqiao). The samples are representative and the sample size satisfies the needs of research.

The second survey was conducted in December 2016 focusing on measuring the GPs' emotional exhaustion, affective commitment and turnover intention. The second questionnaire was sent out to the GPs in 40 community health centers according to the encoding information in the first survey. 1261 questionnaires were sent out and 1255 were collected.

The questionnaires are eliminated if any of the following conditions occur: (1) the POS, EE, AC and TI subscales are not totally completed; (2) the responses vary regularly or show a wavy form; (3) at least three items in individual characteristics, work and organizational characteristics and family support and community environment scales are left unfilled. The valid questionnaires were encoded and software Epidata 3.1 was used to establish and merge database. The same set of data was input by two researchers respectively and logical correction error-checking program was used twice to ensure the data for analysis is reliable. After the above process, 1,145 questionnaires were identified as valid. The two questionnaire surveys and process of data collection and processing are depicted in Figure 3-1.

Figure 3-1 Process of data collection and processing in two questionnaire surveys



3.4 Statistical analysis

Software SPSS 24.0 and AMOS 24.0 are used for statistical analysis.

Reliability analysis: Cronbach's α coefficient is used for reliability analysis to assess the internal consistency of scales. Generally, when Cronbach's α is greater than 0.7, the scale has good reliability.

Validity analysis: factor analysis is used to test the validity of scales. KMO and Bartlett test are used to determine whether the scales are suitable for factor analysis. Exploratory factor analysis (EFA) is used for exploratory analysis of scales' construct validity; confirmatory factor analysis (CFA) is used for confirmatory analysis of scales' construct

validity. Generally, when KMO >0.70 and P<0.05 (Bartlett test), the factor analysis is very preferred for this study. After EFA and CFA, items that do not meet the requirements of scale dimensions are eliminated and scales' validity is tested.

Statistical description: when the statistical data obeys normal distribution, Mean±Std is used for statistical description. Otherwise, median (interquartile range) is used for statistical description. Counting data is statistically described by frequency.

Correlation analysis: Pearson correlation analysis is used to measure the quantitative data and the correlation between two variables; Spearman correlation analysis is used to measure the ordinal variables and the correlation between two variables.

Variance Analysis: for statistical data obeying homogeneity of variances, t test or variance analysis is used for difference test and LSD method is used for pairwise comparison among groups; for statistical data with heterogeneity of variances, Kruskal-Wallis H is used for difference test.

Construction of structural equation model: the structural equation model for the research hypotheses is established using AMOS then the model path coefficient is estimated and tested. The model fitting index is used to judge the fitting degree of the actual data structure and the theoretical data structure. The criterions of relevant fitting indices are shown in Table 3-2.

Test standard α=0.05.

Table 3-2 SEM fit index name and their critical values

Structural fit index	Code	Critical value
Chi-square - DOF ratio	CMIN/DF	<3.0～5.0
Root Mean Square Error of Approximation	RMSEA	<0.50～0.80
Normal Fit Index	NFI	>0.90
Relative Fit Index	RFI	>0.90
Incremental Fit Index	IFI	>0.90
Tack-Lewis Index	TLI	>0.90
Comparative Fit Index	CFI	>0.90
Parsimonious Normed Fit Index	PNFI	>0.50

Source: Wu, M. L. (2009).

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Chapter 4: Results

4.1 Basic characteristics of community GPs

4.1.1 Individual characteristics

Among 1145 general practitioners, female GPs account for 65.64% of the total; GPs aged 30-39 account for 46.85%; 91.58% are married; 79.55% are holders of bachelor degree; 75.39% have intermediate title; 94.75% are living with their family; 89.58% of GPs are full-time general practitioners; 70.11% are ordinary medical staff; 62.80% obtained the general practitioner qualification certificate through national examination; the GPs' average length of service is 17.05± 8.12 years; the median of working years is 12.00 (15.00) years. Table 4-1 reports the general characteristics of the sample.

4.1.2 Work and organizational characteristics

Survey shows that the average daily working hours are 7.81± 0.84; the average weekly working days are 5.05± 0.34; the median of times of monthly duty is 1.00 (4.00) time; the median of pre-tax annual salary in 2015 is 100 thousand (50thousand) yuan; the estimated median of pre-tax annual salary in 2016 is 100 thousand (41.4 thousand) yuan; the median of receiving training is 10.00 (9.75) times; the median of cumulative number of receiving training days is 10.00 (10.00) days.

What is more, currently, the social insurances covering the GPs include insurance for urban workers (99.30%), pension (95.87%), unemployment insurance (88.15%) and employment injury insurance (67.69%), as shown in Table 4-2; the mean value (±STD) of item "Do you know the incentive measures stipulated in the 'Eight Incentive Policies'?" is 3.25±0.83; the mean value (±STD) of item "Are you satisfied with your benefits from the 'Eight Incentive Policies'?" is 3.11±0.84.

Table 4-1 Basic information of community general practitioners

Variable	Classification	n	%
Gender[a]	Male	392	34.36
	Female	749	65.64
Age[b]	18-29	68	5.95
	30-39	536	46.85
	40-49	449	39.25
	Over 50	91	7.95
Marital status[c]	Unmarried	65	5.70
	Married	1045	91.58
	Others (divorced)	31	2.72
Education background[d]	Technical secondary school or college degree	114	9.96
	Bachelor	910	79.55
	Master	120	10.49
Professional title[e]	Primary	181	15.85
	Intermediate	861	75.39
	Vice senior and senior	100	8.76
Living conditions[f]	Living with family	1082	94.75
	Living apart from family	41	3.59
	Others	19	1.66
Position[g]	Full-time general practitioners	1023	89.58
	Administrative post	66	5.78
	Others	53	4.64
Administrative post[h]	Director of community health centers	28	2.45
	Deputy director	52	4.56
	Middle-level managers	158	13.85
	Heads of departments	103	9.03
	Ordinary medical staff	800	70.11
Methods of obtaining general practitioner qualification certificate [i]	Job-transfer training	177	15.57
	National examination	714	62.80
	Standardized training	246	21.63

Note: a. the multiple choice of gender is left unchecked by four GPs; b. the multiple choice of age is left

unchecked by one GP; c. the multiple choice of marital status is left unchecked by four GPs; d. the multiple choice of education background is left unchecked by one GP; e. the multiple choice of professional title is left unchecked by three GPs; f. the multiple choice of living conditions is left unchecked by three GPs;g. the multiple choice of position is left unchecked by three GPs; h. the multiple choice of administrative post is left unchecked by four GPs; i. the multiple choice of obtaining GP qualification certificate is left unchecked by eight GPs.

Table 4-2 Work and organizational characteristics

Item	Classification	n	%
Benefits (Consider each of the choices separately and select all that apply)[a]	Pension	1092	95.87
	Insurance for urban workers	1131	99.30
	Employment injury insurance	771	67.69
	Unemployment insurance	1004	88.15
	Maternity insurance	633	55.58
	Housing allowance	355	31.17
	Transportation allowance	663	58.21
	Preferential education policies for Children	100	8.78
	Others	27	2.37

Note: a. the multiple choice of welfare treatment is left unchecked by six GPs.

4.1.3 Family Support and community environment

According to Table 4-3, concerning GPs' evaluation on family support, their approval degree of item "My family supports my work" is 4.05±0.72; their approval degree of item "My family is proud of my job" is 3.66±0.82; their approval degree of item "My family ensures my sufficient work time" is 4.01±0.67; their approval degree of item "When I encounter difficulties, I can get help from my family" is 3.92±0.79;

Concerning the GPs' evaluation on community environment, the mean value (±STD) of item "The degree to which the local residents respect your work" is 3.48±0.72; the mean value (±STD) of item "How well the local residents cooperate with your work?" is 3.55±0.62.

Table 4-3 GPs' evaluation on family support and community environment [a]

External environment	Code	Item	N	Min	Max	Mean±STD
Family support	FE1	My family supports my work.	1140	1	5	4.05±0.72
	FE2	My family is proud of my job.	1140	1	5	3.66±0.82
	FE2	My family ensures that I can have sufficient time for work.	1140	1	5	4.01±0.67
	FE4	When I encounter difficulties, I can get help from my family.	1140	1	5	3.92±0.79
Community environment	SE1	The degree to which the local residents respect your work.	1138	1	5	3.48±0.72
	SE2	How well the local residents cooperate with your work?	1137	1	5	3.55±0.62

Note: a. the items of family support are left unchecked by five GPs; the items of community environment are left unchecked by five to eight GPs.

4.2 Reliability test of Scales

4.2.1 Perceived Organizational Support

According to the exploratory factor analysis results of eight items of POS scale, KMO=0.904>0.70 and P<0.001 (Bartlett test), which meets the requirements of factor analysis. Factors are rotated using varimax method and principal components whose eigenvalues are greater than 1 are extracted as factors. Two common factors are extracted with items 1-5 and 8 sharing one common factor and items 6 and 7 sharing another, which is inconsistent with the unidimensionality of original scale. Therefore, the item 6 and 7 are eliminated and other six are reserved.

The second exploratory factor analysis result shows that KMO=0.919>0.70 and P<0.001 (Bartlett test), which meets the requirements of factor analysis; one common factor is extracted from six items and the variance contribution rate is 75.764%. The factor loading of

each item is shown in Table 4-4.

Table 4-4 Exploratory factor analysis results of POS scale

Item	Factor loading
1 My organization strongly considers my goals	0.893
2 Help is available from my organization when I have a problem.	0.912
3 My organization really cares about my well-being.	0.911
4 My organization would forgive an honest mistake on my part.	0.837
5 My organization is willing to help me, if I need a special favor.	0.878
8 My organization cares about my opinions.	0.783

The reliability analysis of POS scale containing 6 items is conducted. The analysis result shows Cronbach's $\alpha=0.933>0.70$, indicating the POS scale has good reliability.

4.2.2 Emotional Exhaustion

The analysis result shows KMO=0.892>0.70, P<0.001 (Bartlett test), which meets the requirement of analysis factor. One common factor is extracted from six items, which is consistent with the unidimensionality of original scale.

According to the confirmatory factor analysis, the modification index of item 1, item 5 and other four items is all big, which is inconsistent with the structural requirements initially set by the scale, therefore, the item 1 and item 5 are deleted. According to the second exploratory factor analysis, KMO=0.826, the overall variance contribution rate is 75.661%. The factor loading of each item is shown in Table 4-5.

Table 4-5 Exploratory factor analysis results of EE scale

Item	Factor loading
2.I feel exhausted after I get out of work.	0.871
3. When I get up in the morning and have to face whole day's work, I feel very tired.	0.913
4. Working all day puts great pressure on me.	0.912
6. Since I began to do this job, I have become less interested in it.	0.776

The reliability analysis result of EE scale shows Cronbach's $\alpha=0.892>0.70$, indicating

the EE scale has good reliability.

4.2.3 Affective Commitment

The analysis result shows KMO=0.871>0.70, P<0.001 (Bartlett test), which meets the requirement of analysis factor. One common factor is extracted from six items, which is consistent with the unidimensionality of original scale.

According to the confirmatory factor analysis, the modification index of item 1, item 2 and other four items is all big, which is inconsistent with the structural requirements initially set by the scale, therefore, the item 1 and item 2 are deleted. According to the second exploratory factor analysis, KMO=0.813, the overall variance contribution rate is 73.720%. The factor loading of each item is shown in Table 4-6.

Table 4-6 Exploratory factor analysis results of AC scale

Item	Factor loading
3. I am affectively more committed to this hospital than any others.	0.775
4. I really feel I am a member of the hospital.	0.843
5. I really feel an emotional tie to the hospital.	0.900
6 .The hospital means much to me.	0.909

The reliability analysis result of AC scale shows Cronbach's α=0.875>0.70, indicating the AC scale has good reliability.

4.2.4 Turnover Intention

According to the exploratory factor analysis results of TI scale, KMO=0.771>0.70 and P<0.001 (Bartlett test), which meets the requirements of factor analysis. One common factor is extracted from the scale comprising three items, which is consistent with the unidimensionality of original scale. The variance contribution rate is 89.918%. The factor loading of each item is shown in Table 4-7.

Table 4-7 Exploratory factor analysis results of TI scale

Item	Factor loading
1. I often have the thought of leaving the organization.	0.949
2. I want to seek employment elsewhere.	0.942
3. I always want to leave the organization within one year.	0.954

The reliability analysis result of TI scale shows Cronbach's α=0.944>0.70, indicating the TI scale has good reliability.

4.3 Current situation of the GPs' POS perception and work attitude

The overall score of each scale is the average of the summation of measured value of all items. The results are shown in Table 4-8.

4.3.1 Perceived Organizational Support

The maximum score of POS scale is 6.00 points and the minimum score is 1.00 point (average score: 4.56±0.90 point). In terms of items, POS2 scores the highest (4.78 points) and POS8 scores the lowest (4.17 points).

4.3.2 Emotional Exhaustion

The maximum score of EE scale is 6.00 points and the minimum score is 1.00 point (average score: 2.94±0.98 points). In terms of items, EE2 scores the highest (3.34 points) and EE6 scores the lowest (2.42 points).

4.3.3 Affective Commitment

The maximum score of AC scale is 6.00 points and the minimum score is 1.00 point (average score: 4.55±0.86 points). In terms of items, AC4 scores the highest (4.84 points) and AC3 scores the lowest (4.34 points).

4.3.4 Turnover Intention

The maximum score of TI scale is 6.00 points and the minimum score is 1.00 point (average score: 2.26±0.95 points). In terms of items, TI2 scores the highest (2.29 points) and TI3 scores the lowest (2.22 points).

The scores of each item of four key variables are shown in Appendix Ⅱ Table 1 ~ 4.

Table 4-8 Score of the GPs' POS, EE, AC and TI

Variable	Code	Item Number	N	Max	Min	Mean	S.D.
Perceive organizational support	POS	6	1145	6.00	1.00	4.56	0.90
Emotional exhaustion	EE	4	1145	6.00	1.00	2.94	0.98
Affective commitment	AC	4	1145	6.00	1.00	4.55	0.86
Turnover intention	TI	3	1145	6.00	1.00	2.26	0.95

4.4 Group differences of POS, EE, AC and TI of GPs based on demographic factors

The T test orvariance analysis or Kruskal-Wallis H test is used to statistically analyze the group differences on the score of GPs' POS, EE, AC and TI due to individual, organizational and social characteristics.

4.4.1 Group differences of POS, EE, AC and TI based on individual characteristics

The overall results are reported at Table 4-9.

(1) The score of POS and AC of male GPs(POS, M=4.67, SD =.94; AC, M=4.66, SD=0.85) is significantly higher than that of female GPs(POS, M=4.50, SD =.88;AC, M=4.49, SD=0.86),(t=3.099, P<0.01; AC, t=3.125, P<0.01).

(2) The score of EE of GPs of different ages shows significant difference (H=13.757, P<0.01), among which, the scores of EE of GPs aged 40-49(M=3.00, IQR=1.25) is significantly higher than that of GPs aged below 40(EE of GPs aged18-29,M=2.75,IQR=1.25;EE of GPs aged30-39,M=2.75,IQR=1.25)(EE of GPs aged40-49vs 30-39, P=0.024;EE of GPs aged40-49vs 18-29,P=0.017)

(3)The score differences of EE of GPs with different education background are statistically significant (F=4. 480, P<0.05), among which, the score of EE of GPs with

master degree(M=2.71,SD=0.84) is significantly lower than that of GPs with college degree or below (M=3.06,SD=1.08)and bachelor degree (M=2.96,SD=0.98)(for GPs with master degree and bachelor degree, P=0.008; for GPs with master degree and college degree or below, P=0.006).

(4) The score differences of POS of GPs with different professional titles are statistically significant (F=9.946, P<0.001), among which, the score of POS of GPs with vice senior or senior title (M=4.94,SD=0.82) is significantly higher than that of POS of GPs with primary (M=4.54,SD=0.93) and intermediate title (M=4.51,SD=0.90) (for GPs with vice senior title and above and intermediate title, P<0.001; GPs with vice senior title and above and primary title, P<0.001).

(5) The score differences of POS of GPs with different positions are statistically significant (F=5.433, P<0.01), among which, the score of POS of GPs with administrative post (M=4.91,SD=0.86) is significantly higher than that of POS of full-time GPs (M=4.54,SD=0.90) and medical staff with other positions (M=4.53,SD=0.84) (for GPs with administrative post and full-time GPs, P=0.001; for GPs with administrative post and medical staff with other positions, P=0.022).

(6) The score differences of POS, AC and TI of GPs with different posts are statistically significant (POS, H=40.890,P<0.001;AC,F=3.526,P<0.01;IT, F=2.547,P<0.05), among which, compared with directors (POS, M=5.00,IQR=1.13;AC, M=4.97, SD=0.72; TI, M=1.89, SD=0.92), the ordinary medical staffers report significantly lower POS and AC and significantly higher TI (POS, M=4.67,IQR=1.00;AC,M=4.50,SD=0.88;TI, M=2.29,SD=0.94) (POS, P=0.001;AC, P=0.004;TI, P=0.031); the score of POS and AC of middle-level managers is much lower (POS, M=4.67, IQR=1.17; AC, M=4.61, SD=0.79) (POS, P=0.024; AC, P=0.038); the score of AC of heads of departments is significant lower(M=4.58,SD=0.85) (P=0.034). Compared with deputy directors(POS, M=5.00, IQR=0.79; AC, M=4.78, SD=0.73; TI, M=1.96,SD=0.95), the ordinary medical staffers report significantly lower POS and AC and significantly higher TI (POS, M=4.67, IQR=1.00; AC, M=4.50, SD=0.88; TI, M=2.29, SD=0.94)(POS, P<0.001; AC, P=0.022; TI, P=0.015); the middle-level managers have lower POS (M=4.67, IQR=1.17)and higher TI (M=2.25, SD=0.94) (POS, P=0.004; TI, P=0.043).

(7) The score differences of EE of GPs acquiring GP qualification certificate (GPQC)through different means are statistically significant (F=3.536,P<0.05), among which, the score of EE of GPs acquiring GPQC through job-transfer training(M =3.08, SD=0.97) is significantly higher than that of EE of GPs achieving this through standardized training

(M=2.83, SD=0.99) (P=0.008).

Table 4-9 Analysis results of group difference of POS,EE,AC and TI scales based on individual characteristics

Demographic factors	Group	N	POS			EE			AC			TI		
			M	SD/IQR	Statistics	M	SD/IQR	Statistics	M	SD/IQR	Statistics	M	SD/IQR	Statistics
Sex	Male	392	4.67	0.94	3.099**	2.91	1.01	-0.771	4.66	0.85	3.125**	2.23	0.99	-0.557[b]
	Female	749	4.50	0.88		2.96	0.96		4.49	0.86		2.27	0.93	
Age	18-29	68	4.60	0.83	1.897	2.75	1.25	13.575**[a]	4.75	1.00	4.325[a]	2.28	0.95	1.102
	30-39	536	4.58	0.86		2.75	1.25		4.75	1.00		2.22	0.96	
	40-49	449	4.49	0.93		3.00	1.25		4.50	1.00		2.31	0.92	
	over 50	91	4.72	1.06		2.75	1.75		4.75	1.50		2.17	0.97	
Marital status	Unmarried	65	4.41	0.94	1.603	2.80	1.04	1.072	4.37	0.79	1.629	2.49	0.92	2.171
	Married	1045	4.57	0.89		2.96	0.98		4.56	0.86		2.24	0.95	
	Others	31	4.38	1.12		2.83	0.78		4.46	0.94		2.32	0.91	
Education background	College or below	114	4.44	1.03	2.106	3.06	1.08	4.480*	4.67	0.90	1.309	2.30	0.94	0.880
	Bachelor	910	4.56	0.90		2.96	0.98		4.53	0.87		2.24	0.95	
	Master	120	4.68	0.83		2.71	0.84		4.55	0.75		2.35	0.98	
Professional title	Primary	181	4.54	0.93	9.946***	2.80	0.96	2.579	4.53	0.86	0.837	2.22	0.94	0.975
	Intermediate	861	4.51	0.90		2.98	0.99		4.54	0.87		2.28	0.95	
	vice senior or above	100	4.94	0.82		2.97	0.88		4.65	0.81		2.15	0.91	
Living condition	Living with family	1082	4.67	1.00	0.951a	2.96	0.97	1.636	4.55	0.86	2.222	2.24	0.94	2.951
	Living apart from family	41	4.67	1.25		2.70	1.00		4.29	0.97		2.60	1.07	
	Others	19	4.83	1.67		2.78	1.12		4.72	0.78		2.14	0.90	
Working position	Full-time GP	1023	4.54	0.90	5.433**	2.94	0.99	0.413	4.54	0.87	1.072	2.26	0.95	1.384
	Administrative management	66	4.91	0.86		2.91	0.90		4.66	0.78		2.07	0.91	
	Others	53	4.53	0.84		3.06	0.91		4.66	0.75		2.28	0.88	
Administrative post	Director	28	5.00	1.13	40.890***[a]	2.62	0.75	1.865	4.97	0.72	3.526**	1.89	0.92	2.547*
	Deputy director	52	5.00	0.79		3.05	1.14		4.78	0.73		1.96	0.95	
	Middle-level manager	158	4.67	1.17		2.85	0.89		4.61	0.79		2.26	0.96	
	Heads of departments	103	4.83	1.67		3.09	0.97		4.58	0.85		2.25	0.94	
	Ordinary medical staff	800	4.67	1.00		2.95	0.99		4.50	0.88		2.29	0.94	
Means of acquiring GPQC	Job-transfer training	177	4.70	0.98	2.636	3.08	0.97	3.536*	4.57	0.89	0.107	2.15	0.96	1.800
	National examination	714	4.53	0.88		2.95	0.96		4.54	0.85		2.26	0.95	
	Standardized training	246	4.53	0.90		2.83	0.99		4.53	0.87		2.32	0.93	

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Note: a. According to the analysis results of Levene test, the variance shows heterogeneity. Therefore, Kruskal-Wallis H test is adopted, with central tendency represented by median M and dispersion tendency represented by interquartile range IQR; b. The TI score variance of GPs of different genders shows nonhomogeneity; the statistics t and P value are used on condition of not assuming homogeneity of variances; ***. P<0.001 ; **. P<0.01 ; *.P<0.05

4.4.2 Group differences of POS, EE, AC and TI based on work and organizational characteristics

The results are reported at Table 4-10.

(1) The score differences of POS, EE, AC and TI of GPs on different level knowledge of the "Eight Incentive Policies" are statistically significant (POS, H=95.617, P<0.001; EE, F=2.671, P<0.05; AC, F=8.939, P<0.001; TI, F=3.881, P<0.01). Compared with GPs totally clear about the "Eight health interim measures"(POS, M=5.50, IQR=1.00; EE, M=2.69, SD=0.98; AC, M=4.98, SD=0.83; TI, M=1.87, SD=1.02), those with other responses have lower POS (clear, M=4.83, IQR=1.67; basically clear, M=4.67, IQR=1.00; not clear, M=4.50, IQR=1.17; totally unclear, M=4.17, IQR=1.67)and AC (clear, M=4.60, SD=0.83; basically clear, M=4.54, SD=0.84; not clear, M=4.29, SD=0.90; totally unclear, M=4.22, SD=1.15) and higher TI (clear, M=2.27, SD=0.91; basically clear, M=2.27, SD=0.96; not clear, M=2.30, SD=0.92; totally unclear, M=2.56, SD=1.04) (POS, P<0.001; AC, P<0.05; TI, P<0.01); those who are basically clear or not clear about the preferential policies have higher EE (basically clear, M=2.93, SD=0.94; not clear, M=3.15, SD=1.08)(P<0.05). Compared with GPs clear about the "Eight health interim measures"(POS, M=4.83, IQR=1.67, EE, M=2.95, SD=0.99; AC, M=4.60, SD=0.83), those who are not clear or know nothing about the preferential policies harbor lower POS (not clear, M=4.50, IQR=1.17; totally unclear, M=4.17, IQR=1.67) and AC (not clear, M=4.29, SD=0.90; totally unclear, M=4.22, SD=1.15)(POS, P<0.05; AC, P<0.05);those who basically know these policies have lower POS (M=4.67, IQR=1.00)(P<0.001); those responding by saying they are not clear about these policies suffer higher EE (M=3.15, SD=1.08)(P<0.05). Compared with GPs basically clear about these policies (EE, M=2.93, SD=0.94; AC, M=4.54, SD=0.84), those not clear about those preferential policies experience higher EE (M=3.15, SD=1.08) and lower AC (M=4.29, SD=0.90) (EE, P<0.05; AC, P<0.01); those totally unclear about these policies have lower AC(M=4.22, SD=1.15) (P<0.05).

(2) The score differences of POS, EE, AC and TI of GPs with different satisfaction with the “Eight incentive policies” are statistically significant (POS, H=126.486, P<0.001; EE, F=9.936, P<0.001; AC, H=41.622, P<0.001; TI, F=4.242, P<0.01). Compared with GPs who are extremely satisfied with the “Eight health interim measures” (POS, M=5.42, IQR=1.00; EE, M=2.68, SD=0.97; AC, M=5.00, IQR=1.75; TI, M=2.02, SD=1.05), those expressing “satisfied”, “basically satisfied”, “dissatisfied”, “extremely dissatisfied” report lower POS score (satisfied, M=5.00, IQR=0.67; basically satisfied, M=4.67, IQR=1.00; dissatisfied, M=4.33, IQR=1.16; extremely dissatisfied, M=4.17, IQR=1.50) (P<0.01); those who are basically satisfied or dissatisfied with those policies have higher EE (basically satisfied, M=2.96, SD=0.95; dissatisfied, M=3.27, SD=0.97) and TI (basically satisfied, M=2.30, SD=0.91; dissatisfied, M=2.38, SD=0.98) (EE, P<0.05; TI, P<0.05); Those expressing “dissatisfied” have lower AC(M=4.25, IQR=1.25) (P<0.05); Compared with GPs who are satisfied with those preferential policies (POS, M=5.00, IQR=0.67; EE, M=2.73, SD=0.93; AC, M=5.00, IQR=0.56; TI, M=2.09, SD=0.95), those who are “basically satisfied”, “dissatisfied” and “extremely dissatisfied” have lower POS (basically satisfied, M=4.67, IQR=1.00; dissatisfied, M=4.33, IQR=1.16; extremely dissatisfied, M=4.17, IQR=1.50) and AC (basically satisfied, M=4.50, IQR=1.00; dissatisfied, M=4.25, IQR=1.25; extremely dissatisfied, M=4.50, IQR=1.25) (POS, P<0.01; AC, P<0.001); those who are “basically satisfied” or “dissatisfied” have higher EE (basically satisfied, M=2.96, SD=0.95; dissatisfied, M=3.27, SD=0.97) and TI (basically satisfied, M=2.30, SD=0.91; dissatisfied, M=2.38, SD=0.98) (EE, P<0.01; TI, P<0.01). Compared with GPs who are basically satisfied (POS, M=4.67, IQR=1.00; EE, M=2.96, SD=0.95), those who are dissatisfied with those policies have lower POS (M=4.33, IQR=1.16) and suffer higher EE (M=3.27, SD=0.97) (POS, P<0.01; EE, P<0.001).

Table 4-10 Analysis results of group difference of POS, EE, AC and TI scales based on work and organizational characteristics

Questions	Response levels	N	POS			EE			AC			TI		
			M	IQR	Statistics	M	SD	Statistics	M	SD/IQR	Statistics	M	SD	Statistics
Knowledge of in “Eight Incentive Policies”?	Totally unclear	29	4.17	1.67	95.617***[a]	2.93	0.96	2.671*	4.22	1.15	8.939***	2.56	1.04	3.881**
	Unclear	128	4.50	1.17		3.15	1.08		4.29	0.90		2.30	0.92	
	Basically clear	573	4.67	1.00		2.93	0.94		4.54	0.84		2.27	0.96	
	Clear	334	4.83	1.67		2.95	0.99		4.60	0.83		2.27	0.91	
	Totally clear	70	5.50	1.00		2.69	0.98		4.98	0.83		1.87	1.02	
Satisfaction of “Eight Incentive Policies”?	Extremely dissatisfied	31	4.17	1.50	126.486***[a]	3.06	1.12	9.936***	4.50	1.25	41.622***[a]	2.42	1.07	4.242**
	Unsatisfied	185	4.33	1.16		3.27	0.97		4.25	1.25		2.38	0.98	
	Basically satisfied	589	4.67	1.00		2.96	0.95		4.50	1.00		2.30	0.91	
	Satisfied	246	5.00	0.67		2.73	0.93		5.00	0.56		2.09	0.95	
	Extremely satisfied	62	5.42	1.00		2.68	0.97		5.00	1.75		2.02	1.05	

Note: a. According to the analysis results of Levene test, the variance shows heterogeneity. Therefore, Kruskal-Wallis H test is adopted with central tendency represented by median M and dispersion tendency represented by interquartile range IQR; ***. P<0.001；**. P<0.01；*.P<0.05.

4.4.3 Group differences of POS, EE, AC and TI based on family support and community environment

The results are reported at Table 4-11.

(1) The score differences of POS, EE, AC and TI of GPs with varying degrees of agreement that their families are supportive of their work are statistically significant (POS, H=119.881, P<0.001; EE, H=38.950, P<0.001; AC, H=45.255, P<0.001; TI, F=7.578, P<0.001).Compared with GPs who extremely agree that their families are very supportive of their work(POS, M=5.00, IQR=1.17; EE, M=2.75, IQR=1.50; AC, M=5.00, IQR=1.25; TI, M=2.02, SD=0.96), those who agree with the statement have significantly lower POS (M=4.67, IQR=0.83)and AC(M=4.75, IQR=1.00) and higher TI(M=2.30, SD=0.92)(POS, P<0.001; AC, P<0.001; TI, P<0.001);those who neither agree nor disagree with the statement have significantly lower POS (M=4.17, IQR=1.33)and AC (M=4.25, IQR=1.25)and higher EE (M=3.25, IQR=1.25) and TI(M=2.45, SD=0.95)(P<0.001).Compared with GPs who agree their families are supportive of their work (POS, M=4.67, IQR=0.83; AC, M=4.75, IQR=1.00; EE, M=2.90, IQR=0.93), those who neither agree nor disagree with the statement have significantly lower POS (M=4.17, IQR=1.33)and AC (M=4.25, IQR=1.25) and suffer significantly higher EE(M=3.25, IQR=1.25)(POS, P<0.001; AC, P<0.01; EE, P<0.001).

(2) The score differences of POS, EE, AC and TI of GPs with varying degrees of agreement that their families are proud of their work are statistically significant (POS, H=116.719, P<0.001; EE, F=6.098, P<0.001; AC, F=9.170, P<0.001; TI, F=3.845, P<0.01).Compared with GPs who extremely agree with the statement(POS, M=5.00, IQR=1.17; AC, M=4.78, SD=0.86; EE, M=2.79, SD=1.05; TI, M=2.08, SD=1.00), those who agree have lower POS (M=4.83, IQR=1.67)and AC (M=4.62, SD=0.82) and higher TI (M=2.21, SD=0.94)(POS, P<0.001; AC, P<0.05; TI, P<0.05); those who neither agree nor disagree and disagree have lower POS (neither agree nor disagree, M=4.50, IQR=1.17; disagree, M=4.17, IQR=1.25)and AC (neither agree nor disagree, M=4.41, SD=0.82; disagree, M=4.26, SD=1.16)and higher EE (neither agree nor disagree, M=3.07, SD=0.97; disagree, M=3.16, SD=1.01) and TI (neither agree nor disagree, M=2.35, SD=0.90; disagree, M=2.44, SD=1.09)(POS, P<0.001; AC, P<0.01; EE, P<0.05; TI, P<0.05); those who extremely disagree have lower POS (M=3.00, IQR=3.00)and higher EE (M=3.88, SD=1.00)(POS, P<0.05; EE, P<0.05);compared with GPs who agree that their families are proud of their work(POS, M=4.83, IQR=1.67; AC, M=4.62, SD=0.82; EE, M=2.85,

SD=0.93), those who neither agree nor disagree have lower POS(M=4.50, IQR=1.17) and AC (M=4.41, SD=0.82)and higher EE (M=3.07, SD=0.97)and TI (M=2.35, SD=0.90)(POS, P<0.001; AC, P<0.001; EE, P<0.01; TI, P<0.05); those who disagree have lower POS (M=4.17, IQR=1.25)and AC (M=4.26, SD=1.16)(POS, P<0.001; AC, P<0.01);those who extremely disagree have higher EE(M=3.88, SD=1.00) (P<0.05); compared with GPs who neither agree nor disagree with the statement(M=3.07, SD=0.97), those who extremely disagree experience higher EE (M=3.88, SD=1.00) (P<0.05).

(3) The score differences of POS, EE, AC and TI of GPs with varying degrees of agreement that their families can ensure their sufficient work time are statistically significant (POS, F=24.300, P<0.001; EE, F=8.054, P<0.001; AC, F=9.023, P<0.001; TI,H=25.912, P<0.001).Compared with GPs who extremely agree with the statement(POS, M=4.94, SD=0.92; AC, M=4.76, SD=0.90; EE, M=2.80, SD=1.04; TI, M=2.00, IQR=2.00), those who agree with it have lower POS (M=4.55, SD=0.84) and AC (M=4.55, SD=0.82) and higher TI (M=2.33, IQR=1.67) (POS, P<0.001; AC, P<0.01; TI,P<0.01); those who neither agree nor disagree have lower POS (M=4.21, SD=0.85) and AC (M=4.34, SD=0.87)and higher EE(M=3.24, SD=0.99) and TI (M=3.00, SD=1.08) (POS, P<0.001; AC, P<0.001; EE, P<0.001; TI, P<0.001); those who disagree have lower POS (M=3.66, SD=1.04) and AC (M=3.88, SD=1.22) (POS, P<0.001; AC, P<0.001); those who extremely disagree have higher EE(M=4.75, SD=1.41)(P<0.01).Compared with GPs who agree with the statement(POS, M=4.55, SD=0.84; AC, M=4.55, SD=0.82; EE, M=2.90, SD=0.93), those who neither agree nor disagree and disagree have lower POS (neither agree nor disagree, M=4.21, SD=0.85; disagree, M=3.66, SD=1.04)and AC(neither agree nor disagree, M=4.34, SD=0.87; disagree, M=3.88, SD=1.22) (POS, P<0.001; AC,P<0.01); those who neither agree nor disagree and extremely disagree have higher EE (neither agree nor disagree, M=3.24, SD=0.99; extremely disagree, M=4.75, SD=1.41) (P<0.01).Compared with GPs who neither agree nor disagree(POS, M=4.21, SD=0.85; AC, M=4.34, SD=0.87; EE, M=3.24, SD=0.99), those who disagree have lower POS (M=3.66, SD=1.04)and AC (M=3.88, SD=1.22)(POS, P<0.05; AC,P<0.05); those who extremely disagree suffer higher EE (M=4.75, SD=1.41)(P<0.05).Compared with GPs who disagree(M=3.10, SD=0.91), those who extremely disagree experience higher EE (M=4.75, SD=1.41)(P<0.05).

(4) The score differences of POS, EE, AC and TI of GPs with varying degrees of agreement that their families can help them when encountering difficulties are statistically significant (POS, H=94.597, P<0.001; EE, F=5.702, P<0.001; AC, F=8.200, P<0.001; TI, F=5.573, P<0.001).Compared with GPs who extremely agree with the statement(POS,

M=5.00, IQR=1.33; AC, M=4.78, SD=0.89; EE, M=2.75.SD=1.02; TI, M=2.01, SD=0.98), those who agree and neither agree nor disagree have lower POS (agree, M=4.67, IQR=1.00; neither agree nor disagree, M=4.33, IQR=1.33) and AC (agree, M=4.53, SD=0.81; neither agree nor disagree, M=4.45, SD=0.86) and higher EE (agree, M=2.94, SD=0.96; neither agree nor disagree, M=3.11, SD=0.93) and TI (agree, M=2.31, SD=0.92; neither agree nor disagree, M=2.35, SD=0.95) (POS, P<0.001; AC, P<0.001; EE, P<0.01; TI, P<0.001); those who disagree have lower POS (M=4.33, IQR=1.50) and AC (M=4.13, SD=1.10)and higher TI (M=2.37, SD=1.03) (POS, P<0.001; AC, P<0.001; TI, P<0.05);those who extremely disagree have lower POS (M=3.83, IQR=2.06)and AC(M=4.10, SD=1.11) and higher EE(M=3.56, SD=1.07) (POS, P<0.01; AC, P<0.01; EE, P<0.01);compared with GPs who agree with the statement (POS, M=4.67, IQR=1.00; EE, M=2.94, SD=0.96; AC, M=4.53, SD=0.81), those who neither agree nor disagree have lower POS (M=4.33, IQR=1.33) and higher EE (M=3.11, SD=0.93)(POS, P<0.05; EE, P<0.05);those who disagree have lower AC (M=4.13, SD=1.10) (P<0.05);those who extremely disagree have higher EE(M=3.56, SD=1.07) (P<0.05).

(5) The score differences of POS, EE, AC and TI of GPs thinking local residents have varying respect for their work are statistically significant (POS, H=72.549, P<0.001;EE, F=8.047, P<0.001; AC, F=4.943, P<0.001; TI, F=4.593,P<0.01).Compared with GPs who think local residents greatly respect their work (POS, M=5.08, IQR=1.16; AC, M=4.92, SD=0.91; EE, M=2.61, SD=1.00; TI, M=1.88, SD=0.99), those who respond with “relatively respect” have lower POS (M=4.83, IQR=0.67)and AC (M=4.60, SD=0.83) and higher TI (M=2.19, SD=0.93) (POS, P<0.05; AC, P<0.01; TI,P<0.05); those who respond with “neither respect nor disrespect” and “disrespect” have lower POS (neither respect nor disrespect, M=4.50, IQR=1.17; disrespect, M=4.17, IQR=1.33) and AC (neither respect nor disrespect, M=4.45, SD=0.85; disrespect, M=4.51, SD=1.05) and higher EE (neither respect nor disrespect, M=2.99, SD=0.98; disrespect, M=3.50, SD=0.90) and TI (neither respect nor disrespect, M=2.36, SD=0.94; disrespect, M=2.27, SD=1.03) (POS, P<0.001; AC, P<0.05; EE, P<0.01; TI, P<0.05); those who respond with “extremely disrespect” have lower POS (M=3.92, IQR=1.79) and higher EE (M=3.31, SD=1.18) (POS, P<0.01; EE, P<0.05).Compared with GPs who believe local resident show relative respect for their work(POS, M=4.83, IQR=0.67; AC, M=4.60, SD=0.83; EE, M=2.87, SD=0.95; TI, M=2.19, SD=0.93), those who respond with “neither respect nor disrespect” have lower POS (M=4.50, IQR=1.17) and AC (M=4.45, SD=0.85) and higher TI (M=2.36, SD=0.94) (POS, P<0.001; AC, P<0.01; TI, P<0.01); those who respond with “disrespect” have lower POS (M=4.17, IQR=1.33) and higher EE (M=3.50, SD=0.90) (POS, P<0.001; EE,P<0.001). Compared with

GPs who believe local residents neither respect nor disrespect their work(M=2.99, SD=0.98), those who respond with “disrespect” have higher EE (M=3.50, SD=0.90) (P<0.001).

(6) The score differences of POS, EE, AC and TI of GPs thinking local residents cooperate with their work to varying degrees are statistically significant (POS, H=81.378, P<0.001; EE, F=4.714, P<0.001; AC, F=2.904,P<0.05). Compared with GPs who think local residents are extremely cooperative with their work(POS, M=5.08, IQR=1.29; AC, M=4.81, SD=0.99; EE, M=2.77, SD=1.07), those who respond with “relatively cooperate” have lower POS (M=4.83, IQR=1.67)(P<0.01); those who respond with “neither cooperative nor uncooperative” and “uncooperative” have higher EE (neither cooperative nor uncooperative, M=3.06, SD=0.96; uncooperative, M=3.34, SD=1.21) and lower POS (neither cooperative nor uncooperative, M=4.50, IQR=1.17; uncooperative, M=4.17, IQR=1.67) and AC (neither cooperative nor uncooperative, M=4.47, SD=0.83; uncooperative, M=4.32, SD=1.28)(EE, P<0.05; POS, P<0.001; AC, P<0.05).Compared with GPs who believe local resident are relatively cooperative with their work (POS, M=4.83, IQR=1.67; AC, M=4.60, SD=0.85; EE, M=2.84, SD=0.95), those who respond with “neither cooperative nor uncooperative” have lower POS (M=4.50, IQR=1.17) and AC (M=4.47, SD=0.83)and higher EE(M=3.06, SD=0.96) (POS, P<0.001; AC, P<0.05; EE, P<0.001); those who respond with “uncooperative” have lower POS (M=4.17, IQR=1.67)and higher EE (M=3.34, SD=1.21) (POS, P<0.05;EE, P<0.05).

Table 4-11 Analysis results of group difference of POS, EE, AC and TI based on family support and community environment

Statement	Level of agreement or disagreement	N	POS			EE			AC			TI		
			M	SD/ IQR	Statistics	M	SD/ IQR	Statistics	M	SD/IQR	Statistics	M	SD/ IQR	Statistics
My family supports my work	Strongly disagree	8	4.00	1.59	119.881***[a]	3.13	1.13	38.950***[a]	4.88	0.95	45.255***[a]	2.17	0.84	7.578***
	Disagree	5	3.50	2.58		3.00	1.50		4.00	2.00		2.60	1.53	
	Neither agree nor disagree	211	4.17	1.33		3.25	1.25		4.25	1.25		2.45	0.95	
	Agree	619	4.67	0.83		2.75	1.00		4.75	1.00		2.30	0.92	
	Strongly agree	297	5.00	1.17		2.75	1.50		5.00	1.25		2.02	0.96	
My family is proud of my job	Strongly disagree	6	3.00	3.00	116.719***[a]	3.88	1.00	6.098***	4.13	1.23	9.170***	2.61	1.12	3.854**
	Disagree	57	4.17	1.25		3.16	1.01		4.26	1.16		2.44	1.09	
	Neither agree nor disagree	432	4.50	1.17		3.07	0.97		4.41	0.82		2.35	0.90	
	Agree	465	4.83	1.67		2.85	0.93		4.62	0.82		2.21	0.94	
	Strongly agree	180	5.00	1.17		2.79	1.05		4.78	0.86		2.08	1.00	
My family can guarantee my sufficient work time	Strongly disagree	2	4.00	2.12	24.300***	4.75	1.41	8.054***	4.50	0.71	9.023***	3.00	0.00	25.912***[a]
	Disagree	15	3.66	1.04		3.10	0.91		3.88	1.22		2.00	1.67	
	Neither agree nor disagree	198	4.21	0.85		3.24	0.99		4.34	0.87		3.00	1.08	
	Agree	683	4.55	0.84		2.90	0.93		4.55	0.82		2.33	1.67	
	Strongly agree	242	4.94	0.92		2.80	1.04		4.76	0.90		2.00	2.00	
I can get help from my family when I encounter	Strongly disagree	12	3.83	2.06	94.597***[a]	3.56	1.07	5.702***	4.10	1.11	8.200***	2.50	0.77	5.573***
	Disagree	31	4.33	1.50		3.05	0.86		4.13	1.10		2.37	1.03	
	Neither agree nor	237	4.33	1.33		3.11	0.93		4.45	0.86		2.35	0.95	

difficulties	disagree												
	Agree	613	4.67	1.00		2.94	0.96		4.53	0.81		2.31	0.92	
	Strongly agree	247	5.00	1.33		2.75	1.02		4.78	0.89		2.01	0.98	
local residents respect	Extremely disrespect	12	3.92	1.79	72.549***[a]	3.31	1.18	8.047***	4.71	0.71	4.943***	2.42	0.90	4.593**
	Disrespect	59	4.17	1.33		3.50	0.90		4.51	1.05		2.27	1.03	
	Neither respect or disrespect	494	4.50	1.17		2.99	0.98		4.45	0.85		2.36	0.94	
	Relatively respect	517	4.83	0.67		2.87	0.95		4.60	0.83		2.19	0.93	
	Extremely respect	56	5.08	1.16		2.61	1.00		4.92	0.91		1.88	0.99	
local residents cooperativeness	Extremely uncooperative	3	3.50	-[b]	81.378***[a]	3.42	2.16	4.714***	4.67	1.04	2.904*	2.33	1.15	2.071
	Uncooperative	19	4.17	1.67		3.34	1.21		4.32	1.28		2.07	0.91	
	Neither cooperative nor uncooperative	517	4.50	1.17		3.06	0.96		4.47	0.83		2.33	0.94	
	Relatively cooperate	550	4.83	1.67		2.84	0.95		4.60	0.85		2.21	0.95	
	Extremely cooperative	48	5.08	1.29		2.77	1.07		4.81	0.99		2.02	0.99	

Note: a. According to the analysis results of Levene test, the variance shows heterogeneity. Therefore, Kruskal-Wallis H test is adopted with central tendency represented by median M and dispersion tendency represented by interquartile range IQR; b. because there are only three samples, it is impossible to calculate the interquartile range; ***. P<0.001; **. P<0.01 ; *.P<0.05.

4.5 Correlations of demographic characteristics, POS, EE, AC and TI

The correlation analysis results (Table 4-12) of demographic characteristics, POS, EE, AC and TI show that:

(1) In terms of individual characteristics, there is positive correlation between age and EE, and there is negative correlation between educational background and EE, which are both statistically significant ($P<0.05$); there is a positive correlation between professional title and POS, which is statistically significant ($P<0.001$); there is a negative correlation between work position and POS or AC, a positive correlation between work position and TI, which are all statistically significant ($P<0.05$).

(2) In terms of work and organizational characteristics, there are positive correlation between "How much I know about the preferential policies stipulated in the 'Eight Incentive Policies for Medical Professionals in Rural Districts in Shanghai'" or "degree of satisfaction with the benefits from the preferential policies" and POS or AC , and there are negative correlation between "How much I know about the preferential policies stipulated in the 'Eight Incentive Policies for Medical Professionals in Rural Districts in Shanghai'" or "degree of satisfaction with the benefits from the preferential policies" and EE or TI, which are all statistically significant ($P<0.001$).

(3) In terms of community environment, there are positive correlations between POS or AC and local residents' respect for and cooperation with GPs' work, and there are negative correlation between EE or TI and local residents' respect for and cooperation with GPs' work, which are all statistically significant ($P<0.05$).

(4)There is a positive correlation between POS and AC ($P<0.001$); there is a negative correlation between EE and POS or AC ($P<0.001$); there is a negative correlation between POS or AC and TI ($P<0.001$); there is a positive correlation between EE and TI ($P<0.001$).

The results above provide preliminary supports for the hypotheses.

Table 4-12 Matrix of correlation analysis results of demographic characteristics, POS, EE, AC AND TI

Variable	1	2	3	4	5	6	7	8	9	10	11
1. Age	—										
2. Education	-.343**	—									
3. Professional title	.375**	.031	—								
4. Working position	-.283**	-.017	-.380**	—							
5.Policy1[b]	.074*	-.031	.067*	-.223**	—						
6.Policy2[c]	.052	-.010	.030	-.109**	.465**	—					
7.SE1[d]	.098**	-.048	.065*	-.142**	.260**	.332**	—				
8.SE2[e]	.064*	-.041	.041	-.083**	.228**	.328**	.758**	—			
9.POS	.011	.043	.085**	-.152**	.262**	.320**	.248**	.263**	—		
10.EE	.093**	-.078**	.041	.017	-.070*	-.182**	-.142**	-.130**	-.120**	—	
11.AC	.002	-.046	.032	-.079**	.141**	.190**	.102**	.102**	.317**	-.329**	—
12.TI	.022	.005	.001	.059*	-.062*	-.110**	-.104**	-.063*	-.182**	.301**	-.534**

Note： a. The bottom left part shows r value (Pearson or Spearman correlation coefficient) and top right part shows the corresponding P value: **.Correlation is significant at the 0.01 level (2-tailed); *. Correlation is significant at the 0.05 level (2-tailed).

b. Policy1 represents “How much I know about the preferential policies stipulated in the ‘Eight Incentive Policies for Medical Professionals in Rural Districts in Shanghai’”. c. Policy2 represents “degree of satisfaction with the benefits from the preferential policies”. d. SE1represents “The degree to which the local residents respect your work.” e. SE2 represents “How well the local residents cooperate with your work?”

4.6 Structural model for GPs' POS, EE, AC and TI

Based on the proposed research model (Figure 2-1), structural equation model is constructed, as depicted in Figure 4-1.

The parameter values of Model I are estimated and the model path diagram is shown in Figure 4-2. The estimated values of path coefficient and test results are listed in Table 4-13.

According to the fitting results of Model I, $\chi 2=441.757$, $P<0.001$, null hypothesis is rejected, which shows the theoretical model and actual data fail to fit. CMIN/DF=3.909<5, RMSEA=0.050, NFI=0.971>0.90, RFI=0.965>0.90, IFI=0.978>0.90, TLI=0.974>0.90, CFI=0.978>0.90, PNFI=0.807>0.50, therefore, it can be seen that the overall fitting effect of Model I is good and acceptable.

Figure 4-1 Preliminary structural equation model (Model I)

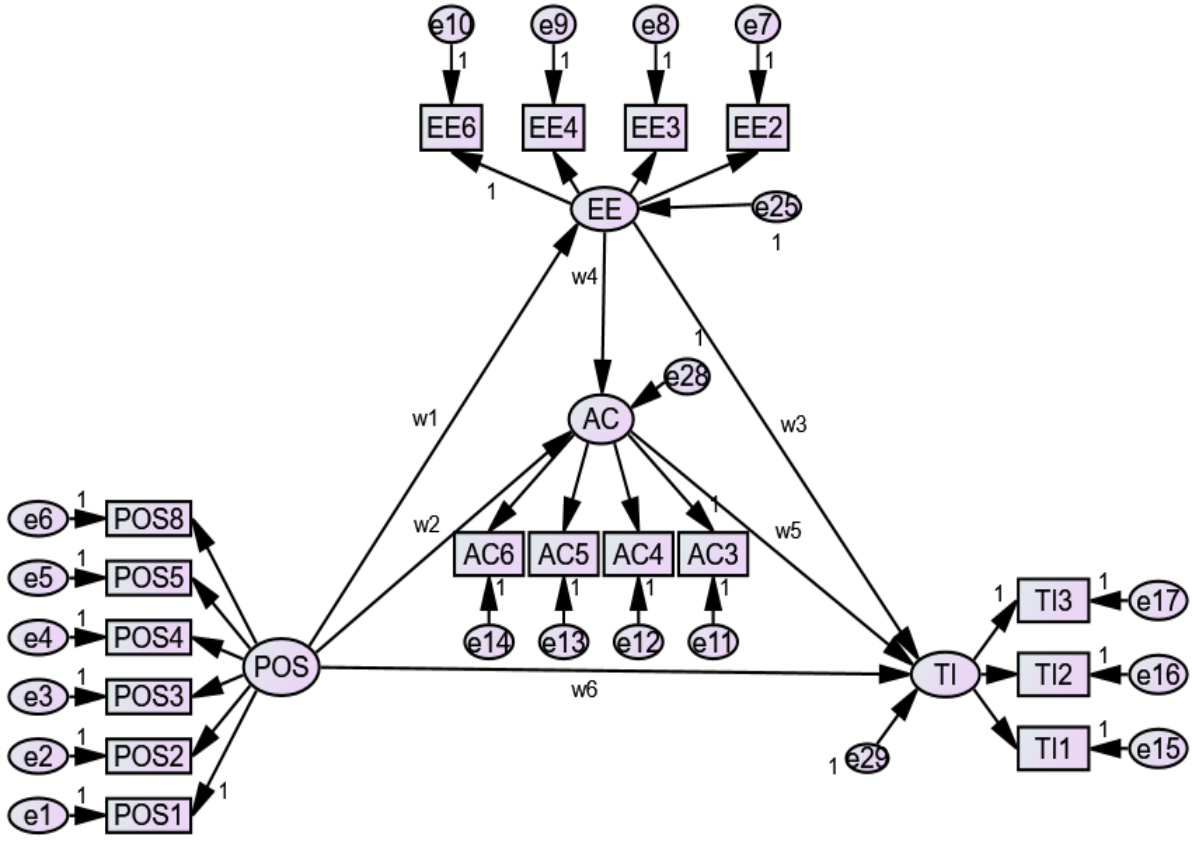
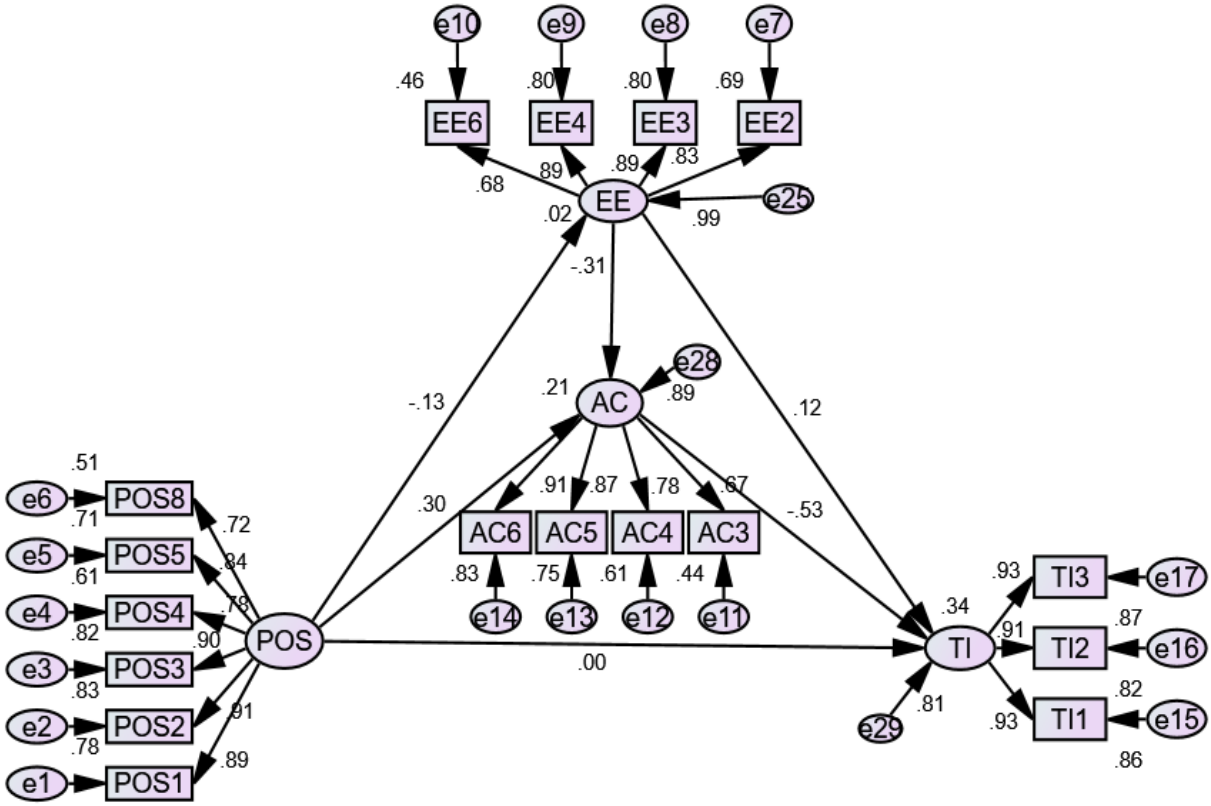


Figure 4-2 Path diagram of SEM (Model I) (standardized estimation)



According to Table 4-13, the path coefficients of POS->EE, POS->AC, EE->AC, EE->TI and AC->TI are statistically significant (P<0.001); the path coefficient of POS->TI is statistically insignificant (P>0.05).

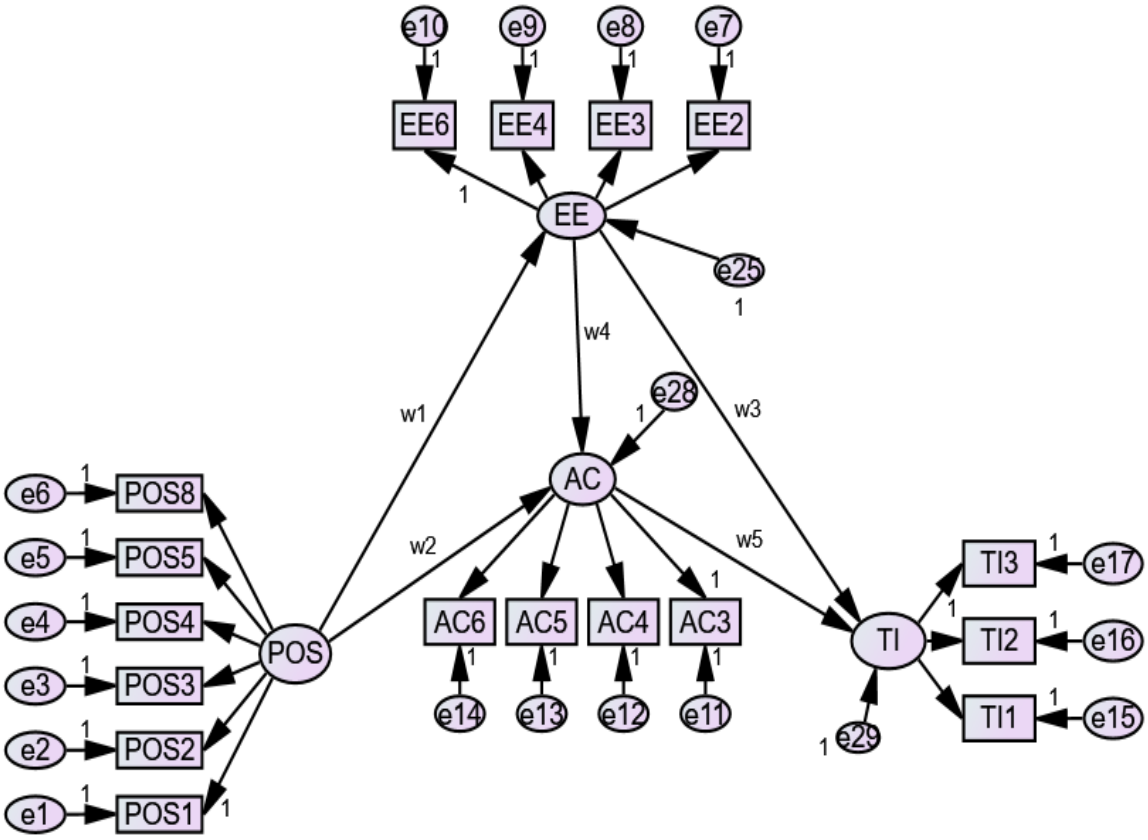
Table 4-13 Estimated and test values of SEM path coefficients (Model I)

SEM Path	Standardized path coefficient	Non-standardized path coefficient	S.E.	C.R.	P	Label
EE<---POS	-0.126	-0.102	0.026	-3.947	<0.001	w1
AC<---POS	0.301	0.251	0.026	9.630	<0.001	w2
TI<---EE	0.123	0.158	0.037	4.257	<0.001	w3
AC<---EE	-0.306	-0.314	0.034	-9.335	<0.001	w4
TI<---AC	-0.534	-0.665	0.045	-14.914	<0.001	w5
TI<---POS	0.005	0.005	0.029	0.163	0.870	w6

Based on the fitting results of Model I, after deleting statistically insignificant paths, Model II(as shown in Figure 4-3) is constructed and parameter values of model are estimated.

The path diagram is shown in Figure 4-4 and the estimated values of path coefficients and test results are listed in Table 4-14.

Figure 4-3 Structural equation model after revision (Model II)



According to the fitting results of Model II, $\chi 2=441.783$, $P<0.001$, null hypothesis is rejected, which shows the theoretical model and actual data fail to fit. CMIN/DF=3.875<5, RMSEA=0.050, NFI=0.971>0.90, RFI=0.966>0.90, IFI=0.979>0.90, TLI=0.974>0.90, CFI=0.979>0.90, PNFI=0.814>0.50, therefore, it can be seen that the overall fitting effect of Model II is good and acceptable.

According to Table 4-14, the path coefficients of POS->EE, POS->AC, EE->AC, EE->TI and AC->TI are statistically significant (P<0.001). Therefore, it can be seen that the path construction of the SEM is feasible.

Figure 4-4 Path diagram of SEM (Model II) (standardized estimation)

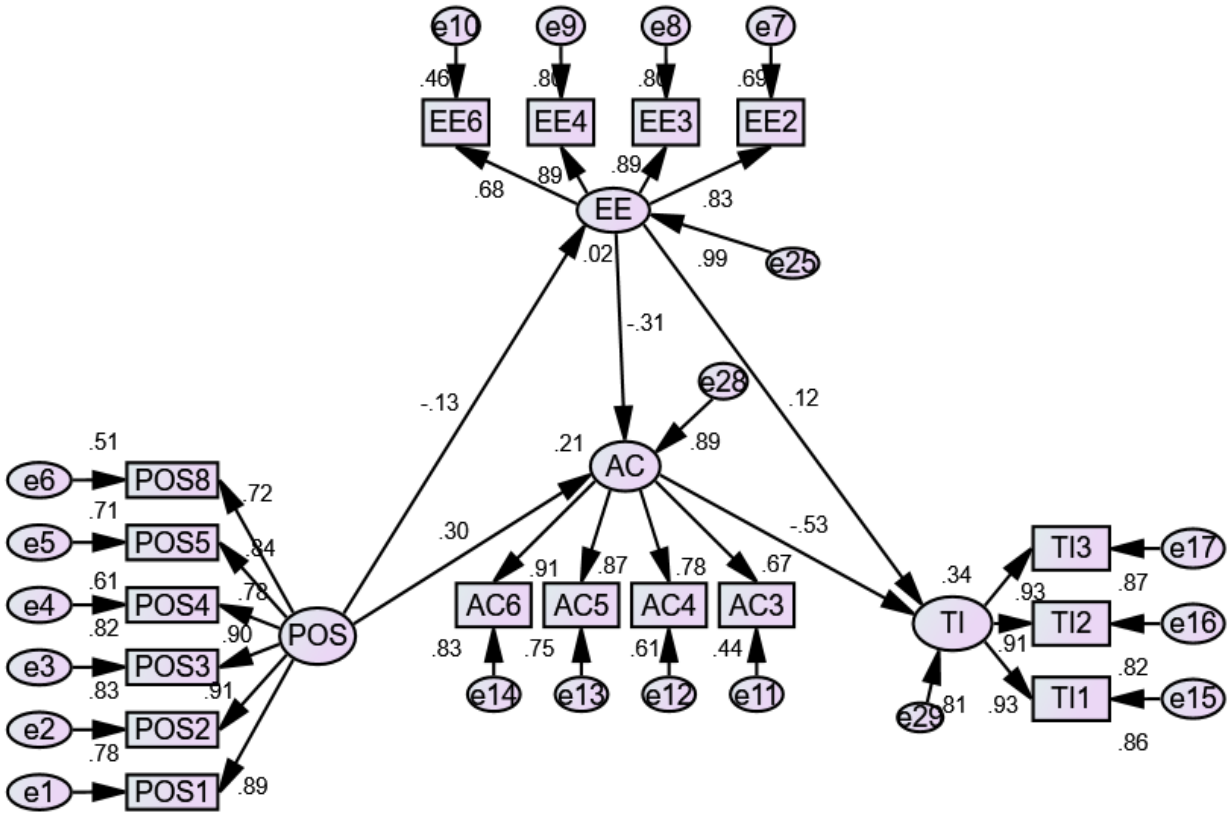


Table 4-14 Estimated and test values of SEM path coefficients (Model II)

SEM Path	Standardized path coefficient	Non-standardized path coefficient	S.E.	C.R.	P	Label
EE<---POS	-0.126	-0.102	0.026	-3.945	<0.001	w1
AC<---POS	0.301	0.251	0.026	9.637	<0.001	w2
TI<---EE	0.123	0.158	0.037	4.258	<0.001	w3
AC<---EE	-0.306	-0.314	0.034	-9.336	<0.001	w4
TI<---AC	-0.533	-0.663	0.043	-15.567	<0.001	w5

As hypotheses 7a, 7b and 8 concern mediation effect, we refer to the hypothesis 1 as the indication of the result for the direct effect between POS and TI without mediation. As the correlation is significant (-.18, $p<0.01$), we have no ground to discard in front any mediation whatever (partial or full). Therefore, H1, GPs' POS is negatively correlated with TI, is supported. According to the results reported in Table 4-13 and Table 4-14, it can be concluded that:

Hypothesis H2, GPs' POS is positively correlated with AC, is supported.

Hypothesis H3, GPs' POS is negatively correlated with EE, is supported.

Hypothesis H4, GPs' EE is positively correlated with TI, is supported.

Hypothesis H5, GPs' AC is negatively correlated with TI, is supported.

Hypothesis H6, GPs' EE is negatively correlated with AC, is supported.

The effects of different variables on TI are shown in Table 4-15. POS has indirect effect on TI, whose effect path includes: POS->EE->TI, POS->AC->TI, POS->EE->AC->TI (overall effect result is -0.196); EE can influence TI directly and indirectly (overall effect result is 0.286); AC has direct effect on TI, with effect result being -0.533.

Table 4-15 Standardized effect values of SEM (Model II)

SEM path	Direct effect	Indirect effect	Overall effect
Perceive organizational support (POS)	—	-0.196（P<0.01）	-0.196 （P<0.01）
Emotional exhaustion (EE）	0.123（P<0.01）	0.163（P<0.01）	0.286（P<0.01）
Affective commitment (AC)	-0.533（P<0.01）	—	-0.533 （P<0.01）

According to the above analysis results, the hypothesis (H7a) that EE plays a mediating role in the negative relationship between POS and TI is supported; the hypothesis (H7b) that AC plays a mediating role in the negative relationship between POS and TI is supported; the hypothesis (H8) that AC plays a mediating role in the positive relationship between EE and TI is supported.

4.7 Analysis of the effects of "Eight Incentive Policies" on the work attitude of general practitioners

4.7.1 Different effects of the implementation of "Eight Incentive Policies" on GPs

Of the 1145 GPs surveyed in this study, 21.83% of them are from category A (remote rural areas); 17.29% from category B (rural areas); 26.38% from category C (outskirts areas); 34.50% from category D (urban areas).

According to the single factor variance analysis or Kruskal-Wallis H test, the scores of POS, EE, AC and TI of GPs from different types of community health centers are shown in Table 4-16. The group differences of POS, EE, AC and TI of GPs from different types of community health centers are statistically significance (P<0.05).

According to the pair wise analysis using LSD method or non-parameter test, the score of POS of GPs from category D is higher than that of POS of GPs from category B and C; the score of AC of GPs from category B is lower than that of AC of GPs from category A and D; the TI of GPs from category D scores the lowest.

Table 4-16 Group differences of GPs from different types of community health centers

Scale	Category A (n=250)	Category B (n=198)	Category C (n=302)	Category D (n=395)	F/Chi-square	P
POS	4.67(1.00)	4.67(1.17)	4.67(1.00)	4.83(0.83)	17.187[a]	0.001
EE	2.99±0.97	2.97±0.98	3.02±0.94	2.84±1.01	2.194	0.087
AC	4.62±0.91	4.39±0.83	4.50±0.89	4.62±0.82	3.965	0.008
TI	2.28±0.96	2.39±0.90	2.31±0.98	2.13±0.93	3.998	0.008

Note: a. According to the analysis results of Levene test, the variance shows heterogeneity. Therefore, Kruskal-Wallis H test is used and the corresponding statistics represent chi-square values.

4.7.2 GPs' suggestions to the "Eight Incentive Policies"

In this study, there are 158 GPs who proposed the constructive suggestions to the policies implementation of "Eight Incentive Policies", 32.28% of which (51/158) think their pay should be raised to guarantee GPs' decent income, and the advice providers mainly come from category C (outskirts areas) (25 people, 49.02%), and most of them are ordinary medical staff (37 people, 72.55%), and most are with intermediate or primary profile (45 people, 88.24%). Around eighteen percent (17.72%, 28/158) argue that the fairness and implementation of the current "Eight Incentive Policies" are biased and some community health centers failed to really benefit from the preferential policies. The above comments mostly come from category C (outskirts areas) (16 people, 57.14%), and most of them are from ordinary medical staff (19 people, 67.86%), and from GPs with intermediate or primary profile (25 people, 89.29%). Around six percent (5.70%, 9/158) hold that the working conditions should be improved and the construction of community health centers should be

strengthened.

4.7.3 GPs' degree of satisfaction with the current situation of their jobs

Through open questions on "are you satisfied with your current work as a general practitioner?" GPs' degree of satisfaction with the current situation of their jobs is collected. Among the 256 GPs who have given their satisfaction level, 48.83% of which are unsatisfied with the current situation; 21.09% do not give a clear answer; 30.08% are basically satisfied or satisfied.

Chapter 5: Discussions

5.1 Turnover intention of GPs in Pudong New Area of Shanghai

According to the survey results, the mean of TI of GPs in Pudong New Area of Shanghai 2.26 out of 6.00, suggests the community GPs' turnover intention is relatively low. Besides, among the four categories of areas in Pudong New Area, the average TI score of 250 GPs from category A (remote rural areas) is 2.28±0.96; the average TI score of 198 GPs from category B (rural areas) is 2.39±0.90; the average TI score of 302 GPs from category C (outskirts areas) is 2.31±0.98; the average TI score of 395 GPs from category D (urban areas) is 2.13±0.93. Generally, the score of TI graded by GPs from urban areas is significantly lower than that of TI of GPs from other categories ($P<0.05$), which shows that compared with GPs from other categories, GPs from category D (urban areas) have lower TI, or in other words, they are more willing to stay with the current position. According to statistics, from 2011 to 2015, there were 68 GPs who had left their jobs in Pudong New Area, with category C (outskirts areas) contributing least to the total number of turnover, followed by category D (urban areas); category A (remote rural areas) and category B (rural areas) reported the largest number of GP turnover, which is inconsistent with the survey results of the study. The reasons behind this include: the supply of GPs in urban areas is more sufficient than that in other areas and thus it is easier for urban areas to recruit GPs; the competition for GP position in urban areas is fiercer than that in other areas and therefore urban GPs highly cherish their jobs. Therefore, the urban GPs tend to have a strong will to remain with their organizations.

5.2 Associations of individual characteristics, work and organizational characteristics and family support and community environment with GPs' TI

The survey results (Table 4-9) show that, in terms of individual characteristics, the higher administrative post the GPs have, the lower the score of TI scale is ($P<0.05$). This suggests GPs with higher administrative post has lower intention to quit and medical staff providing specific medical services has the strongest desire to leave. The reasons for this

include: the income of administration is significantly higher than that of ordinary medical staff (In this study, the annual income of chief executives in community health service centers is more than 40,000 yuan higher than that of ordinary medical staff in 2015); the community health service centers lack the teaching capability of general medicine and most GPs become physician teacher in their career ladder due to limited position of administration post. Unfortunately the community health service centers have little incentives for teaching staff of general medicine As a result, GPs tend to move upwards for administrative posts instead of physician teachers.

In terms of work and organizational characteristics, the group differences of TI by "GPs' knowledge about the 'Eight health interim measures'" and "GPs' degree of satisfaction with the benefits from the preferential policies" are significant ($P<0.05$). This shows that the GPs' knowledge of "Eight health interim measures" will affect their intendancy of turnover. The more the policy is known, the more satisfied with the preferential policies implemented by policies are, and the lower the GPs' desire to change their work units.

In terms of family support and community environment, the group differences of TI by both family support and local resident's respect and cooperation are significant ($P<0.05$). The more support the GPs can get from family support and community environment, the lower intention they have to change job, which is consistent with the previous studies.

5.3 Current situation of POS, EE and AC of community GPs

5.3.1 Overall level of POS, EE and AC of community GPs

The high score of POS and AC shows that the community GPs of Pudong New Area are generally satisfied with the support from the community health service centers. Also, the occupational environment of community GPs has received growing attention and thus GPs have gained great supports from society and family in work, life and study.

The community general practitioners in Pudong New Area in Shanghai currently enjoy better occupational environment and broader career prospect and thus they have strong willingness to engage in the community health services. Gu, Ge, Liu, and Chen (2012) studied the job satisfaction of community health workers and its influencing factors and found community GPs have high level of job satisfaction and social support is an important influencing factor of their work enthusiasm.

Besides, the EE scores are generally low, indicating that currently the community general practitioners have not yet shown obvious negative emotions towards their work. This is because the workload and pressure of general practitioners are relatively small compared with specialist doctors in general hospitals, which is consistent with the previous research results (Li, 2014; Yang & Zhang, 2015). Li et al. (2015) found the high work pressure of GPs mainly comes from GPs' lack of sufficient knowledge required for the work and poor working conditions. Meanwhile, the current low salary of community GPs lead to the GPs' low work enthusiasm.

Taken together, the long-term professional trainings and organizational support have been transformed into the driving forces that motivate the community GPs to willingly and wholeheartedly serve the local residents.

5.3.2 Group difference POS, EE and AC of GPs by demographic characteristics

The survey shows that the POS and AC of male GPs score higher. This can be attributed to the following reasons: compared with women tasked with the responsibilities of giving birth to children and taking care of family, men can spend more energy on the work and feel more support from the organization for resources and emotional care, therefore they are highly attached and committed to the organization. In their study of occupational burnout and influencing factors among family doctors in Minhang district of Shanghai, Zhu et al. (2016) reached similar conclusion. They found that male GPs have higher POS, perhaps because male GPs account for a high percentage of middle managers or employees with intermediate and senior title and thus have more access to resources.

The score of EE of GPs with master degree is lower. This is because GPs with high educational background can competently handle their work with their comprehensive knowledge, thus keeping emotionally stable in work and experiencing low emotional exhaustion. Li et al. (2015) found that the GPs' work pressure is related to education background. The lower the education background, the higher the work pressure, which is consistent with the result of this study.

The GPs with vice senior or senior professional title report higher POS score. This is principally due to the fact that once GPs are promoted, they can be better guaranteed in salary, working environment and social status thus enjoying higher POS. By studying the relationship between occupational identity and social support among GPs in Shandong province, Wang, Shi, Ma, Li, and Yin(2016) found the higher the POS level, the more

guarantees the GPs can gain for salary, working conditions and social status and the higher the professional identify.

Studies have shown the score of POS of GPs with administrative posts and senior positions is higher; the score of AC of GPs with vice senior or senior title is significantly higher than that of AC of ordinary medical staff. This is because GPs with administrative posts and intermediate and senior title have accumulated rich working experience, professional skills and resources for career development and highly value their work achievements. Therefore, they feel more satisfied with the current position and job. Xu, Qin, and Liu (2012) explored the factors influencing the motivation of grassroots medical staff in Shandong province and found GPs with administrative posts and intermediate and senior title have higher level of job satisfaction and high motivation, which is consistent with the result of this study.

The score of EE of GPs who obtained GP qualification certificate through job transfer training is significantly higher than that of EE of GPs who obtained GP qualification certificate through standardized training. This is because compared with GPs who obtained GP qualification certificate though standardized trainings, GPs changing their positions through job transfer training always feel anxious about and struggle to cope with their work, thus easily experiencing mental fatigue and emotional exhaustion.

The more they know about the Eight Incentive Policies and the more satisfied they are with the government's preferential policies, the higher the score of POS and AC scales is and the lower the score of EE scale is. This indicates that the work and organizational characteristics can have a positive association with GPs' work attitude.

The study analyzes the different effects of family support and community environment on POS, EE and AC of GPs. The results show that those GPs who perceive higher their family supports and local residents supports report higher score of POS and AC and lower score of EE. The understanding and support of family members and local residents solves GPs' concerns so that they can fully throw themselves into work, remain close ties to the organization and feel more support from the organization and thus foster high POS and AC and experience low emotional exhaustion.

5.4 Effects of POS, EE and AC on the TI of GPs

5.4.1 Indirect effects of POS on the TI of GPs

This correlation analysis shows POS is negatively correlated with TI, namely the higher POS the GPs have, the less they are willing to seek employment elsewhere. However, in the SEM analysis, POS has no direct significant relationship with TI. According to the structural equation model built in this study, POS affects the GPs' TI through three impact paths, including "POS->EE->TI", "POS->AC->TI" and "POS->EE->AC->TI". The POS can only influence TI indirectly and the overall impact effect is -0.196. Similarly Gu et al. (2017) studied the impact of POS and job satisfaction on TI and found POS indirectly affects TI through job satisfaction.

5.4.2 Mediating role of EE and AC between POS and TI

Studies show that EE is negatively correlated with POS and AC but positively related to TI. A meta-analysis of emotional exhaustion conducted by Lee and Ashforth (1996) showed EE can lead to turnover intention and reduce sense of organizational belonging. A sampling survey of medical staff in grass-roots medical institutions in five provinces including Jilin and Shandong by Song (2014) suggests when the individual and work factors are controlled, emotional exhaustion can exert direct influence on turnover intention of community health workers.

According to the SEM constructed in this study, EE and AC respectively play a full mediating role between POS and TI. Based on Figure 4-4, POS can only affect TI indirectly. By comparing the impact effects of three impact paths, POS affects TI through AC. This suggests that the higher POS the GPs have, the more they are affectively committed to their organizations and the less likely they are to have a thought of quitting. The impact path of POS->EE->TI shows that the EE can reduce GPs' POS and ultimately influence intention to leave. The impact path of POS->EE->AC->TI shows EE can consume POSs and decrease AC, and ultimately influence intention to leave. Compared with other paths, the path impact of "POS->AC->TI" is the strongest.

In summary, EE and AC respectively play full mediating role between POS and TI, among which the path of "POS->AC-TI" has stronger effect on TI of GPs.

5.5 Effects of policy of "Eight Incentive Policies for Medical Professionals in Rural Districts in Shanghai" on GPs' TI

5.5.1 Policy effects of "Eight Incentive Policies" on community GPs' TI

The issuance of the policy of "Eight Incentive Policies" is focused on improving the welfare of community GPs in non-urban areas (remote rural areas, rural areas, and outskirts areas). Theoretically, the preferential policies should achieve the results of improving the POS of GPs in non-urban areas. In the present study, the analysis of the correlation shows that, the more knowledge about "Eight Incentive Policies" the GPs are and the more satisfied about "Eight Incentive Policies" the GPs are, the higher the score of POS and AC scales is and the lower the score of EE and TI scale is ($P < 0.001$). In addition, the turnover intention of the GPs in this study is relatively low. Indeed, the number of GPs quitting in 2015 actually dropped substantially compared to that in the previous several years. Therefore, to a certain extent, this shows that "Eight Incentive Policies" can play a positive role in increasing POS and reducing the tendency of GPs' tendency to turnover.

However, the survey results show the scores of POS and AC of urban GPs are actually higher and the score of TI scale is lower. This indicates the implementation of the "Eight Incentive Policies" fails to fully eliminate the POS gap between urban GPs and non-urban ones, which partially reflects that the "Eight Incentive Policies" have not effectively narrowed the welfare gap between rural GPs and urban GPs.

5.5.2 Adjust the policy priority and strengthen its implementation in an effort to influence the GPs' turnover behaviors

According to the reasonable suggestions to the "Eight Incentive Policies" for GPs and the survey results of the current job satisfaction, more than one fifth of 158 GPs think the fairness and implementation of the preferential policies should be improved; thirty two percent (32.28%) argue that the GPs' reasonable incomes should be guaranteed; nearly half of 256 GPs are unsatisfied with the current jobs. Therefore, against the background of implementation of "Eight Incentive Policies", although the GPs' TI is relatively low, there is still dissatisfaction over the organizational support and fairness of the preferential policies. Those advice mainly come from C type community (suburban junction), and most of them are

ordinary medical staffs, with intermediate and primary profile. Therefore, the government should strength efforts to adopt more incentive measures and fully consider the welfare gaps between different areas and lay equal stress on the welfare treatment in different areas in an effort to improve the GPs' POS and further curb their turnover behaviors. In addition, the community health centers should strengthen the promotion of the incentive policies and make them fully aware that the implementation of "Eight Incentive Policies" reflects the government's increased attention to the community health work and GPs, thus strengthening their affective commitment to the community health organizations and further reducing turnover intention.

5.6 Research contributions

This study makes the following contributions: First, the study is conducted under the background of strengthening the grassroots health institutions in a transitional period of Chinese healthcare reform. It is one of the first studies targeting the general practitioners of community health service center in China. Faced with the problems that the grassroots medical institutions in remote rural areas, it is difficult to attract medical talents and retain excellent medical talents, the study analyzes the turnover intention of GPs who are urgently needed by the rural communities and explores to establish the dynamic incentives strategies. The study findings have important practical significance for the development of China's grassroots health undertakings. In addition, this study enriches the literature of turnover and healthcare management with additional research model and relatively large sample from an important unexplored context of community health service center in China.

5.7 Research limitations

The major limitations are summarized as below:

(1) The study focused on the sample of Shanghai Pudong New Area. This sample is not representative of Chinese general practitioners in the rest of China and this limits the generalizability of the findings given the diversity of economic development across China.

(2) This study focused on the analysis of organizational factors and general practitioners work attitude/behavior on turnover intention, and it did not measure the external factor such as opportunity in large scale hospitals. Future studies may look into how external factors in the labor market affect the turnover intention or turnover of general practitioners in

community health service centers.

Chapter 6: Conclusions and Suggestions

6.1 Research conclusions

(1)The overall turnover intention of GPs in Pudong New Area in Shanghai is relatively low;

(2) The individual characteristics, work characteristics and family support and community environment have association with on the GPs turnover intention;

(3) POS has indirect effect on the TI of GPs, among which EE and AC play mediating role between POS and TI; EE can influence GPs' TI directly and indirectly; AC has direct effect on GPs' TI.

(4) The relevant incentives policies stipulated in the "Eight Incentive Policies" have positive association with GPs' POS and AC, and negative association with turnover intention. But it should be specifically adjusted and improved according to the research results of this study and efforts should be made to keep the policy incentives up-to-date and well-targeted in the process of improving the GPs' working conditions in order to reduce their turnover intention.

6.2 Policy suggestions

(1) What should be done by the government?

According to the study, the more the GPs identify with the family support and community environment, the higher the score of the POS and AC scales, the lower the score of the EE scale and the lower the GPs' TI. When formulating and implementing policies, the government should fully consider the effects of family support and community environment such as family's support for GPs' work, professional pride, work time guarantee, help with GPs' difficulties, local residents' respect for and cooperation with GPs' work. The sensible policies should be formulated to improve the family support and community environment and the GPs' degree of identification with the family support and community environment in order to improve their POS and reduce the TI. What's more, the more knowledge about the preferential policies and the more satisfied with the benefits from preferential measures GPs

are, the higher the score of POS and AC scales is and the lower the score of EE and TI scale is, which reflects that strengthening policy advocacy and policy implementation and increasing the attractiveness of preferential policies to GPs, can play an positive effect in guiding GPs in career stability. Thus, from the policy level, this study makes the following suggestions for improvement:

1) The government should improve GPs performance assessment system, implement preferential policies and raise GPs' income and welfare. Qin, Zhang, Lin, Zhang and Zhang (2016), and Yu et al. (2017) believe that it is urgent to make the reform of the grassroots salary system, whose efforts should include: lay emphasis on the reasonable distribution of industry salary; establish the salary distribution system based on production factors such as knowledge, technology and management; link the performance distribution with the individual's workload and work quality. Only by doing so can the GPs performance assessment mechanism be truly established. Therefore, it is essential to improve the community GPs performance assessment system in order to improve the GPs' satisfaction with the benefits from the preferential policies, thus improving their POS and reducing turnover intention. The *Opinions on"1+8"Community Health Service Reform in Shanghai* requires to standardize the workload of the community health services with GP as the measurement unit so as to measure the annual amount of work and value per unit service in the community health centers, which fully underlines the importance of performance assessment.

2) Properly close the welfare gaps between managerial personnel and technical employees and optimize the GPs' occupational guarantee and widen their promotion channel. With the establishment and improvement of GP system, the standardized training mechanism for GP has become mature. The rapidly growing GP teams have become the backbone of medical institutions. However, compared with the administrative staff, the community medical technical employees are still underpaid and have fewer opportunities for promotion. Therefore, efforts should be made to improve the salary of community medical technical employees and widen their promotion channels, thus improving the job satisfaction and POS of excellent GPs without high positions or intermediate title or above and further reducing their turnover intention.

3) Policy making and implementation methods. Because the community health centers are the public institutions affiliated the local government, the promulgation and implementation of the government's new health policies means a great support for GPs from a more powerful organization. The specific preferential measures and implementation effect

determine how well the GPs feel the POS, which can further influence their AC and TI. The formulation of policies such as GP system, health services and performance assessment should widely solicit opinions from the GPs in different areas and local residents. The newly-formulated policies should be widely publicized through media, magazine and public activities before they are implemented so that they can be widely known by the public and the community GPs as well. The revised policies based on the GPs' advices can improve the GPs' satisfaction with the benefits from the preferential measures, thus increasing GPs' POS and AC and reducing their turnover intention.

(2) What should be done by the medical institutions?

The community health centers are GPs-dominated medical institutions and the GPs' POS and AC level depends partially on the management level of managers in community health service institutions. The managers should ensure the harmonious organizational atmosphere, strictly implement management standard and take different measures to satisfy different needs of employees in order to increase GPs' POS and reduce their turnover intention.

1) For the GPs' managers' part, the community health centers should effectively implement the government's preferential policies so that GPs can enjoy the benefits they deserve and feel the organization's concern for their interests, thus improving their POS and reducing turnover intention. Chang et al. (2016) believed there are three key influencing factors of GPs' turnover, namely length of services, job burnout and job embeddedness. The medical institutions should pay attention to the talents loss caused by job burnout. Whether the government's preferential policies for benefit of GPs can achieve expected effects depend largely on how the community health centers implement them; meanwhile the problems occurring in process of policy implementation should be timely feed backed to the superior department for comprehensive evaluation and constant adjustment according to the actual conditions. Any misunderstanding and misjudgment of original purpose of the policies will affect their practical effects and even make the policies counterproductive. For example, different medical employees in different areas benefit differently from the preferential policies. The different standards of subsidies in the policies are set according to the factors such as the importance of positions, risk, contributions and the level of expectations in a region rather than workload and work quality. Therefore the misunderstanding of the policy by the GPs can bring negative effect to work.

2) From the perspective of GPs' practicing environment, efforts should be made to improve the GPs' practicing environment and doctor-patient relationship so as to help them

avoid different kinds of risks in work. Thus, the GPs can feel great support from their organization and reduce their intention to quit. The GP service model has been maturely established in foreign countries thanks to the long-term development, but the history of GP service system in China is only ten years. Chinese people with different standards of living have different demands for health services. Currently, the medical services provided by the GPs are still not very satisfactory and thus social tolerance, understanding and support from the public are badly needed to help GPs gradually improve their service level.

3) From the perspective of GPs' working platform, the community health centers should introduce the external medical resources support system in an attempt to improve the service capabilities of GPs and the identification of local residents with the medical services provided by the community GPs. Although the service level of community health centers (clinics) has been markedly improved, the medical equipment, drugs catalogue and medical techniques can only cope with the common diseases, frequently-occurring diseases and chronic diseases. The provision of only the primary medical services has made it difficult for the community health centers to attract local residents. As a consequence, the GPs have fewer opportunities to practice their clinical skills. Therefore, efforts should be made to expand the practice platform for general practitioners, whose specific measures may include: establish medical consortium platform; regularly invite experts to provide medical services for patients and guidance for general practitioners in community health centers; establish hierarchical medical services green channel; establish remote auxiliary examination system including ECG, radiation, ultrasound and medical examination. By doing these, the GPs can feel the identification of the organizations and patients with their value, thus improving POS and AC and reducing EE and TI.

(3) What should be done by or for GPs?

1) GPs should try to improve their medical skills and service level, which means they should improve themselves not only in the clinical treatment and disease prevention but in the interpersonal communication, management coordination and humanistic care. Currently, most GPs are fully occupied by heavy outpatient services and public health services and thus it is difficult for them to spare extra time to participate in the continuing education and professional trainings. When the country speeds up efforts to cultivate sufficient number of GPs, the comprehensive ability training for GPs should be also emphasized. The GPs should realize the importance of self-ability improvement, which is also required by the social development.

2) Relevant measures should be taken to strengthen GPs' education on values of medical

practice in order to release their pressure and reduce emotional exhaustion. Apart from administration departments and health services departments, the medical institutions in China also have party organization, labor union and civilization office established for the construction of hospital culture, core values and humanities, which can produce positive energy and increase cohesion. Due to the heavy work and great responsibilities, the GPs easily suffer from emotional labor that leads to increased stress, emotional exhaustion and burnout over time. Especially, GPs changing their positions through job-transfer training always feel anxious about and struggle to cope with their work, thus easily experiencing mental fatigue and emotional exhaustion that lead to the thoughts of turnover. In order to alleviate the psychological problems, GPs should seek psychological counseling from the relevant departments of the medical institutions to relieve the increased emotional exhaustion over time. The superior medical institutions should also pay attention to the GPs' psychological changes and needs. For the job-transfer GPs, the community health centers should actively improve their communication ability in work. When community health centers make great efforts to provide sound atmosphere for GPs to adjust their emotions and release their work and psychological pressure, their emotional exhaustion and turnover intention can be reduced.

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Appendix

Appendix Ⅰ: Questionnaire

Questionnaire 1 for working conditions of GPs

Questionnaire Number:

District or county_____ Current organization in which you work_____

Respected physicians:

In order to understand the working conditions of GPs and existing problems in Shanghai community centers with the aim of further improving relevant policies, this questionnaire survey is conducted.

In strict line with the provisions stipulated in Statistics Law, you are allowed to fill out this questionnaire on condition of anonymity. There are no standard answers to all the questions in this questionnaire. The data collected will be kept strictly confidential and therefore please rest reassured to answer all questions according to your real experience and true feelings. Thank you very much for your support!

Part 1: Working conditions

The below statements are utilized to evaluate the extent to which your organization supports your work, please specify the level of agreement or disagreement that matches your actual conditions.

Item	Strongly disagree	Disagree	Partially disagree	Partially agree	Agree	Strongly agree
My organization strongly considers my goals and values.	1	2	3	4	5	6
Help is available from my organization when I have a problem.	1	2	3	4	5	6
My organization really cares about my well-being.	1	2	3	4	5	6
My organization would forgive an honest mistake on my part.	1	2	3	4	5	6

My organization is willing to help me, if I need a special favor.	1	2	3	4	5	6
If given the opportunity, my organization would take advantage of me.	1	2	3	4	5	6
My organization shows very little concern for me.	1	2	3	4	5	6
My organization cares about my opinions.	1	2	3	4	5	6

Part 2: Personal information

A:Basic information

(1) Gender: A. Male B. Female

(2) Age: A. 18-29 B.30-39 C. 40-49 D. Above 50

(3) Marital status: A. unmarried B. married C. others (e.g. divorced)

(4) Highest education: A. Technical secondary school B. Junior college C. Bachelor D. Master E. Doctor

(5) Professional title: A. Primary title B. Intermediate title C. Vice senior title D. Senior title E. Ungraded

(6)Living conditions: A. living with family B. living far apart from family C. others

(7)Working position: A. full-time GPs B. administrative management C. others_____(Please specify).

(8) Administrative post: A. Director of community center B. deputy director C. middle-level manager D. head of department E. ordinary medical staff

(9) How do you obtain the GP qualification certificate?

A. job-transfer training for rural doctors B. job-transfer training for specialist physicians C. National examination for General Practitioners D. standardized training for GPs

(10) Length of service_____(years)

(11) How many years do you have worked in this organization?_____(years)

B: Work and organizational characteristics

1. From Jan to Dec 2015, how many hours do you spend on work on average per day? ___ hrs

How many working days do you have on average per week?____days

How many times are you on night duty on average per month?____times

2. Your pre-tax annual salary in 2015____(yuan) and estimated pre-tax annual salary in 2016___(yuan)

3. Please select the social welfare you have enjoyed from the following list (select all that

apply)

A. pension B. basic medical insurance for urban employees C. employment injury insurance, D. unemployment insurance, E. maternity insurance,

F. housing fund, G.shuttle bus or transportation subsidies, H. preferential educational policies for children, I. others____(please specify); no any welfare mentioned above;

4. How many times have you received on-the-job trainings from Jan to Dec 2015?

___ times or accumulated days____

5. Do you have knowledge of the incentive measures stipulated in the "Eight health interim measures"?

A. Totally unclear B. Unclear C. Basically clear D. Clear E. Totally clear

6. Are you satisfied with the benefits from the "Eight health interim measures"?

A. Extremely unsatisfied B. Unsatisfied C. Basically satisfied D. Satisfied E. Extremely satisfied

Part 3: Family support and community environment

A. Family support

Please score the following items using the scale of 1 to 5 to express your approval degree according to your actual conditions:

(1) My family lends strong support to my work;

A. Strongly disagree B. disagree C. neither agree nor disagree D. agree E. strongly agree

(2) My family is proud of my profession;

A. Strongly disagree B. disagree C. neither agree nor disagree D. agree E. strongly agree

(3) My family guarantees that I can have sufficient time for work;

A. Strongly disagree B. disagree C. neither agree nor disagree D. agree E. strongly agree

(4) When I encounter difficulties, I can get help from my family.

A. Strongly disagree B. disagree C. neither agree nor disagree D. agree E. strongly agree

B: Community environment

1. Do you think how well the local residents respect your work?

A. Extremely disrespect B. disrespect C. neither respect or disrespect D. relatively respect E. extremely respect

2.To what extent do you think the local residents cooperate with your work?

A. Extremely uncooperative B. uncooperative C. neither cooperative nor uncooperative D. fairly cooperative E. extremely cooperative

Part 4: open-ended questions

1. Apart from the “Eight health interim measures”, do you have any other helpful suggestions?

2 Are you satisfied with your current profession as general practitioner? Do you have any advices and suggestions?

The questionnaire survey is over. Thank you very much for your support and cooperation again!

Wish you all the best and good luck!

Investigator:

Survey date:

Questionnaire 2 for working conditions of GPs

Questionnaire Number:

District or county_____ Current organization in which you work_____

Respected physicians:

In order to understand the working conditions of GPs and existing problems in Shanghai community centers with the aim of further improving relevant policies, this questionnaire survey is conducted.

In strict line with the provisions stipulated in Statistics Law, you are allowed to fill out this questionnaire on condition of anonymity. There are no standard answers to all the questions in this questionnaire. The data collected will be kept strictly confidential and therefore please rest reassured to answer all questions according to your real experience and true feelings. Thank you very much for your support!

1. Please use the scale of 1 to 6 to express how frequently you have experienced what is described in each item according to your true feeling and actual conditions.

Item	Never	Rarely	Occasionally	Several times a month	Several times per week	Nearly every day
I feel mentally and physically exhausted	1	2	3	4	5	6
I feel exhausted after I get out of work	1	2	3	4	5	6
When I get up in the morning and have to face whole day's work, which makes me feel very tired	1	2	3	4	5	6
Working all day puts great pressure on me	1	2	3	4	5	6
The job nearly drags me into a state of collapse	1	2	3	4	5	6
Since I began to do this job, I have become less interested in it	1	2	3	4	5	6

2.Please score the following items using the scale of 1 to 6 to express your approval degree according to your true feeling.

Item	Strongly disagree	Disagree	Partially disagree	Partially agree	Agree	Strongly agree
I would like to continue working in the hospital as long as I can	1	2	3	4	5	6
I always regard the problems of this hospital as those of mine	1	2	3	4	5	6
I am affectively more committed to this hospital than any others	1	2	3	4	5	6
I really feel I am a member of the hospital	1	2	3	4	5	6
I really feel an emotional tie to the hospital	1	2	3	4	5	6
The hospital means much to me	1	2	3	4	5	6

3. Please score the following items using the scale of 1 to 6 to express your approval degree according to your true feeling.

Item	Strongly agree	Partially agree	Agree	Disagree	Partially disagree	Strongly disagree
I often have the idea of leaving the organization	1	2	3	4	5	6
I want to seek employment elsewhere	1	2	3	4	5	6
I always want to leave the organization within a year	1	2	3	4	5	6

The questionnaire survey is over. Thank you very much for your support and cooperation again!

Wish you all the best and good luck!

Investigator:

Survey date:

Appendix Ⅱ: Scores of scales

Table 1 Scores of POS of GPs

Item	Code	Max	Min	Mean	SD
My organization strongly considers my goals.	POS1	6.00	1.00	4.64	1.01
Help is available from my organization when I have a problem.	POS2	6.00	1.00	4.78	0.96
My organization really cares about my well-being.	POS3	6.00	1.00	4.51	1.08
My organization would forgive an honest mistake on my part.	POS4	6.00	1.00	4.53	1.02
My organization is willing to help me, if I need a special favor.	POS5	6.00	1.00	4.71	1.00
My organization cares about my opinions.	POS8	6.00	1.00	4.17	1.16
Total	POS	6.00	1.00	4.56	0.90

Table 2 Scores of EE of GPs

Item	Code	Max	Min	Mean	SD
I feel exhausted after I get out of work.	EE2	6.00	1.00	3.34	1.14
When I get up in the morning and have to face whole day's work, I feel very tired.	EE3	6.00	1.00	3.00	1.15
Working all day puts great pressure on me.	EE4	6.00	1.00	3.01	1.12
Since I began to do this job, I have become less interested in it	EE6	6.00	1.00	2.42	1.07
Total	EE	6.00	1.00	2.94	0.98

Table 3 Scores of AC of GPs

Item	Code	Max	Min	Mean	SD
I am affectively more committed to this hospital than any others.	AC3	6.00	1.00	4.34	1.13
I really feel I am a member of the hospital.	AC4	6.00	1.00	4.84	0.86
I really feel an emotional tie to the hospital.	AC5	6.00	1.00	4.43	1.05
The hospital means much to me.	AC6	6.00	1.00	4.59	0.99
Total	AC	6.00	1.00	4.55	0.86

Table 4 Scores of TI of GPs

Item	Code	Max	Min	Mean	SD
I often have the thought of leaving the organization.	TI1	6.00	1.00	2.26	1.01
I want to seek employment elsewhere.	TI2	6.00	1.00	2.29	0.99
I always want to leave the organization within one year.	TI3	6.00	1.00	2.22	1.00
Total	TI	6.00	1.00	2.26	0.95