

**The Influence of Job Satisfaction and Affective  
Commitment on Turnover Intention among Senior  
Professionals in Public Hospitals: An Empirical Study in  
Guangdong Province, China**

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

Doctor of Management

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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

Chinese public hospitals have been plagued by insufficient investment from government and by the need to generate enough revenue to guarantee their survival and development needs, which requires hospitals to strengthen their core competences and gain competitive advantage. This depends not only on the technical level and service ability of medical staff, but mainly on their talented senior professionals who are specialists in various subjects. Their achievements determine the clinical level of a hospital and represent its technical and scientific advantage thus guaranteeing the hospital quality and attraction. However these professionals are scarce resources in high demand by the huge medical market and competing hospitals in China. In these circumstances, how to improve job satisfaction and develop affective commitment so as to retain these highly demanded senior professionals is a human resource management problem worthy of study and it is the topic of this thesis.

For this research 33 representative hospitals (Third level Class-A hospitals) in the largest cities of Guangdong province were selected and 1,500 questionnaires were distributed among senior professionals according to specific criteria. Finally, 508 responses have been considered valid and data were processed. Results show that, in this sample, (i) there is no correlation between job satisfaction and turnover intention; (ii) there is a negative correlation between affective commitment and turnover intention; (iii) there is a positive correlation between job satisfaction and affective commitment; and (iv) affective commitment is a mediator through which job satisfaction affects the turnover intention of the senior professionals surveyed. The research also found that the size of the hospital, job tenure and job position are valid predictors of turnover intention.

According to the research results, the thesis puts forward suggestions on improving the management of senior professionals in public hospitals and sheds light for future studies.

**Key words:** Senior Professionals, Job Satisfaction, Affective Commitment, Turnover Intention, Public Hospitals in China

**JEL:** M54; M12

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## Resumo

Os hospitais públicos na China têm vindo a ser afetados por um investimento governamental insuficiente. Forçados a gerar receitas próprias para garantir a sua sobrevivência e desenvolvimento, muitos hospitais têm procurado reforçar as suas competências chave como forma de obter vantagens competitivas. Para tal, o nível técnico e as capacidades do seu pessoal médico e, em particular, dos profissionais especializados em várias disciplinas são fatores fundamentais pois os seus êxitos determinam o nível clínico e científico do hospital, a sua qualidade e atratividade. Estes profissionais são porém recursos escassos e objeto de uma grande procura devido à enorme dimensão do mercado e ao elevado número de hospitais existentes na China. Nestas circunstâncias, como melhorar o seu nível de satisfação, desenvolver o seu compromisso afetivo para com a organização e aumentar a sua retenção é um assunto de grande interesse para a gestão e é este precisamente o tema desta tese.

Para este estudo selecionaram-se 33 hospitais de nível 3A nas principais cidades da província de Cantão tendo sido distribuídos 1.500 questionários aos profissionais com as características requeridas. Destes foram consideradas válidas 508 respostas que foram objeto de tratamento estatístico. Os resultados desta amostra revelam que (i) não existe correlação direta entre a satisfação no trabalho e a intenção de deixar a organização; (ii) existe uma correlação negativa entre o compromisso afetivo para com a organização e a intenção de a deixar; (iii) existe uma correlação positiva entre a satisfação no trabalho e o compromisso afetivo; e (iv) o compromisso afetivo é uma variável mediadora através da qual a satisfação no trabalho afeta a intenção de rotatividade por parte dos profissionais inquiridos. Os resultados mostram também que a dimensão do hospital e a posição ocupada pelos respondentes influenciam significativamente a intenção de rotatividade.

Com base nos resultados da investigação, a tese apresenta sugestões sobre a forma de gestão destes profissionais especializados bem como sobre investigação futura.

**Palavras chave:** Profissionais Especializados, Satisfação no Trabalho, Compromisso Organizacional, Intenção de Rotatividade, Hospitais Públicos na China

**JEL:** M54; M12

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## Chapter 1

### Introduction

#### 1.1 Research Background

Nowadays, there are public hospitals and private hospitals coexisting in China's medical market, with the public hospitals as the main body and the private hospitals and other joint venture hospitals as the supplement. At present, the number of beds and service volume of public hospitals and non-public medical organizations account for about 80 percent and 20 percent respectively (Liu et al., 2014). By the end of 2012, there were 23,000 hospitals in China, including 1,624 tertiary hospitals (of which 989 are class-A tertiary hospitals) and 9,786 private general hospitals (of which about 200 are joint venture and cooperative medical organizations) according to China's Health and Family Planning Statistical Yearbook 2013.

Because of the insufficient investment from government, Chinese public hospitals have to generate profits themselves to maintain their survival and development (Zhang & Feng, 2013). In order to solve the resulting problems of over-treatment and excessively-centralized medical resources, a new round of medical system reform is being carried out since 2009 in China, whose measures include: allow foreign capital to enter the Chinese medical market; encourage foreign investors to sponsor joint venture hospitals; allow private capital to invest in hospitals; encourage the rational flow of medical staff in public hospitals; and perfect the multi-site medical practice system with a view to easing the huge pressure on demand for medical services in China (Yuan et al., 2014).

Although it is not difficult for private hospitals to own high-end medical equipment and luxury decoration and provide people-oriented service by investing a considerable amount of money at the early stage, it is the stable and special medical technology as well as the number and technical level of senior professionals in the hospital that give the sense of safety and trust to the people. Since foreign doctors are allowed to work in

China only for one year and the development cycle of China's doctors is as long as 13 years with the requirement for the training platform in the growth period being also very high, senior professionals are in high demand by foreign-invested and private hospitals. They spare no expense to provide good working environment and higher compensation to attract senior professionals working in public hospitals.

Another initiative of China's healthcare reform is to roll out the multi-site medical practice system, which allows good doctors to offer medical services at multiple sites so that they can be shared by the whole society. The restrictions on practice site for the past 40 years have been lifted, which promotes the rational flow of the medical staff allowing people in neighboring areas to enjoy high-quality treatment provided by senior professionals from large-scale general public hospitals.

The contradiction between the growing demand for medical services and limited health service providers thwarts progress towards achieving the goals of improving the operational efficiency, service level and medical quality in China's health care system. At the same time, the hospital level management system has also objectively exacerbated the uneven distribution of medical personnel. According to the current Hospital Classification Management Methods, a third level class-A (short as 3A) hospital is China's highest level of hospitals with more than 501 beds, whose first-class medical service and management, medical quality and safety as well as technical level and efficiency make it the medical center in a region. With a high level of subjects, clinical services, scientific research abilities and teaching conditions in that region, the hospital of this sort has large demand for high-level senior professionals and is also more attractive to medical talents, thus becoming the main gathering place of health senior professionals (Luo, 2015). The perfect platform and good reputation of public hospitals are always the factors that make the senior professionals hesitate when they have the intention to leave.

As an economically developed area in China, Guangdong province was in the vanguard of China's reform and opening up. With good medical equipment, Guangdong province now has 1,186 hospitals, of which 105 are tertiary hospitals

including 78 third level class-A hospitals. By the end of 2014, there were 449 private medical organizations in Guangdong province. Guangdong province has 78 hospitals with more than 800 beds, ranking the fourth or in the top 13% among 31 provinces across China (Guangdong Health and Family Planning Commission, 2014).

Guangdong province is among the first to establish the multi-site medical practice filing system, allowing doctors to work for more than one medical organization. Meanwhile, it steps up efforts to promote the development of non-government funded hospitals. With Taiwan, Hong Kong and Macau in the neighborhood, the enormous demand for different kinds of medical services has contributed to the fast flow of medical talents among public hospitals. In 2015, Guangdong government stepped up the pace to approve licensed doctors to practice medicine at multiple sites and fully implemented the multi-site medical practice filing system. It also simplified the approval procedures and standards for non-government funded medical organizations, and encouraged qualified private medical organizations to be included into the medical insurance system and meanwhile in any case, the government's planning for healthcare cannot become an assured ground of disapproving non-government funded medical organizations, or to put it plainly, the site selection of any new medical organization (hospitals, clinics) sponsored by social capital will not be restricted by the government's medium to long-term regional health planning and layout planning for medical organizations, meaning that the social sponsors can build new medical organizations wherever they want. As a result, these policies have encouraged the emergence of new types of private hospitals.

The core competence theory based on the resource-based view (Barney, 1991) includes theories based on capacities and knowledge and argues that human resources are the main source of firm's competitiveness. In recent years the Chinese government has strictly limited the scale expansion of hospitals and thus China's public hospitals began to shift their focus on the fine management aimed at improving medical quality (Ye, Fu & Ma, 2013) and nurturing their talented human resources.

Senior professionals in public hospitals, who are the crucial and scarce competitive

strategic resources, represent the medical level and management abilities of a hospital at various levels. Relying on senior professionals to enhance the core competence for hospitals' sustainable development has become part of the strategic development planning in China's public hospitals (Mao, 2014). The role of these senior professionals in a hospital will directly affect the hospital's influence in the society and its medical market share, which is the guarantee of the survival and development of China's hospitals. Whether they can have a sufficient number of health senior professionals and maintain their loyalty and work enthusiasm are the critical factors that help hospitals stay competitive and gain competitive advantage.

According to the Several Opinions of the State Council on Promoting the Development of the Health Service Industry issued on Oct 14 2013, China's first guiding document for health industry, by the end of 2020, the total volume of China's health service industry will reach more than 1.228 trillion dollars. China has the world's largest population, but its medical workers are seriously insufficient and, what is more, they have been working overtime and under great pressure. Meanwhile, the high requirements for training platform and the long growth cycle of doctors make the health senior professionals even scarcer (Zhang, 2014).

According to China's Health and Family Planning Statistical Yearbook 2013, from 2002 to 2012, the number of patients increased by 104.5 percent, while the number of medical workers only increased by 56.3 percent, significantly lower than the growth rate of demand. While assessing the situation of human resources in the health industry, the indicator "physician density", or the number of physicians per 10,000 population is often used. China's physician density has been increasingly slowing down, with 14.7 in 2010 and 19.4 in 2012. According to the criterion of the United Nations and World Bank, China is expected to rank among the high and middle income countries in the near future and, in these countries, the average physician density is 24 (see table 1-1). A survey on the growth of human resources in the health field in recent 20 years in China shows that this field is in crisis and that the number of medical workers in medical organizations is generally inadequate. China's physician density is far lower than that

of the United States, France, Germany, British, and Russia, even lower than that of Japan, South Korea and Brazil, which makes it difficult to improve the medical service quality (Gu, 2011).

Table 1-1 Physician density in some countries (average between 2000 and 2009)

---

Country	Physician density (number per 10,000 population)
Russia	43
France	37
Germany	35
Australia	30
United States	27
Egypt	24
Britain	21
Japan	21
Canada	19
South Korea	17
Brazil	17
Turkey	15
China	14.7
South Africa	8
India	6
Middle and low income countries	10
Middle and high income countries	24
Global average	14

---

Source: World Health Organization (2010) & Ministry of Health of  
The People's Republic of China (2011)

According to China's Health and Family Planning Yearbook 2013, by the end of July 2013, China, a country with a population of 1.36 billion, had 981,000 medical organizations with a total of 4.1615 million beds. There were 1,059 general hospitals

with more than 800 beds, of which 74 in Guangdong province, accounting for 6.2 percent of the total in China. In 2012, the total outpatient visits to hospitals across China were 2,541,616,000 with 2,288,663,000 visits to public hospitals and 252,953,000 visits to private hospitals. The number of inpatients was 130 million across China while the number of outpatient visits and inpatients to hospitals in Guangdong province reached 310 million and 12 million respectively.

As per Table 1-2 below, there are 23170 hospitals in China of which 9,637 are government-funded. Hospitals in China are categorized into three levels. Tertiary hospitals represent the highest level of Chinese medical technology. Most senior hospital professionals like to work at this kind of hospital.

As per Table 1-3 below, there are 6,675,549 medical workers in China. Guangdong province has 518,414 medical employees, of which 8,295 have a senior title, accounting for only 1.6 percent of the total. However they are the scarce resources for which all hospitals compete.



Table 1-2 Number of hospitals across China: number of hospitals according to registration type, sponsor, operating mode, hospital level and institution category

Hospital Classification	2005	2008	2008	2010	2011	2012
<b>Total</b>	<b>18703</b>	<b>19712</b>	<b>20291</b>	<b>20918</b>	<b>21979</b>	<b>23170</b>
<b>Registration type</b>						
Public hospitals	15483	14309	14051	13830	13539	13384
Non-public hospitals	3220	5403	6240	7068	8440	9786
<b>Sponsor</b>						
Government-funded	9880	9777	9651	9629	9579	9637
Social capital	6604	6048	6046	5892	5926	6029
Individual capital	2219	3887	4543	5096	5721	6403
<b>Operating mode</b>						
Non-profit	15673	15650	15724	15822	16258	16767
For-profit	2971	4038	4543	5096	5721	6403
Unspecified	59	24	24			
<b>Hospital level</b>						
Third level hospital	946	1192	1233	1284	1399	1624
Second level hospital	5156	6780	6523	6472	6468	6566
First level hospital	2714	4989	5110	5271	5636	5962
<b>Institution category</b>						
General hospital	12982	13119	13364	13681	14328	15021
TCM hospital	2602	2688	2728	2778	2831	2889
Traditional Chinese and Western Medicine hospital	194	236	245	256	277	312
Minority hospital	195	191	191	198	200	208
Specialized hospital	2682	3437	3716	3956	4283	4665
Nursing home	30	41	47	49	60	75

Source: National Health and Family Planning Commission of the People's Republic of China (2013)

Table 1-3 Proportion of medical personnel at different levels

Category	Total	Medical personnel							Rural doctor/ health workers	Other technicians	Management personnel	Skilled workers
		Subtotal	Physician (assistants)	Physician	Registered nurses	Pharmacists	technicians	others				
Total	9115705	6675549	2616064	2138836	2496599	377398	363642	821846	1094419	319117	372997	653623
Professional title												
Director	1.6		3.7	4.5	0.1	0.5	0.6	0.4		0.4	3.1	
Deputy director	5.9		11.7	14.4	1.8	2.8	4.3	1.8		2.6	9.7	
Intermediate title	23.2		29.3	35.4	21.0	22.1	25.4	9.4		15.0	27.8	
Doctor/ Assistant doctor	32.5		39.9	38.7	27.4	37.9	35.3	20.0		26.9	27.6	
Technicians	28.0		10.2	2.8	43.7	30.9	27.9	36.2		33.4	20.7	
To be appointed	8.8		5.1	4.3	6.0	5.7	6.5	32.2		21.7	11.1	

Source: National Health and Family Planning Commission of the People's Republic of China (2013).

In terms of service efficiency, the daily outpatient visits and inpatients per doctor (actual number of occupied beds\*days/total number of doctors/the calendar days each month) in the general public hospitals of Guangdong province were 11.7 and 2.2 respectively, ranking in the middle among the 31 provinces surveyed across China (see Table 1-4 illustrating the results of three Eastern and two Western provinces).

Table 1-4 The Workload of Doctors in General Public Hospitals in Parts of China

	Daily outpatient visits per doctor	Daily inpatients per doctor
Beijing	10.6	1.4
Shanghai	15.2	2.2
Guangdong province	11.7	2.2
Xinjiang	6.0	3.3
Tibet	5.0	1.4
National average	7.6	2.7

Source: National Health and Family Planning Commission of the People's Republic of China, 2013

### 1.1.1 Senior professionals in China's public hospitals

Senior professionals in China's public hospitals mainly refer to the technical experts and management personnel who play a leading role in medical teams or hospital management. They typically include the director of clinical departments, director of national and provincial key disciplines and laboratories, chairmen or vice chairmen of professional associations at various levels, head of major research projects/research results at all levels as well as chief editors or deputy editors of professional textbooks. Most of them not only have doctoral or master's degree and the experience of further

studying at home and abroad as well as postdoctoral research, but also have the highest professional titles like professor, chief physician, senior technologist, and researcher.

Although they account for less than 10 percent of the total workforce (National Health and Family Planning Commission of the People's Republic of China, 2013), they always provide emergency treatment for critically ill patients, master important clinical skills, keep a close eye on the latest development trend of disciplines, have the comprehensive ability of medical treatment, teaching and scientific research and enjoy good reputation among patients and their families. Moreover, they are particularly popular among patients, enjoy high prestige among colleagues, have the ability to lead teams to complete tough tasks, and take the responsibility of supervising clinical quality and business management indicators. Therefore, they cannot be regarded as general employees in the traditional economic era, but as important elements and carriers of hospital's discipline levels and clinical skills. They represent the hospital's technical level, ensure that the hospital has the abilities to provide medical services and maintain its core competitiveness.

Unlike other ordinary medical staff, they participate in the hospital's strategy formulation and set development goals according to the actual conditions of clinical departments and management departments led by senior professionals. As the strategy makers, they deliver these strategies to medical staff by words and deeds. They undertake to promote the implementation of the strategic goals of the hospital and therefore play an essential and irreplaceable role in the organization.

According to interviews with a few respondents in the preliminary study for this research, the hospital's senior professionals, compared with other medical staff, have the following notable features: first, they play an irreplaceable role as they grasp clinical skills, core resources and critical knowledge and have social networks. Being in the key posts in the hospital system, they play a vital role in their professional field (Pu, Tang & Sun, 2013).

In second comes the complexity of their work that includes personalized treatment programs, patent technologies, successful cases of difficult and complicated surgeries,

and research results. Their work objects are critically ill patients including the treatment and diagnosis of difficult diseases and research on technological innovation. Their work has no fixed pattern and does not follow simple procedures. Also, they need to show qualities of leadership as well as responsibilities and abilities in technological innovation, extension and application of medical technologies, and imparting professional knowledge. Their achievements are often shown as the team's wisdom and are difficult to quantify and assess.

Thirdly, they need to possess learning abilities so as to receive long term training bestowing professional quality and strong ability and desire to learn. To be a senior professional, a would-be doctor must receive strict and formal training and continuously accumulate experience for a long time.

In fourth place there is the pursuit of self-actualization, which often is their main objective. Although their income is much higher than that of ordinary medical staff, they work not only for a compensation but hope to give full play to their professional expertise and achieve their career goals. As Fang (2012) has found, to work in a free and relaxed hospital environment is an important element for retention.

Finally, these high level medical professionals are scarce resources and are most needed by hospitals at various levels. When they feel they cannot bring their talent into full play, they are more easily to quit than ordinary medical staff. They have been hunted and scrambled by all hospitals and it is not only difficult to grab them but also costly. As they are in high demand in the medical human resources market, hospitals that lose them will suffer the loss of patients and profit reduction and face difficulties in the development of specialized departments. As all hospitals are competing for these top-notch talents with highly attractive compensation and working conditions, they are able to choose and pay more attention to the work platform and to the hospital's management system while possessing a strong bargaining power. Therefore, not only hunting, but especially maintaining these talents will significantly improve the hospital's labor costs. Figure 1-1 below summarizes the characteristics of this special labor force and highlights their bargaining power.

Figure 1-1 Characteristics of hospital's senior professionals



Source: the author.

One of the notable features of senior professionals in China's hospitals is that they must receive a long period of training and education. According to the promotion system for clinicians in China's hospitals, it will take a would-be doctor 13 years to get a medical doctor degree and complete the resident training. Then, according to the Criteria for Assessment of Intermediate and Senior Professional Titles for Clinical Medicine issued by the Ministry of Health, there are up to four levels of titles, the most in the world (two levels in the United States and Taiwan, three levels in Britain and Hong Kong), for a potential health talent to transit from the primary title (resident physician), intermediate title (attending physician), vice senior title (associate chief physician) and senior title (chief physician). This information is summarized in Table 1-5.

Table 1-5 Levels of Professional Title and Promotion Years  
in China and Foreign Countries

	Mainland China	Britain/Hong Kong	United States/Taiwan
Professional title level	4	3	2
Nr. of years for promotion	15	9	5

Source: the author.

As it can be seen from the table above, in Mainland China it will take a medical graduate at least 15 years to obtain the senior title (chief physician), which is one of the basic conditions to be considered a hospital senior professional. Moreover, China has another set of titles in its teaching and scientific research system (teaching assistant, lecturer, associate professor, professor), which is stricter than the clinical title system. In order to get promoted, China's doctors must perform well enough to meet the extremely strict assessment standards at each stage. The assessment contents include: professional theory, clinical skills, practical experience, the ability to master the latest developments in their professional field, the ability to lead the development of their respective subjects, the ability to teach graduate students, advanced students and junior doctors, the condition of developing new therapies and technologies. In addition no medical accident can be permitted, and other competencies are required such as the ability in foreign languages, computer skills, teaching ability, participation in national and provincial research projects, and the number of published papers in SCI or core journals. Medical employees who meet the above conditions can be regarded as the senior professionals in this study.

### 1.1.2 The Status quo of the Turnover of the Senior Professionals in China's public hospitals

The turnover behavior of senior professionals in public hospitals in China is

constrained by the personnel management system prevailing in China's hospitals and is now being affected by market forces. Before 2009, unlike in Europe and the US, China's hospitals adopted the traditional personnel management system in which the relationship between the medical staff and the hospital is fixed and the medical staff was not allowed working for any other medical organizations. They were given the budgeted posts instead of signing employment contracts with the hospital, which was something like the personnel management in government.

The president is appointed and the scale and level of the hospital, number of beds, manning quotas, and personnel structure are determined by the health administrative department. The promotion, salary, job transfer and welfare are put under an unified management. Therefore, the limitations of the management system, imperfect distribution and lack of scientific performance assessment have greatly limited the talent flow (Xu, 2011). Bounded by so many additional conditions, senior professionals can only work for one hospital instead of bringing their talents into full play in many medical organizations, resulting in the shortage and waste of talent resources. However, things have changed since 2009 with new medical policies allowing certified doctors to practice in multiple sites.

Because of the rigid employment system, strict promotion system, poor working environment and low pay, China's public hospitals are put in a passive position in the tense talent competition. It is reported that since 1980s, there have been famous medical experts from affiliated hospitals of famous medical colleges in Beijing, Shanghai and Guangzhou working as part-time doctors in other medical organizations at weekends. Therefore, competing for senior talents has become increasingly fierce.

The free flow mechanism for senior professionals in China's public hospitals is taking shape. In the meanwhile, the restriction on multiple-site practice of certified practitioners has been lifted. The Opinions of the CPC Central Committee and the State Council on Deepening the Health Care System Reform issued in April 2009 proposed to steadily promote the rational flow of health care professionals, facilitate diversified ways of talent exchange among different health care institutions, and explore the



feasibility of multiple-site practice of certified practitioners (Shi et al., 2012). Currently, medical senior professionals can legally offer medical services in other medical organizations instead of only working for one hospital in the past. After the Notice on Developing and Standardizing Multi-site Medical Practice of Certified Physicians was issued by the National Health and Family Planning Commission in 2014, from Jan 2010, the pilot projects of multi-site medical practice have been going on for five years in Guangdong province. In 2015, the Guangdong government encouraged to explore regional registration and has fully implemented the multi-site medical practice filing system (Sina Guangdong News, 2015). This system means that excellent registered doctors can offer medical services in multiple sites except in the public hospitals where they work. Thus, the excellent health professionals can be shared by the whole society and patients in the neighboring areas will benefit from the medical skills of senior professionals from large-scale public hospitals.

However, according to the statistical data of Guangdong Health and Family Planning Commission, only 3800 out of 160,000 strong certified physicians in Guangdong province have applied for the multi-site medicine practice during the four years the pilot program has been in place (Ma, 2014). Therefore, it is still rare that certified doctors practice in multiple sites. In 2015, there were also independent medical teams emerging, but given the restrictions on doctors under the current system and the great working pressure, a doctor who practices medicine in different medical organizations is not yet well guided and protected in terms of job responsibilities, time and energy allocation as well as legal liability.

Besides, the growing number of opportunities in the medical market will increase the turnover rate of senior professionals in China's public hospitals. With the economic development in China, the scale of local hospitals is expanding and the imbalance of demand and supply for medical services becomes serious. Meanwhile, the number of joint ventures and private hospitals is rapidly increasing. Tempted by the institutional advantage of other hospitals and higher salary and benefits, more and more senior professionals in public hospitals are taking a part-time job or consider to leave the

hospitals they currently work for.

At the same time, China has softened the management system over for-profit and non-profit hospitals. In this case, public hospitals have become legal entities with rights to recruit, allocate and manage employees and with the ability to operate autonomously and establish internal incentive mechanisms. The human resources management of China's hospitals has been transformed from a national and unified employment system to a case by case unit employment system with hospitals having independent rights to recruit clinical talents and according to their actual clinical needs without following administrative instructions from the provincial and municipal Department of Health entrust the personnel agency to keep the personnel files (Qi, 2015). Hospitals can set positions according to human resources planning and recruit various types of health talents.

According to the research conducted by Chinese scholars on the turnover of senior professionals in public hospitals in recent years, it can be seen that:

1. The number of dropouts is rising. In recent years, dropouts in public hospitals show an upward trend, and there are even medical teams resigning collectively in some hospitals (Zeng & Wang, 2015). For example the number of dropouts in the First Affiliated Hospital of Fujian Medical University rose from 22-25 people between 2008 and 2010 to 44 in 2010 (Wang, 2012); the dropouts in Zhejiang Chinese Medicine Hospital rose from 14-23 between 2008 and 2010 to 61 in 2010; the dropouts in the Third People's Hospital of Nanhai district of Foshan rose from 9 in 2008 to 18 in 2010; the dropouts in Peking Union Medical College Hospital also reached more than 40 in 2012 (Zhou, 2012; Tang et al., 2010). From 2012 to 2013, there were 84 health professionals quitting their jobs from the Third Affiliated Hospital of Guangzhou Medical University where the author currently works.

2. The turnover rate of senior professionals in public hospitals also shows an upward trend. According to the research data of the First Affiliated Hospital of Nanjing Medical University in recent 10 years, the turnover rate of senior professionals in public hospitals is on the increase. The dropouts in 2013 and 2014 have doubled respectively

compared with 2012 and 2013 (Song, et al., 2015) and there were 53 health professionals with doctor's degree quitting their jobs, accounting for 22.7 percent of the total dropouts. In 2014, a research report published by the Liaoning Medical Association on the current situation of occupational stress, occupational risk, job satisfaction and job burnout of physicians in that province showed that 41.4 percent of physicians had turnover intention and more than half of the physicians lacked a sense of accomplishment (Wang, 2015).

The loss of core talents will reduce the influence of public hospitals, increase the costs of reallocating human resources and negatively affect the hospital's future development. The factors that affect the turnover of senior professionals include organizational factors, work factors, psychological factors, personal characteristics and social factors (Lin et al., 2014). Studies suggest (e.g. Song, 2014) that after quitting their jobs, health senior professionals still work in their original professional field in new hospitals, showing that they not only pay attention to the salary and welfare, but also want a better platform to achieve their career development. The turnover intention is often caused not by a single factor but by a combination of factors, like the desire of participating in hospital's management, hospital's reputation, specialty prospects, team climate, scientific research platform and patient needs. Therefore, how to establish a mechanism that can help to introduce and retain health talents and promote their development is an important research subject for the human resource management in China's hospitals.

The high turnover rate can produce many negative effects like the continuous loss of talents, unstable medical technological level, reputation damage, decline of the core competitiveness of the hospital and even loss of patients. Therefore, how to improve the job satisfaction and organizational commitment of senior professionals, reduce the factors that affect the turnover intention and reduce the turnover rate has become the foremost problem worthy to be discussed and solved as soon as possible by the management level of China's hospitals and this is the core content of this thesis.

### **1.1.3 Research Purpose**

As part of the health care reform, China will step up efforts to form a multi-sponsored medical configuration, allow multi-site medical practice, encourage private capital to sponsor non-profit hospitals, allow overseas capital to sponsor for-profit hospitals, create a sector-wide fair medical environment, provide quality medical services to satisfy the people's multi-layer and diversified demands and promote the healthy competition in the medical market. The legalization of part-time work allows the health senior professionals to offer medical services in multiple sites.

As the number of China's hospitals and beds increase and private Chinese and overseas capitals are encouraged to invest in hospitals, the reemployment opportunities for health senior professionals mastering core medical technologies in public hospitals have been greatly expanded. For health talents, they will have more opportunities to select the best platform that can favor their development; for the country, the rational flow of talents can make the scarce resources evenly distributed and address the shortage of senior health professionals, thus helping to achieve a wide coverage of quality medical services.

For public hospitals, the free flow of senior professionals will bring about negative effects. Their resignations will reduce the medical service efficiency of the hospital and increase its labor costs including turnover costs, recruitment costs, selection costs, training costs, employment costs and production loss costs (Timothy et al., 2000). However employees will not leave their hospitals if they are in tune with its culture. On the contrary, their dependence and trust to hospitals will be deepened and thus a strong cohesion and solidarity will emerge, which could reduce the cost of turnover effectively (Guo, 2015). According to Chen, Chu and Wang (2006), the costs of employment, training and production loss alone may exceed 5 percent of the annual budget of an organization. Meanwhile, when turnover is high the cohesion of the organization is weakened (Mueller& Price, 1989). Before job vacancies are filled by new talents, the remaining medical staff have to take on an increased workload and suffer great mental stress, which may trigger new turnover intention (Abelson, 1986) and further affect the

survival and development of the hospital (Sofaer & Myrtle, 1991).

Given the great difference between China's history, religious culture and humanistic education and Western culture, whether the research model and conclusion regarding the influencing factors of turnover intention based on Western human resources theory and organizational behavior can be applied to China is still to be tested. Research on turnover intention and behavior based on Chinese culture is still not mature, and the research on turnover behavior of senior professional talents in public hospitals is still rare in the literature. According to the research on the turnover intention of China's hospitals in recent three years, the research objects often focus on nursing staff or general medical staff, and most of them are about the effect of job satisfaction on the turnover intention of the medical staff (Sun et al., 2014). Therefore, it is of great theoretical and applicable significance to establish turnover model of senior professionals in public hospitals through making an analysis of two important factors (namely job satisfaction and commitment) on the turnover intention of senior professionals in public hospitals based on the large-scale public hospitals in Guangdong province. Guangdong province was selected for the context of this thesis, as it is one of the most developed provinces in China and an early adopter of reforms. Whatever is experimented in Guangdong, if successful, other provinces will follow suit.

According to the above mentioned challenges faced by the senior professional's management, this study has the following purposes:

1. Understand the status quo and statistical data of the job satisfaction, commitment and turnover intention of senior professionals in large-scale hospitals in Guangdong province.

2. Explore the relationships between job satisfaction, commitment and turnover intention of senior professional talents in public hospitals. The research on the turnover intention of medical staff in China is still at an infant stage and currently most of the Chinese literature just focuses on the review or qualitative analysis of the topic lacking theoretical discussion and empirical study. Especially, the study on the correlations between job satisfaction, commitment and turnover intention of senior professional

talents in public hospitals have rarely received attention. Therefore, the theoretical and empirical study on the related problems of turnover intention is conducted in this thesis to identify the relationships between job satisfaction, commitment and turnover intention of senior professionals in public hospitals.

3. Identify the key factors of job satisfaction that affect the turnover intention of senior professionals. China has a population of 1.3 billion people, but its health care system is still backward. On the one hand, the long-term insufficient investment from the government causes medical resources to be unevenly distributed across China and most medical resources concentrate in the large-scale hospitals in large cities; on the other hand, there is no perfect training system for general practitioners and resident physicians, resulting in the serious shortage of high-level health talents. Health senior professionals are urgently needed by all hospitals, so they will have more opportunities to make a new choice. Then which factors of job satisfaction will affect turnover intention? The answers to these questions may help to create a good working environment for health senior professionals.

4. Provide ground for management strategies that can stabilize health senior professionals. China's new medical reform policies promote the emergence of various types of foreign-funded and private hospitals and the opening of medical human resources market, which increases the possibility of the flow of health senior professionals. In order to survive and further develop, public hospitals have to improve the job satisfaction and commitment of their top talents and work out strategies to cultivate and stabilize high-level medical professionals.

Through analyzing such key factors like job satisfaction that can affect the turnover intention of senior professionals in China's public hospitals, the empirical study here conducted aims at summarizing the laws of the high-level medical labor market and at providing a reference for the formulation of talent flow policies. Meanwhile, it aims at guiding public hospitals in creating a good working environment through improving the job satisfaction and commitment of their senior staff.

## 1.2 Research Questions

The empirical study of this thesis focuses on discussing the factors that affect the turnover intention of senior medical professionals in public hospitals, especially the effect of job satisfaction and commitment on turnover intention. The research object is senior professionals in third level class A public general hospitals in Guangdong province.

The research purpose includes the study of: 1. the effect of job satisfaction on turnover intention of health senior professionals; 2. the effect of commitment on turnover intention of health senior professionals; 3. the effect of job satisfaction and commitment on turnover intention of senior professionals in public hospitals.

In addition, the research has several purposes: first, to understand the status quo and statistical data of the satisfaction, commitment and turnover intention of senior professionals in large-scale hospitals in Guangdong province; second, to understand the effect of demographic factors on job satisfaction, commitment and turnover intention of senior medical professionals in public hospitals; third, to discuss the relationships between job satisfaction and commitment and turnover intention as well as their affecting factors; to summarize the factors that can improve the job satisfaction and commitment of the subjects studied; put forward suggestions that can help to improve work efficiency and provide reference for hospital's human resources management.

Based on the role of job satisfaction and commitment in affecting turnover intention, the thesis focuses on discussing the turnover intention of senior professionals in public hospitals in Guangdong province and puts forward some preventive measures. The specific research contents presents a model of the effect of job satisfaction and commitment on the turnover intention of health senior professionals and aims at answering the following questions:

1. Among job satisfaction, and commitment, which plays (or how do they play together) a key role in influencing the turnover intention of senior professionals?
2. What measures can improve the job satisfaction and commitment of health senior professionals?

### 1.3 Thesis Structure

The thesis has the following structure:

Chapter 1: Introduction. This chapter mainly introduces the hospital system in China, the research background and the current situation of the turnover intention among health senior professionals in China's hospitals.

Chapter 2: Literature Review and Research Hypotheses: First, the chapter introduces the turnover situation in China's hospitals and related research; second, it reviews the theories of job satisfaction, commitment and turnover intention and analyzes the job satisfaction and its influencing factors, commitment, and the basic connotation of influencing factors of turnover intention and its research progress; third, it discusses the relationships between job satisfaction, commitment and turnover intention; finally, it puts forward the theoretical framework and research hypotheses of this study.

Chapter 3: Defines the research method and basic concepts, introduces the selection and design of variable scales, explains the process of data acquisition, and tests the reliability of empirical data.

Chapter 4: Presents the results and analysis of the Relationships between Job Satisfaction, Commitment and Turnover Intention using a Structural Equation Model. First, the correlation between job satisfaction, commitment and turnover intention of health senior professionals is analyzed; second, a model for observed and latent variables is created, then AMOS model fitting results is carried out, as well as the analysis of the model modification and model evaluation (causal path); third, a structural equation model is used to verify the structural relationships between the latent variables of the model and further test the related hypotheses.

Chapter 5: Discussion and Conclusion. The influence of latent variables such as job satisfaction and commitment in the model is analyzed and the research results are discussed. The Chapter puts forward suggestions for managerial practice and provides guidance for the management of core healthcare talents. Through empirical analysis,



the levels of job satisfaction, commitment and turnover intention of senior professional talents in hospital are compared and the influence of demographic factors and hospital organizational factors on job satisfaction, commitment and turnover intention is discussed. Based on the hypotheses in the afore said literature, the research results are explained and discussed while the limitations of this study are evidenced as well as future research prospects in this field.

#### **1.4 Chapter Summary**

This Chapter has described the importance of senior medical professionals in China's public hospitals and their turnover intention, and has put forward the research problems, research subjects, purpose and thesis structure.

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## Chapter 2

### Literature Review

#### 2.1 Turnover of Medical Staff in China's Public Hospitals

##### 2.1.1 Current situation

As the scale of China's hospitals is expanding, different types of hospitals appear, and the personnel management system reform in public hospitals makes a continued progress, the turnover rate of senior medical staff in public hospitals is gradually rising. As evidenced in the previous chapter, the proportion of medical staff with turnover intention in Chinese public hospitals is increasing year by year.

The Chinese Medical Doctors Association is a national, industry-specific and non-profit organization that is organized under the Medical Practitioners Act on behalf of practicing physicians, practicing assistant physicians and unit members. The association is committed to protecting the legitimate rights and interests of physicians, providing all-round training for physicians in order to ensure the healthy development of physician teams.

The association made three surveys on the practice status of physicians in 2009, 2011 and 2014 respectively. The White Paper of Practice Status of Chinese Physicians (Chinese Medical Doctors Association, 2015) based on these survey results shows that 44.82% of physicians wanted to give up the profession in 2009 and 48.51% of physicians were not satisfied with the current working environment in 2011. According to Mu (2011), the degree of job burnout and turnover intention have been suffering a significant increase. From 2009 to 2014, the number of physicians who did not want their children to apply for medical universities rose from 62.49% to 64.48%, indicating that physicians' dissatisfaction with the practice environment had affected their evaluation of professional achievement. A questionnaire survey on turnover intention targeting 933 medical employees from 29 public hospitals using stratified random sampling method showed that 49.0% of them had turnover intention (Li et al., 2010).

Meanwhile, about one third of grass-root medical workers in China say they want to or have a great desire to give up their current work (Song, 2014).

In reality the turnover rate in China's public hospitals is effectively rising year by year. In 2010, the turnover rate in Peking Union Medical College Hospital was 1% (Tang et al, 2010), with about 45 resignations per year. By 2013, the turnover rate of the medical staff in hospitals at the same level in the same city had risen to 5% (Feng, Li & Hong, 2013). Most of them still chose to work in other hospitals, partly showing that the real reason for the turnover is because they are not satisfied with the current situation of their hospital. In a high-level public hospital in Shandong province with nearly 3,000 beds and 5,540 employees, among which there are 3,671 professional personnel and 382 hold senior title, the turnover rate of those with master degree or above increased progressively, from 3% in 2010 to 4.5% in 2014 (Zhai, 2015). While the turnover intention of general medical staff and nursing staff has been extensively studied, the research on the turnover rate of senior clinical doctors has been rarely made (Li, 2010).

According to the White Paper of the Practice Status of Chinese Physicians 2015, the doctors with higher title are more easily dissatisfied with the work conditions than those with lower title. The medical employees with senior title, or senior professionals, have the highest dissatisfaction with their job, reaching 55.47% (China Xinhua News Agency, 2015). On Oct 10, 2014, a research report showed that 41.4 percent of physicians had turnover intention and more than half of the physicians with senior title lacked a sense of accomplishment (Wang & Gao, 2014).

In addition, a survey by Peking Union Medical College Hospital (Tang et al, 2010) showed that the number of turnover staff working less than six years accounted for 60.7% of the total number of medical staff who had quitted their jobs. Most of the employees quitting their jobs were between 30 and 40 years old, accounting for 45.5% of the total. The turnover intention of clinicians aged under 30 and above 40 was 16.9% and 15.4% respectively. Clinicians in this age group are in a turbulent period of career development, and have not yet reached a stable stage. In this period, they not only need to report to

their superiors but also guide junior doctors, so the workload and work responsibilities are very heavy. In this sense, they are easily dissatisfied with their jobs and show intention to quit.

Clinical doctors aged over 40 have high professional skills and carry significant authority among medical staff. Meanwhile, with high income, they are at the stable stage of career development and can easily gain a sense of fulfillment and satisfaction. However, they also have more opportunities for job-hopping in search of a higher salary and welfare. The above-mentioned research showed that the reason for the turnover of employees with vice senior titles is mainly due to external career opportunities (62.5%), while the reason for the turnover of employees with senior titles is totally due to external career opportunities (100%). The higher professional title they have, the more popular they are in the human resources market. The doctors, especially those with senior titles in public hospitals, have more choices of reemployment through which they can find a more satisfying platform for career development. For example, after leaving their former hospital, doctors with senior titles often work as subject leader in a new hospital.

A 3-year data research conducted by (Zhou & Li, 2015) on the destination of job-hoppers shows that 22.02% and 20.78% of medical employees who have quitted their jobs move to higher level hospitals or to hospitals in other cities respectively.

### **2.1.2 Contributors of the Turnover of Medical Staff in China's Public Hospitals**

The quitting of health senior professionals shows that their patience and trust in the current system and management are wearing thin. In the recent three years, senior professionals are accounting for an increasing proportion of the turnover and there is strong evidence that job satisfaction, career value recognition, life satisfaction and work place violence can contribute to their turnover intention (Lin et al, 2014).

According to research conducted in recent years the reasons and causative factors for the turnover of medical employees in China's public hospitals are as follows:

First, work autonomy and workload: Both these two factors were found to affect the stability of doctors. With their career development, doctors have gradually shifted

their focus to the stage of self-actualization (Huang et al, 2014). The contributors to turnover intention are also different at different career stages. For example, in the entry-level period, they hope to win appraisal from leaders and get a fair pay. In the development period, they require a certain level of autonomy and hope for more training opportunities. In the mature period, the demand for better career prospects and a high level of autonomy are the strongest contributors to the turnover of senior professionals (Lin et al, 2014).

Second, work conditions: Currently, China is experiencing a complex set of phenomena such as social transformation, interest structure adjustment and economic system reform, which make social contradictions increasingly prominent. Because of the insufficient investment in health care, doctors often receive a substantial number of complaints from the public. They are chronically overworked but receive low pay. Yet, for all that, they do not receive the due respect from the society (Xu et al, 2014). The tense relationship between doctors and patients, plus more and more medical disputes, cause the frequent occurrence of violent attacks and body injuries.

A paper entitled “Doctor, the most dangerous occupation in China” published in *The Lancet* in August 2010, the world’s leading medical journal, argues that personal safety is the top concern of China’s doctors because they often become the victims of violent accidents caused by medical disputes. In a 2012 research, Wang asserted that personal safety and social respect are the top concerns of China’s doctors with 65% of them giving priority to medical safety, in contrast with 53% of doctors willing to do their utmost to cure diseases for patients. This shows the worsening patient-doctor relationship that threatens the personal safety of doctors. Meanwhile recent research (Pan et al, 2015) showed that this negative feeling also directly affects their decisions in making career planning for their children with 78% of the surveyed not wanting their children to practice medicine.

In addition, the fourth survey on the practice status of China’s physicians conducted by the Chinese Medical Doctor Association in 2011 showed that several aspects of work conditions need to be improved as 30.51% of doctors enquired hope to

establish and strengthen laws and regulations that effectively protect the legitimate rights and interests of doctors; 27.92% hope to improve the welfare of doctors; 21.55% hope to improve work conditions and protect the rights and interests of doctors (Mu, 2011). A questionnaire survey on the turnover intention among 415 medical employees in the Emergency Department of 18 hospitals in Guangdong province shows that 22.79% of them have turnover intention. This shows that geographical location, high pressure and psychological symptoms are among common contributors to turnover intention (Wang et al., 2011). Clinicians who have suffered workplace violence are two times more likely to foster turnover intention than those who have not. The higher the violence level is, the stronger the turnover intention is (Ding et al., 2014).

Third, family factor: According to Adam et al (2009), the work-family conflict is regarded as a causative factor of low job satisfaction and high turnover rate, which has been verified in the survey among the clinicians conducted in 2013 in Liaoning province (Gao et al., 2013). Low work enthusiasm, family support and unpromising career prospects largely contribute to turnover intention (Li et al. 2010a). Researchers (Feng et al., 2013) found that the income, whether the family relationship is harmonious and whether the proposals are taken seriously have significant effect on job satisfaction and turnover intention. It was also found that the life satisfaction of clinicians is negatively correlated with their turnover intention as a low life satisfaction easily leads to slackness in work and the increase of turnover intention (Lin et al., 2014).

Fourth, work value recognition: All doctors hope for the appraisal of their leaders. Doctors whose work value is not recognized and proposals are not accepted are more likely to have turnover intention. In this sense, the doctors in public hospitals often quit their jobs to seek work value recognition and in the hope to eliminate job burnout (Jia et al., 2014). Low work value recognition has many negative effects including low personal accomplishment, indifference to patients, job burnout and turnover intention. According to Zhou & Li (2015), the loss of health talents in public hospitals can be attributed primarily to unreasonable talent selection, weak appointment mechanisms, insufficient promotion channels and lack of opportunities to give full play to their

talents.

## **2.2 Job Satisfaction, Commitment and Turnover Intention**

### **2.2.1 Job Satisfaction and Affecting Factors**

#### *Definitions of job satisfaction*

Hoppock (1935) is widely recognized as the world's first person to propose the concept of job satisfaction. Inspired by the famous Hawthorne Studies (1924-1932), in his book entitled *Job Satisfaction*, he defines job satisfaction as any combination of psychological and environmental circumstances that cause a person truthfully to say I am satisfied with my job. Since the birth of the concept, employers tried to improve productivity by paying attention to and satisfying workers' social needs. People gradually regarded workers as the "social man" whose feeling and attitudes need to be paid attention to, instead of the "economic man" who purely pursues a salary. Henceforth, people's behaviors have become the core content of management. Managers began to pay increasing attention to the workers' social recognition and psychological needs in the belief that workers' social and psychological factors are the main factors that can improve their satisfaction and organizational productivity. High job satisfaction means that workers hold positive attitude towards their work (Stephen, 2011). Therefore, job satisfaction has been regarded as an important subject by scholars in the field of human resources and organizational behavior within enterprise management and many theories related to job satisfaction have been developed.

The concept and connotation of job satisfaction have experienced an evolutionary process from conception to maturity. Vroom (1964) equates job satisfaction with work attitude and thus he defines job satisfaction as a person's positive orientation on his/her current role or the affective orientations on the part of individuals toward work roles which they are presently occupying. Schultz (1982) defines job satisfaction as "the psychological disposition of people toward their work -- and this involves a collection of numerous attitudes or feelings". In turn Locke (1996) describes the concept as "a pleasurable or positive affective state resulting from the appraisal of one's job or job



experiences". Robbins (1997) defines it as an individual's general attitude toward his/her work. According to Card et al. (2010), job satisfaction is a response of an individual to the reward discrepancy between his/her and others. China's researchers argue that job satisfaction, different from the life and career development satisfaction (Shi et al., 2012), is a person's attitude towards his/her work and work experience. Once an employee enters an organization and begins to work, he/she will somewhat experience satisfaction and dissatisfaction (Cui et al., 2012).

With the in-depth research on job satisfaction, the concept is defined in many different ways based on different research objects and according to the theoretical framework on which it is based. The concept is defined from different perspectives such as overall satisfaction with the work itself (Vroom, 1964), expectation discrepancy satisfaction (Lawler & Porter, 1967) and frame of reference satisfaction (Smith, 1969). The definition of overall satisfaction is a general explanation of job satisfaction, according to which job satisfaction is a single concept, representing the overall satisfaction as a result of comprehensively considering satisfaction and dissatisfaction with different aspects of work. It mainly refers to an attitude or view towards the work itself and related environment, not involving the formative causes and process of job satisfaction.

Expectation discrepancy, also known as need deficiency, regards the satisfaction degree of employees as their response to the discrepancy between the actual gain and expected gain. The expectation discrepancy is inversely proportional to the satisfaction degree. The job satisfaction based on frame of reference considers job satisfaction as a cognitive process of comparing the specific aspects of a job with an individual's frame of reference. Scholars in favor of this definition argue that employees' subjective response to and interpretation of objective characteristics of organization and work are the most important factors, which are affected by the individual frame of reference.

The definition of overall job satisfaction is now widely accepted and used in the academic community (Bussing et al., 1999), which suggests that job satisfaction is how contented an individual is with his or her job. However, no matter how it is defined, job

satisfaction is generally thought of as a psychological response to one's job or a subjective response to the work conditions. Job satisfaction is an instant, affective response to the micro context like the rewards and work-related contents, which is very sensitive and subject to dynamic change.

The formation and functions of job satisfaction depend largely on the interaction between the individual and the environment. Herzberg (1959) expounded a two-factor theory of job satisfaction, which states that there are two kinds of satisfaction, namely intrinsic job satisfaction (motivator factors) and extrinsic job satisfaction (hygiene factors). The intrinsic job satisfaction is an individual's feeling about work content-related facets, while the extrinsic job satisfaction refers to the individual's feeling about work context-related factors. After Friedlander (1963), most of the relevant literature (Reilly & Chatman, 1986; Zeitz, 1990; Cranny, Smith & Stone, 1992; Thompson & McNamara, 1997) agrees that job satisfaction should be evaluated internally and externally: the internal dimension is related to intrinsic rewards like the work itself and opportunities while the external dimension is related to the relationship, work time and environment. According to Vroom (1964), Lawler & Porter (1967) and Smith et al. (1969), job satisfaction can significantly predict the reasons and probability of turnover intention, absenteeism and productivity as well as employees' physiology and psychology.

#### *The influencing factors of job satisfaction*

The dimensions of job satisfaction refer to the main factors that measure the concept, which vary according to different measurement methods (Li, 2010). In his seminal work Hoppock (1935) argues that job satisfaction is influenced by material attributes such as physical fatigue, monotonous work, working conditions and leadership style. Locke (1969) considers that job satisfaction is affected by two factors: (1) event and (2) agents. These include the work itself, remuneration, promotion opportunities, appreciation, working conditions, benefits, managers, coworkers and members from outside the organization. Job satisfaction is the result of the interaction

between “events” and “agents”. Grusky (1966) holds that there are two kinds of factors affecting job satisfaction: one is personal factors including age, education, gender, intelligence, and personality; and the other is the job characteristics including organization and management, salary, work safety, degree of monotony of work, supervisory practices and communication.

According to Arnold & Feldman (1982), job satisfaction is affected by the work itself, relationship with the boss, economic compensation, promotion opportunities, work environment and work team. From the perspective of social environment and employees’ psychological motivation, Friedlander (2006) thinks that the multiple dimensions of job satisfaction include social and technological environment, self-actualization and desire to be acknowledged.

An empirical research by Zhang & Li (2001) indicates that the influencing factors of job satisfaction include promotion opportunities, rewards, communication management, nature of work, welfare, sense of identity, supervisors and colleagues. A survey conducted by Gao et al. (2013) randomly polled 373 doctors in Liaoning province, and found that factors influencing the respondents’ job satisfaction include superior support, pay/return ratio, technical autonomy, turnover intention, decision-making autonomy and work-family conflict, among which the superior support and technical autonomy are positively correlated with job satisfaction. Meanwhile, the survey also verified that the work-family conflict is among the contributors to low job satisfaction.

A survey conducted among 604 clinical doctors in Fujian province by Lin et al. (2014) concluded that violence in the workplace, work itself (including working environment, working conditions, working mode, working pressure, challenges, and interpersonal relationship in work) and life satisfaction are the main factors influencing the job satisfaction of the clinicians questioned.

The Minnesota Satisfaction Questionnaire (MSQ) and Job Description Index were designed by Western scholars Weiss, Dawis and England (1967) from the University of Minnesota to measure an employee’s satisfaction with his or her job and have been

extensively used abroad but also in China (Ma & Trigo, 2012). Three forms are available: two long forms (21 sub-scales) and a short form (3 sub-scales). The short MSQ form has three sub-scales including intrinsic satisfaction, extrinsic satisfaction and general satisfaction while the long MSQ form consists of 20 five-item scales that are used to measure the job satisfaction and general satisfaction of employees in 20 facets of a job. MSQ can evaluate overall job satisfaction and various facets of a job.

The Job Description Index (JDI) was designed by psychologists Smith et al. (1969), divides job satisfaction into 5 dimensions, namely work itself, promotion opportunities, salary, managers and working partners. It uses the same descriptive terms for all facets of a job, and is thus suitable for employees with different education backgrounds.

Based on China's culture background Farh et al. (2004) from Hong Kong correlated job satisfaction with work contents, contending that the unique behaviors in China's organizations such as self-learning, social welfare participation, saving organization's resources, keeping working environment clean, maintaining harmonious interpersonal relations and conforming to social norms can help to find out the root causes for the differences in job satisfaction of China's employees as job satisfaction is derived from a cognitive process of comparing the existing job aspect with an individual's frame of reference. The study focuses on the feelings and reactions of health senior professionals from the perspectives of intrinsic satisfaction, work time and pay, and organizational identification.

### **2.2.2 Organizational Commitment and Affective Commitment**

Job satisfaction is an instant, affective response to the micro context like rewards and work-related contents, which is very sensitive and subject to dynamic changes. Unlike job satisfaction, organizational commitment is a relatively stable process that focuses not only on the micro context but also on the macro and includes organizational values, organizational goals, performance expectations, and the significance of staying in the organization (Vandenberg & Lance, 1992). Similarly, organizational commitment does not form at any time, but once formed, it will last a certain period of time.

Therefore, organizational commitment is an important variable to explore the work behaviors of employees within an organization. That is also why organizational commitment is viewed as an antecedent of turnover intention in a great deal of research in the field of organizational behavior (Zhang, 2015).

The concept of organizational commitment was put forward by American scholar Becker (1960) and refers to employees' feelings to willingly devote their efforts to the organization with the increase of "unilateral input" in the organization. Buchanan (1974) views organizational commitment as a partisan, affective attachment to the goals and values of the organization for its own sake, as well as a strong desire to stay with the organization. According to Mowday and Steer (1979), organizational commitment is a subjective measure that captures employees' perceptions of their identification with the organization's core values, their intent to stay with their organization, and their willingness to exert more effort than expected by their organization. Morrow (1983) classified the definitions of organizational commitment and found that the concept is defined in at least 25 ways because of different scientific backgrounds and different research purposes. In sum, there is no general agreement regarding what organizational commitment is among scholars.

Nevertheless, most researchers (Stevens et al., 1978; Meyer & Allen, 1991; Meyer et al., 1993) agree that organizational commitment is an employee's psychological contract with the organization and, according to them the dimensions of organizational commitment are more scientific than those of job satisfaction. Therefore, employers often use it to measure workers' attitude and further predict their turnover intention. Meanwhile, it can also serve as an indicator of organizational effectiveness to effectively predict workers' performance. Their research shows that employees' organizational commitment has an impact on turnover intention and other behaviors such as work performance, lateness for work, absenteeism and counterproductive work behaviors. In recent years, Chinese scholars have also used it as an important mediator linking job satisfaction to turnover intention (Zhang et al., 2013).

In 1990, Allen and Meyer created a three-component model of commitment, which

was developed to integrate numerous definitions of commitment that had been proliferating in the literature. Meyer and Allen's research indicates that there are three "mind sets" which can characterize an employee's commitment to the organization and which they classified as affective commitment, continuance commitment and normative commitment. These study results have been verified in many studies (Price, 1997). Especially, they have been widely accepted by scholars engaged in turnover research in the field of organizational behavior. The three-component model is defined as follows:

Affective commitment is the "desire" component, which is defined as the employee's positive affective attachment to the organization. An employee who is affectively committed strongly identifies with the goals of the organization and desires to remain a part of the organization. Affective commitment is characterized by three related factors: a strong belief in and acceptance of the organization's goals and values; a willingness to exert considerable effort on behalf of the organization; a strong desire to maintain membership in the organization (Yang, 2009).

Continuance commitment is the "need" component or the "gains versus losses" of working in an organization (Lai, 2009). An individual has to commit to the organization because he/she perceives a high cost of losing organizational membership. Continuance commitment is entirely a consideration of employees' vested interests (He, 2009). According to the exchange theory proposed by Becker (1960), continuance commitment is represented as a transaction out of economic concern without any affective feeling towards the organization. Whether the employee can keep the continuance commitment depends on two factors: (1) external employment opportunities; (2) the costs of leaving the organization including cumulative investment or derivative benefits.

Normative commitment: the individual commits to and remains with an organization because of feelings of obligation. It may also reflect an internalized norm, developed before the person joins the organization through family or other socialization processes, that one should be loyal to one's organization. For example, the organization

may have invested resources in training an employee who then feels a ‘moral’ obligation to put forth effort on the job and stay with the organization to ‘repay the debt’ (Wang, 2008).

Through empirical studies, Chinese scholars (Ling et al., 2000) created a five-component model of organizational commitment in China’s context, including affective commitment, ideal commitment, normative commitment, economic commitment and opportunity commitment. The results of confirmatory second-order factor analysis indicate that the five components of commitment can be subdivided into two second-order factors, namely psychological factors and social factors. The author believes that the inter-combination of factors also reflects the different forms of organizational commitment to a certain extent.

According to the research of Chinese scholars in recent years, (Zhang et al., 2013) organizational commitment refers to the attitude of an individual who is unwilling to leave the organization due to psychological satisfaction. It is also proposed that the formation mechanism of organizational commitment is the individual's affective and cognitive response to the organization driven by the individual’s need for autonomy. The practice of cultivating employees’ organizational commitment is intended to get them involved in the management activities and enhance their understanding of the organization, and then cause them to identify with and ultimately make them willingly to stay in the organization.

Research on organizational commitment has evolved from a single to a multi-factor construct and the fact that there is still not an agreement on the number of its components mirrors the gradual but constant research on the topic. Due to the complexity of the organizational commitment concept in itself and to its different perspectives, research focus and background of different researchers, there has been a considerable degree of crossing and overlapping, or even omissions in the measurement of this construct (Le et al., 2006). In fact, the pursuit of an absolute complete structural dimensional model without overlapping is neither necessary nor possible but the researcher should strive to avoid data contamination and reduce common bias as much

as possible.

Given the mixed results regarding the dimensions of organizational commitment, and previous findings that, within the components of organizational commitment, affective commitment has the strongest correlation with job-related variables, compared to normative and continuance commitment (e.g. Meyer & Allen, 1997; Meyer et al., 2012), the present study focuses only on affective commitment. This choice is backed up by earlier findings that, out of the three components of organizational commitment, only affective commitment has a significant impact on hospital employee's intentions to leave (Mosadeghrad et al., 2008), and by the very definition of the construct that best suits our research purpose: affective commitment is characterized by (1) a strong belief in and acceptance of the organization's goals and values, (2) a willingness to exert considerable effort on behalf of the organization, (3) a strong desire to maintain membership in the organization (Yang, 2009).

### **2.2.3 Influence Factors of Turnover Intention**

Turnover intention refers to the psychological state of dissatisfied employees before leaving a job (Peng, 2013). The study on turnover began in early 20<sup>th</sup> century and has become an important research field in organizational behavior and there is even an academic circle specializing in the "turnover" problem (Li, 2007). Hong Kong scholars Liang et al. (2012) contend that turnover intention refers to an individual's intention to leave the current job and the probability of looking for other jobs (Farh, 1978). Turnover intention reflects attitudes, wishes and behaviors of employees, therefore it is generally considered as the "predictor" of turnover behavior. Shore & Martin (1989) pointed out that turnover intention is a suitable dependent variable because it is directly related to the actual turnover behavior.

Researchers first studied the factors affecting the employee turnover at individual level in order to reveal how employees make their turnover decision. Based on previous studies, Spencer et al. (1983) established a causal model of turnover, believing that the work expectations and work value can affect the employees' attitude toward work.



Some non-work factors can also affect employees' intention to leave or stay and the final turnover intention will lead to the actual turnover behavior (Mowday et al.1982).

Some Chinese scholars put forward the model of internal and external causes of employee turnover (Cheng, 1999), which focuses on the relationship between labor market and turnover rate from the perspective of economics. Some proposed a five-component model and conducted empirical studies, thinking that the reasons why employees are willingly to stay with the organization are due to five factors, namely affective commitment, economic commitment, ideal commitment, opportunity commitment and normative commitment as well as to psychological attachment, economic dependence, satisfaction of expectations, lack of other employment opportunities, and heart at rest and virtue in completion (Yang et al., 2000 & 2001 & 2003).

The research on the influencing factors of clinician turnover conducted by Chinese scholars in recent years (Huang et al., 2014) found that 23% of them have moderate turnover intention and 6.1% have high turnover intention. There is no significant difference in turnover intention at the primary, intermediate and advanced stages of doctor's career development. As mentioned in the previous chapter, in the entry-level period, they hope to win appraisal from leaders and get fair pay. In the development period, they require a certain level of autonomy and hope for more training opportunities. In the mature period, they look for better career prospects and a high level of autonomy. Work autonomy and work load are the common factors influencing the stability of doctors. The higher title the doctors get, the stronger demand they have for career development. Whether the self value can be achieved is an important factor that affects the turnover of health senior professionals (Huang et al., 2014).

## **2.3 Job Satisfaction, Affective commitment and Turnover Intention**

### **2.3.1 Job Satisfaction on Turnover Intention**

Job satisfaction is the attitudinal variable first discovered in turnover research, whose effect on turnover intention has been the most intensively studied. The negative

relationship between job satisfaction and turnover intention has been widely accepted among Western scholars (Aryee & Leong, 1991; Koh & Goh, 1995; Lam, 1995; Currivan, 1999; Griffeth et al., 2000).

Koh & Goh (1995) measured the influence of different facets of job satisfaction on turnover intention and listed eight common facets: supervision, organization identification, nature of work, workload, work context, relationship among colleagues, rewards and job prospects. Chinese scholars (e.g. Zhang & Li, 2001; Ye, 2005; Zhao, 2013) also agree that job satisfaction is negatively correlated with turnover intention. Two surveys conducted among teachers and clinical doctors revealed an interesting result: one survey (Yang, 2006) administered to over 300 teachers from four representative universities in the North of China showed that job satisfaction of university teachers had a significant negative influence on turnover intention. The influence of demographic variables such as gender, age, title and education on job satisfaction is significantly different, but the teaching years showed no significant difference in influencing job satisfaction. The results show that there is a high correlation between various facets of job satisfaction and turnover intention.

Another study on the relationship between job satisfaction and turnover intention among 600 clinical doctors from four of the highest level hospitals in China concluded that the correlation between job satisfaction and turnover intention is significantly negative. Except for social status, working conditions and doctor-patient relationship, other 10 factors like work-related contents, occupational safety, leadership behavior, work pressure and training opportunities were found to significantly contribute to turnover intention. Generally speaking, the influencing factors of satisfaction were not closely related with the turnover intention, but it was found that the satisfaction of clinical doctors with the work itself, occupational safety and leadership behavior were negatively correlated with turnover intention. As knowledge workers, clinical doctors are more concerned about their work-related contents such as work autonomy, feedback, and pleasure and challenge of the job. Once they find that these attributes are absent from their work, they will have intention to leave. The research results show that the

work itself as an intrinsic motivation factor is more important than extrinsic motivation factors in retaining excellent clinical talents. Therefore, this puts forward the following hypothesis:

*H1: Job satisfaction is negatively correlated with the turnover intention of senior professionals in Chinese public hospitals.*

### **2.3.2 The Effect of Affective commitment on Turnover Intention**

Chinese and Western scholars have conducted an array of in-depth studies on the relationship between affective commitment and turnover intention and obtained a series of research results. For example, Zhang (2013) put forward the influence path of affective commitment and continuance commitment on turnover intention. In Yang's study (2013) focusing on medical workers, it was found that affective commitment is negatively correlated with turnover intention. The conclusion was that affective commitment can effectively predict turnover intention and, therefore, it is necessary to improve factors such as employee's welfare benefits and enhance team cooperation to strengthen employee's affective commitment and thus reduce turnover intention.

More than 200 studies have been conducted on this topic, which shows that the reliable prediction and relevant action on the factors that lead to organization commitment can result in low turnover intention (Mowday et al., 1982; Mathieu & Zajac, 1990; Hong, 2012). Most scholars agree that the correlation between affective commitment and turnover intention is stronger than that between job satisfaction and turnover intention and that affective commitment is a reliable predictor of turnover rate (Cluston, 2000; Mosadeghrad et al 2008; Mu, 2007; Zeng, 2012). An early empirical study conducted by Clugstion (2000) shows that affective commitment is significantly correlated with employee's intention to leave. Thus, strengthening affective commitment can significantly increase employee's loyalty and thus reduce turnover intention. Meanwhile, the affective commitment is more closely correlated with turnover intention than job satisfaction (Freund, 2005; Jaros, 1997). Affective commitment is positively correlated with the employees' motivation and negatively

correlated with the employees' turnover intention (Freund, 2005).

Empirical studies conducted in China also demonstrate that affective commitment is significantly and negatively correlated with turnover intention (Wang & Chen, 2011). When the affective commitment is high, turnover intention will be reduced. Employees who are highly committed to an organization desire to remain a part of the organization and are willingly to devote themselves to realizing the organization's goal. These research results are consistent with those of Western scholars.

Huang (2004) investigated the relationships between job satisfaction, affective commitment and turnover intention among production supervisors in the manufacturing sector in Xiamen and found that affective commitment can better explain turnover intention than job satisfaction does. Meanwhile, the affective commitment of production supervisors was significantly affected by the management style of managers, and further affected their turnover intention.

Several scholars (Yuan et al., 2007) used Price (1999) turnover intention model to analyze the relationship between affective commitment and turnover behavior and created a conceptual model on the influence of affective commitment of a firm's employees on turnover behavior. It was calculated that the correlation coefficients between affective commitment, continuance commitment, normative commitment and turnover intention were (-0.843,-0.643), (-0.733,-0.572) and (-0.600, -0.532), indicating that affective commitment had the most influence on employee's turnover intention among the respondents. Therefore, this thesis proposes the following hypothesis:

*H2: Affective commitment is negatively correlated with turnover intention of senior professionals in Chinese public hospitals.*

### **2.3.3 Job Satisfaction and Affective commitment**

Most Western scholars think that job satisfaction is positively correlated with affective commitment (e.g. Cluston, 2000; Freund, 2005). Based on different measurement scales and research emphases, three ideas have been developed as follows:

1. *Job satisfaction and affective commitment are related to each other:* According to this idea, job satisfaction and affective commitment interact with each other. Research has found a disparate influence between these two constructs or, more specifically, the influence of job satisfaction on affective commitment is stronger than that of the latter on the former, which has been widely accepted in Western literature (Clugston, 2000). Job satisfaction is a positive affective state of employees resulting from pleasurable job experiences. When they take such positive attitude towards the organization, they will identify with the organization and affectively commit to it. However job satisfaction is subject to change.

In turn, affective commitment refers to the feelings an employee has about the whole organization resulting from the identification with the goals and values of the organization and the positive attitude and behavior tendency thus caused, which is relatively stable. It reflects an employee's overall appraisal of the organization and the attitudes towards it. Job satisfaction and affective commitment interact with each other and jointly contribute to the employee turnover intention. Employees are generally more concerned about their work than about the organization. Job satisfaction reflects the employee's attitude towards the specific work, which, in contrast with affective commitment (Li et al., 2011), is more sensitive to and directly changes with work-related contents. However, affective commitment is less affected by the work-related contents (Li, 2013).

2. *Job satisfaction is causative of affective commitment:* At present, most research assumes that job satisfaction is the cause of organizational commitment (Mowday et al., 1982; Lincoln & Kalleberg, 1985 & 1990; Mueller & Price, 1989; Mueller et al., 1994; Wallace et al, 1995; Fu, 2002; Li, 2004;). Scholars widely accept that the employee's cognitive process of a job is from the work-related content to the organization. A survey of 163 workers (Farrell & Rusbult, 1981) showed that job satisfaction is directly correlated with organizational commitment or, more specifically, the higher the job satisfaction is, the higher the organizational commitment is. Farren & Rusbult's survey

studied accountants and nurses, and found that there is a positive correlation between job satisfaction and organizational commitment – of which affective commitment is a component – and that the former is the antecedent of the latter. In a study conducted by Chinese scholars (Liu & Pei, 2008) it was concluded that a high degree of job satisfaction can strengthen affective commitment and improve work performance (Luo et al, 2014). They also proved that job satisfaction is a cause of affective commitment. Job satisfaction is closely related with the specific work conditions and it is more likely to be affected by internal and external factors than affective commitment.

3. *Affective commitment affects job satisfaction*: Job satisfaction is assumed to be a mediator between affective commitment and turnover intention, that is to say, there is a causal relationship between affective commitment and job satisfaction with the former as the cause and the latter as the effect (Freund, 2005; Tan&Akhta,1998;Wu, 2015).

Though the association between job satisfaction and organizational commitment or affective commitment is complex, the positive correlation between these variables has been widely confirmed (e.g. Cluston, 2000;Freund, 2005).Therefore, this study puts forward the hypothesis that:

H3: *Job satisfaction is positively correlated with affective commitment of senior professionals in China's public hospitals.*

#### **2.3.4 Effect of the Job Satisfaction and Affective commitment on Turnover Intention**

As per discussed above, job satisfaction and commitment have been so far the most studied predictive variables that affect turnover intention (Lee, et al. 2000). Do they influence the turnover intention individually or collectively? Different conclusions have been reached about this based on different research objects at different times (Mottaz, 1988; Lance, 1991). There are three main ideas in this research field:

1. The first idea argues that affective commitment is the mediator through which job satisfaction affects turnover intention ((Cluston, 2000; Mosadeghrad et al. 2008). For example, a study of nursing turnover intention suggested that job satisfaction has indirect influence on turnover intention whereas organizational commitment has direct impact on nurse's turnover intention (Lum et. al 1998). Moreover, Clugston (2000) asserts that affective commitment mediates the relationship between job satisfaction and intention to leave. Some studies suggest that because job opportunities function as a regulator in deciding to leave, job satisfaction becomes the best indicator in predicting an employee's turnover intention (Muchinsky & Morrow, 1980). However it should be noted that Bluedorn (1982) and Williams & Hazer (1986) conducted analysis using a structural equation model method and concluded that employee's personal characteristics and work environment (expectations, age, nature of work and equipment) can directly influence employee's job satisfaction and further influence affective commitment via job satisfaction.

2. The second idea asserts that job satisfaction is the mediator linking affective commitment to turnover intention, through which affective commitment indirectly affects the turnover intention (Freund, 2005).

3. The third idea thinks that job satisfaction affects affective commitment and that both job satisfaction and affective commitment collectively affect employee's turnover intention. Either job satisfaction or affective commitment alone cannot well predict the turnover intention and analyze turnover behaviors. Only when the two factors are combined, can they well and reliably predict and enable to analyze turnover intention (Price, 1997; Zhang, 2002; Galletta et al., 2011).

Zhang (2002) applied an improved turnover model to his empirical study on the turnover intention of employees in China's enterprises and suggested that job satisfaction, affective commitment and job search are the important variables in predicting employee turnover. The turnover model of employees in railway transportation enterprises created by Ye (2005) showed that job satisfaction and affective commitment are negatively correlated with turnover intention.

A summary of the relationships between job satisfaction, affective commitment and turnover intention is reported in Table 2-1. Based on the previous literature review, the following hypothesis is proposed:

H4: *Affective commitment is the mediator through which job satisfaction affects the turnover intention of senior professionals in public hospitals.*



Table 2-1 Summary of the Relationships from Selected Western Literature

Relationships	Correlation Results	Conclusion
Job satisfaction—turnover intention	r=-.29 (Lum et al 1998); r=-.53 (Freund, 2005); r=-.53 (Cluston, 2000);	Job satisfaction has an indirect influence on turnover intention whereas organizational commitment has the strongest and most direct impact (Lum et al 1998); Job satisfaction has direct influence on turnover intention (Freund, 2005); Job satisfaction has both direct and indirect influence on turnover intention (Cluston, 2000; Mosadeghrad, et al 2008);
Affective commitment—turnover intention	r=-.56 (Freund, 2005); r=-.50 (Cluston, 2000);	Affective commitment has significant direct impact on turnover intention (Cluston, 2000);
Job satisfaction—affective commitment	r=.59 (Freund, 2005); r=.57 (Cluston, 2000);	Affective commitment affects job satisfaction (Freund, 2005); Job satisfaction has positive impact on affective commitment (Cluston, 2000);
Job satisfaction, affective commitment and turnover intention	Affective commitment partially mediates the relationship between job satisfaction and turnover intention (Cluston, 2000; Mosadeghrad et al 2008);	

Source: Lum et al 1998; Freund, 2005; Cluston, 2000; Mosadeghrad et al 2008

## 2.4 Research Model and Research Hypotheses

As suggested above, the theoretical research on the relationships between job satisfaction and affective commitment and turnover intention in China and Western countries has been extensively made and achieved sound results. However, the scope of the research objects is still limited, especially in what concerns the lack of studies on senior professionals in public hospitals, which can be seen from the following aspects:

1. According to the literature review, the studies on the relationships between job

satisfaction and affective commitment and turnover intention have been extensively made, which includes the study on the relationships between the job satisfaction, affective commitment and turnover intention of employees in different types of enterprises, the study on the separate effect of job satisfaction and affective commitment on turnover intention, and the study on the interaction among different factors. However the research on the relationships between job satisfaction and affective commitment and turnover intention in the case of senior medical professionals in public hospitals has not been sufficiently studied yet. Given the important role of senior professionals in public hospitals and their high rate of turnover in the context under study (China's public hospitals), it is necessary to explore these relationships in relation to this particular group.

2. Can the results from Western contexts be applied in China? In China's unique social and cultural context, the influence of affective commitment on employee retention is far greater than that of job satisfaction on enterprises in Western countries (Liu & Pei, 2008). Few studies have been conducted in China on the turnover of health senior professionals and considering the country's social and cultural background, an empirical study on these relationships will contribute to shed purposeful light on the management practices in China's public hospitals.

Based on the above, combined with the previous literature review, the four hypotheses in this research are rounded up as follows:

H1: Job satisfaction is negatively correlated with the turnover intention of healthcare senior professionals in China's public hospitals.

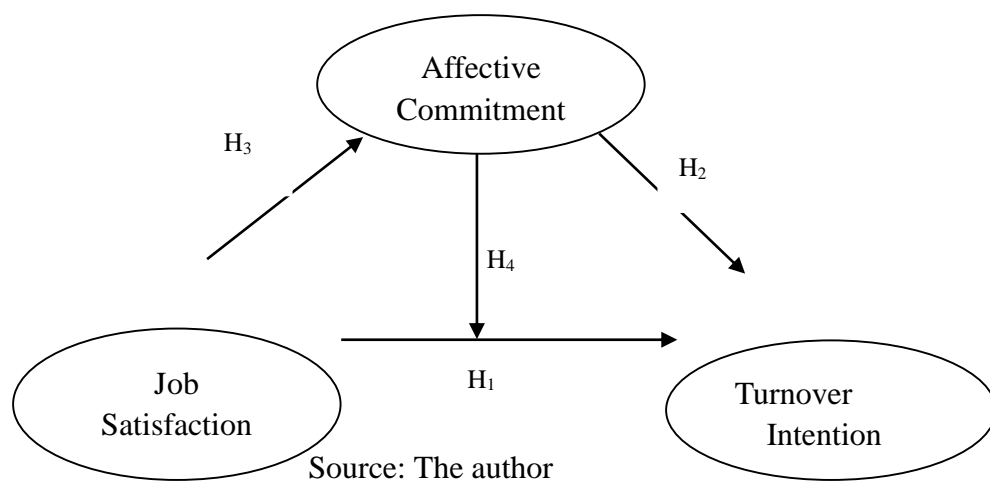
H2: Affective commitment is negatively correlated with the turnover intention of healthcare senior professionals in China's public hospitals.

H3: Job satisfaction is positively correlated with affective commitment of healthcare senior professionals in China's public hospitals.

H4: Affective commitment is a mediator through which job satisfaction affects the turnover intention of healthcare senior professionals in China's public hospitals.

Before the questionnaire survey, based on the literature review and on the above hypotheses, the model of the relationships between job satisfaction and affective commitment and turnover intention relating to the health senior professionals is depicted in Figure 2-1:

Figure 2-1 Hypothetical model of the relationships between job satisfaction and affective commitment and turnover intention relating to the senior professionals in public hospitals



## 2.5 Chapter Summary

In this chapter, the literature on the turnover situation and turnover reasons of employees in China's public hospitals as well as the influencing factors was first reviewed and summarized; second, the relevant theories on job satisfaction, affective commitment and turnover intention in Western countries and China were comprehensively reviewed and the dimensions of the three variables and influencing factors have been analyzed; third, the relationships between job satisfaction, affective commitment and turnover intention were discussed. Especially, the separate effect and collective effect of job satisfaction and affective commitment on turnover intention were reviewed. Lastly, the limitations of relevant research have been presented and four hypotheses were put forward as well as the hypothetical model depicting the above relationships.

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## **Chapter 3**

### **Empirical Research**

#### **3.1 Research Subjects and Method**

##### **3.1.1 Research Subjects**

The subjects of this thesis are senior medical professionals of public hospitals in Guangdong Province, namely: directors of clinical departments, directors of national and provincial key disciplines/laboratories, chairmen or vice chairmen of professional societies at all levels, leaders of national research projects/research achievements, editors or deputy editors of professional textbooks, professors, chief director doctors, chief director technicians, and researchers.

For the purpose of this research 33 third level Class-A hospitals in Guangdong Province have been selected as investigation subjects out of a total of 78 hospitals of this category existing in the province. The selection was made based on the geographical distribution of public hospitals in Guangdong Province as all these 33 hospitals are located in its nine major cities: Guangzhou, Shenzhen, Zhongshan, Foshan, Zhuhai, Zhanjiang, Zengcheng, Panyu, and Shaoguan.

After choosing the senior professionals in the 33 hospitals as the research subjects, the researcher invited a senior administration executive in every hospital to be a participant in charge of the project, that is, of receiving all the mailed questionnaires and handing them out to the respondents in accordance with the established criteria for senior professional standards. Then, after the respondents had completed the questionnaire, they were asked to collect them, put them directly in a return envelope with postage, and send them directly to the researcher.

##### **3.1.2 Definition and Measurement of Basic Concepts**

Given that there are various viewpoints on the three variables involved in the empirical research herein, the explanations of relevant variables are given as follows:

*Job satisfaction:* This thesis follows the job satisfaction definition and scope put forward by Farh (2007), which links job satisfaction to job content, showing the essential reasons for the differences in job satisfaction, namely, that job satisfaction is the result obtained after a person explains the characteristics of the work according to his reference frame (Zhang, 2013). Specifically, and in the scope of this research, job satisfaction refers to the feelings of hospital senior professionals at work, as well as to the feelings and affective reactions to other job-related factors.

This study uses Farh's Scale (Farh & Chen, 2000), since Farh has conducted relatively early some all-around studies on the characteristics of living quality in China, exploring the concept of Chinese job satisfaction through adapting the two job satisfaction scales which have been widely used in the West (Minnesota job satisfaction scale MSQ, job description scale JDI). His research found that there are differences in the concept of quality of life between Chinese and Westerners that will impact the concept of job satisfaction, and thus he has incorporated these differences and adjusted the items of the concept in what regards social culture and job satisfaction. Such understanding of cultural differences rendered Farh's measurement tools in line with China's national conditions, which is thought to serve better the research purposes rather than mechanically copying Western theories and concepts.

The adjusted scale is fit for the Chinese cultural background, and more suitable for the research objects in this thesis. The results of the brainstorming short interviews conducted at the early period of this research were also incorporated, resulting in a total of 13 dimensions and 56 items in the scale. Observation dimension factors include working environment, salary bonuses, benefits, promotion, training development, the nature of work, leadership style, peer cooperation, unit image, communication and collaboration, organizational system, organizational culture, and workload.

*Affective commitment:* This study uses the affective commitment of the three-factor theoretical model developed by Allen and Meyer (1990), which is generally recognized in the academia.

Affective commitment(AC)mainly refers to affective attachment, identification

and commitment of the staff to the organization, as well as to the strength of personal identification of participating in the organization (Rouzbahani et al., 2013). AC has three characteristics: (1) a strong belief in and to adopt the organizational goals and values by the individual; (2) individual's willingness to make sacrifices and contributions in the interests of the organization voluntarily; and (3) individual's strong desire and pride to become and maintain him/herself as a member of the organization. Such affective commitment can make employees maintain high loyalty, and those with such commitment to the organization have both rational sense of contract and responsibility, and a sense of belonging and affective dependence. They feel that they have a sense of ownership and understanding of the organization, and have the appropriate behavior in the organization.

Combining the recommendations of the interviewed subjects in the early period of this research, we have reworded specific expression paraphrases in line with the hospital staff. The affective commitment reflects target respondents' recognition of their own hospital, recognition of the hospital values, joy to join the hospital, willingness to submit to the assignments of the hospital, and hopefulness about the hospital future.

*Turnover intention.* The empirical study in this thesis uses Mobley's definition of turnover intention (1979), that is, after some time of working in a particular organization, through careful consideration, employees have not yet resigned but they have a deliberate intention to leave the organization. This intention provides an effective predictive factor of employee turnover behavior, and through its research, it may help organizational managers to effectively monitor and address this issue, in order to avoid resignation behavior. The turnover intention is measured through the scale proposed by Mobley et al. (1979), while some of the items have also been paraphrased in line with the concepts of Chinese culture. The scale contains a total of six items, mainly measuring employees' impression so their department, intention to resign, to find other jobs and the actual possibility of finding a job.

Personal data in the scale design include: gender, marital status, hospital size and ownership, education, tenure, position. A five-point Likert scale was used to measure

job satisfaction, affective commitment and turnover intention.

## **3.2 Data Collection and Data Analysis**

### **3.2.1 Questionnaire Design, Administration and Data Collection**

In order to ensure the rationality and effectiveness of the research results, this thesis adopts a two-stage questionnaire approach, namely, before the formal questionnaire a small sample survey was carried out. At first, the author individually interviewed twelve hospital senior professionals who had resigned in the last three years, and invited them to evaluate the questionnaire questions and answers. Their identities are: 2 orthopedic directors, 1 pediatrics director, 1 laboratory director, 1 fertility director, 1 organ transplantation PhD, 1 laboratory PhD, 1 professor from the Department of Gynecology, 1 director from the Department of Gastrointestinal Surgery, 1 PhD from the Department of Cardiac Surgery, 1 PhD from the Department of Pharmacy and 1 PhD from the Department of Ophthalmology.

In addition, the author conducted telephone interviews with senior executives of thirteen hospitals in the aforementioned cities of Guangdong Province, and their identities are: 3 hospital presidents, 5 medical directors, and 5 office directors, and invited them to consult and try to complete the questions in the survey. As a result of these tests, in the original questionnaire, questions have been increased, deleted and modified as more than 50% of people interviewed thought they were not explicit enough. Some comments included: “questions are too academic”, “Likert score method is not easy to understand”, “question design is not comprehensive enough, or “it is not a true reflection of the hospital”. Based on these preliminary tests, the author has revised the questionnaire, eliminated some variables indicators, or re-classified them, and finally made a formal large sample questionnaire with the objective of making the questions both concise and relevant.,

In addition, the author held a project seminar during the annual studying class of 200 members of Association Hospital Organizations of Hospital Administration Professional Committee in Guangdong, which is supported by the 33 regional hospitals

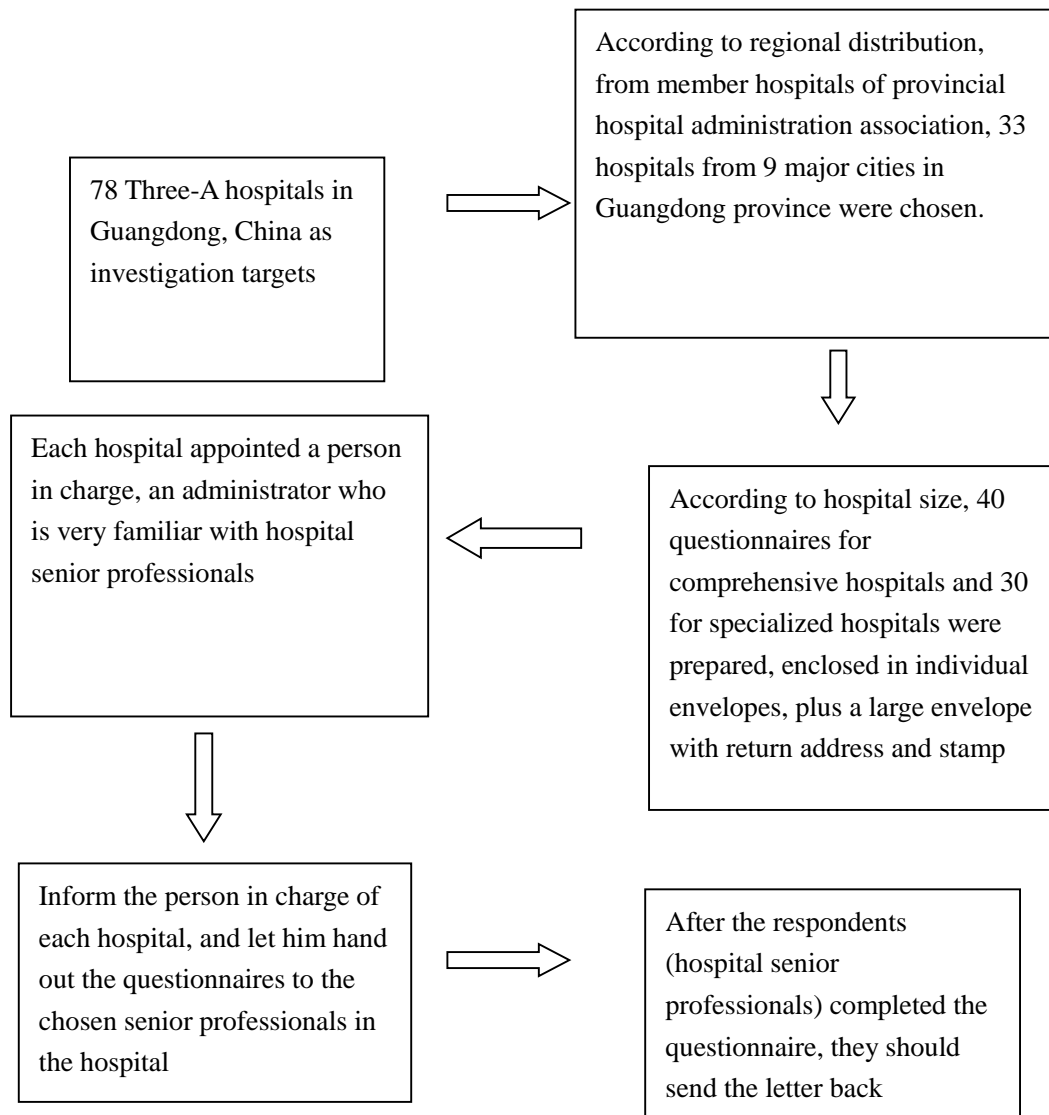


object of this study, and has explained in detail the research purpose, method and procedures. When the questionnaire was finalized the selected people in charge of the project in each hospital was called and the questionnaires were sent together with individual envelopes and a large, filled in and stamped return envelope. The participant in charge in each hospital was carefully informed about the selection criteria of the respondents who should meet the following conditions: clinical department director, national and provincial key discipline/laboratory director, chairman or vice chairman of professional societies at all levels, national research project/research leader, professional textbook editor or deputy editor, professor, chief director doctor, chief director technician, or researcher.

Then the person in charge at the hospital handed out the questionnaires in accordance with the standards set by the researcher, and after completion mailed them back. As each respondent would fill his/her questionnaire, fold and insert it in its own envelope, the entire process was conducted so that the person in charge could not see each respondents' answers, reducing the respondents' psychological pressure, so as to collect more realistic and objective answers (Xu et al. 2014) (Figure 3-1).

A total of 1,500 questionnaires were distributed with 690 copies returned; after removing invalid questionnaires we got 508 valid questionnaires with an effective return rate of 30%. The specific process is illustrated in Figure 3-1.

Figure 3-1 Investigation Process



Source: The author.

### 3.2.2 Data Analysis

For the statistical processing of the data of this study, the author used EXCEL software for data entry, as well as SPSS20.0 and AMOS20.0 as statistical tools to analyze samples' basic statistics, reliability and validity. Then the author analyzed the differences of different groups according to various factors. SPSS was mainly used for exploratory factor analysis, and analysis of reliability and validity of the variables;

AMOS was used for the path analysis of the theoretical model proposed, as well as research hypothesis testing. Data analysis process is as follows:

After data collection, we first conducted a confirmatory factor analysis (CFA) to confirm the factor structures of the scales used in this study. In case the CFA indicates questionable model fit, an exploratory factor analysis (EFA) would be run to discover factor structures of all items in the questionnaire, followed by CFA again. Next, we tested the internal consistency using Cronbach's coefficient alpha. Following these preliminary tests, descriptive statistics comprising means, standard deviation, and correlations were computed. Then, one-way ANOVA analysis was performed to examine the differences between demographic variables. Next, SEM analysis was conducted to test whether the hypotheses stated in this study were supported or not.

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## Chapter 4

### Results and Data analysis

#### 4.1 Descriptive Analysis

Among the 508 valid questionnaires received, men account for the majority with 56.3%, and the majority of them are married, 85.8%. Most of the respondents have worked for more than 15 years, 41.3%, and 31.5% have worked for 6 - 15 years with the rest for five years or less (27.2%). In what concern's academic degree distribution, 42.5% of people have a PhD or master degree; in the position, the majority are clinical directors and leaders of functional departments, accounting for 65.62%, while the minority hold non-management positions, accounting for 34.38%.

Most of the respondent work for large-scale hospitals that have 1000-2000 beds, accounting for 46.2%, followed by 500-1000 beds, 25.4%, and 2000 beds accounting for 24.4%. In terms of hospital ownership, the proportion of staff from hospitals directly affiliated to universities, indirectly affiliated to universities and non-affiliated to universities is: 26.8%, 19.5% and 53.7% respectively. Specific sample structure is shown in Table 4-1.

Using the various control variables, we have carried out a regression analysis of the influencing factors of job satisfaction on turnover intention, of which we found that only the size of the hospital and tenure and job position have the Sig value of 0 and 0.001, referring that the parameter validation of these factors is statistically significant. Other factors, such as sex, marriage, hospital ownership and level of education, are not significant in the statistical analysis of factors influencing hospital senior professionals' turnover in our sample.

Table 4-1 Descriptive Analysis

Variable	Type	Number	Percentage %
Sex	male	286	56.3
	female	222	43.7
Marital status	unmarried	56	11.0
	married	436	85.8
	divorced	16	3.1
Hospital beds	less than 500	20	3.9
	500—1000	129	25.4
	1001—1500	147	28.9
	1501—2000	88	17.3
	Over 2000	124	24.4
Hospital Ownership	directly affiliated to universities	136	26.8
	indirectly affiliated to universities	99	19.5
	non-affiliated to universities	273	53.7
Education	undergraduate and under master	290	57.1
	PhD	118	23.2
		100	19.3
Tenure	5 years and under	138	27.2
	6—15 years	160	31.5
	more than 15 years	210	41.3
Position	functional leader	102	21.25
	clinical director	213	44.37
	medical staff	193	37.99

Source: the author

## 4.2 Factor Analysis

### 4.2.1 Job Satisfaction

A confirmatory factor analysis with the original factor structure shows unacceptable fit indicators ( $CMIN / DF = 3.137$ ,  $CFI = 0.944$ ,  $RMSEA = 0.065$ ,  $SRMR = 0.0486$ ) and therefore an exploratory factor analysis of all 56 items was conducted. An initial exploration shows a mixed solution and, after cleaning on the basis of facial validity and reliability, a final three-factor solution was found which is both valid

(KMO = .922, Bartlett's  $X^2(91) = 2879.348$ ,  $p < .001$ ), parsimonious and meaningful. The three dimensions extracted from factor analysis are: organizational identification, working hours and development, intrinsic satisfaction. Organizational identification includes six questions such as "the organizational cultural building of the hospital"; working hours and development include four questions such as "working hour hours"; intrinsic satisfaction includes four questions, for example, "Sense of achievement from current job".

#### **4.2.2 Affective Commitment**

A confirmatory factor analysis with the original factor structure displays unacceptable fit indicators (CMIN / DF = 3.576, CFI0, 983, RMSEA = 0.071, SRMR = 0.0296) and therefore an exploratory factor analysis of all items was conducted. An initial exploration shows a mixed solution and, after cleaning on the basis of facial validity and reliability, a final one-factor solution was found which is both valid (KMO = .813, Bartlett's  $X^2(66) = 952.837$ ,  $p < .001$ ), parsimonious and meaningful. The affective commitment construct includes four statements such as "I am very glad that I chose to work in this department".

#### **4.2.3 Turnover Intention**

A confirmatory factor analysis with the original factor structure displays unacceptable fit indicators (CMIN / DF = 7.76, CFI = 0.98, RMSEA = 0.115, SRMR = 0.0266) and therefore an exploratory factor analysis of 4 items was conducted. An initial exploration shows a mixed solution and after cleaning on the basis of facial validity and reliability, a final one-factor solution was found which is both valid (KMO = .769, Bartlett's  $X^2(66) = 679.211$ ,  $p < .001$ ), parsimonious and meaningful. The factor includes statement like "If there is a better offer, will you leave your current department?"

The aggregate factor analysis of the three constructs is shown in Table 4-2.

Table 4-2 Survey Items of Reliability and Validity of the  
Factor Analysis in Three Scales

Scale	Dimension	Total variance explained
Job Satisfaction	Organizational Identification	60.99%
	Working hours & Development	
	Intrinsic satisfaction	
Affective Commitment	Affective Commitment	67.87%
Turnover Intention	Turnover Intention	63.74%

Source: the author

#### 4.2.4 CFA Tests of Three Scales

Several Confirmatory Factor Analyses (CFA) using IBM SPSS AMOS software were turned to confirm the theoretical factor structure of the three scales. To judge the fit of the scale, we adopted several criteria, including RMSEA, AGFI, CFI among others (Hair, et al., 2010) as Table 4-3 shows. Whenever fit indices fall short from the acceptance criteria, we have employed a subsequent exploratory factor analysis followed by a CFA again to ensure robustness. The final scales and their items are reported in Table 4-4.

Table 4-3 Model fit criteria for CFA analysis

Nature	CMIN/DF	AGFI	GFI	CFI	NFI	RMSEA
Reference Value	≤5	>0.9	>0.9	>0.9	>0.9	<0.08
Job Satisfaction	3.137	.911	.937	.944	.921	.065
Affective Commitment	3.992	.953	.984	.988	.984	.077
Turnover Intention	2.058	.980	.996	.994	.989	.046

Source: the author



Table 4-4 Revised Questionnaire Dimensions

Construct	Factor	Indicator	Items
Job Satisfaction	Intrinsic satisfaction	JS03	The sense of achievement from the current work
		JS08	Are you able to develop your abilities?
		JS10	Is your job challenging and meaningful?
		JS14	Is your current job suitable to your interests?
	Working hours and Development	JS15	Hospital training can provide personnel with the opportunities to learn and enhance professional knowledge
		JS20	How is the annual holidays for the hospital staff
		JS45	Do you think the current working hours reasonable
		JS53	How do you think of the overtime work in this hospital
	Organizational Identification	JS31	Organizational culture and construction in the hospital
		JS34	How do you do think of the sense of honor and pride of the staff in other occasions
		JS35	How is the status of the hospital in the medical industry
		JS42	Reputation of the department in the staff's eyes
		JS44	Cooperation of the working group of the hospital
Affective Commitment	OC01	I always tell my friends that I am working in an ideal workplace.	
	OC08	I believe the managers' abilities and that staying here is worthwhile.	
	OC09	I am familiar with the environment and life here, and feel secure.	
	OC10	I am very glad to have chosen to work here.	
	OC13	The hospital can stimulate me to have the best performances.	
Turnover Intention	TIS01	If you have a better opportunity, will you leave this hospital?	
	TIS03	Do you talk about your recurrent thought of leaving?	
	TIS05	Do you plan to work in the current workplace for a long time for better personal development?	
	TIS06	Will you leave the hospital to find a new job or hospital for sure?	

Source: The author

Next, the results of correlation analysis and ANOVA analysis on the key variables are reported and summarized.

### 4.3 Correlation analysis

Table 4-5 reports significant relations between the key variables. These findings provide primary supports for the research model, even if causal relationships are not evident.

Table 4-5 Mean, standard deviation, Correlation and Cronbach's  $\alpha$

	Mean Value	Standard Deviation	Job Satisfaction	<i>Organizational Identification</i>	<i>Working hours &amp; Development</i>	<i>Intrinsic satisfaction</i>	Affective Commitment	Turnover intention
<b>Job Satisfaction</b>	3.40	0.54	<b>(0.90)</b>					
<i>Organizational Identification</i>	3.49	0.60	.81**	<b>(0.87)</b>				
<i>Working hours &amp; development</i>	3.17	0.75	.86**	.54**	<b>(0.77)</b>			
<i>Intrinsic satisfaction</i>	3.51	0.59	.80**	.51**	.53**	<b>(0.79)</b>		
<b>Affective Commitment</b>	3.48	0.78	.72**	.60**	.57**	.62**	<b>(0.88)</b>	
<b>Turnover Intention</b>	2.57	.77	-.42**	-.30**	-.35**	-.39**	-.49**	<b>(0.69)</b>

Source: the author

As shown instable 4-5, the overall measure of senior professionals in the surveyed public hospitals in Guangdong Province are as follows: job satisfaction value  $3.4 \pm 0.54$ , affective commitment value  $3.48 \pm 0.78$ , turnover intention  $2.57 \pm 0.77$ , wherein the dimensions of job satisfaction, organizational identification, working time and salary, intrinsic satisfaction value are 3.49, 3.17, and 3.51. It is interesting to note that senior professionals in the subject public hospitals in Guangdong Province have the lowest satisfaction on working hours and development.

#### **4.4 Analysis of variance test**

Table 4-6 is the summary of the hospital characteristics' impact on the key variables by using analysis of variance (ANOVA). The table shows that there is significant difference on the level of turnover intention of the senior medical professions according to different sizes of hospitals, education, tenure and position. Health senior professionals in small scale hospitals have lower turnover intention than those working in large scale hospitals. More specifically, the mean value of turnover intention of health senior professionals in hospitals with more than 2000 beds is the highest, while the mean value of turnover intention in hospitals with less than 500 beds is the lowest, suggesting that the hospital senior professionals' turnover intention dimension varies significantly with the hospital size.

The difference in the affective commitment is significant in terms of hospital senior professionals' education levels. The mean value of affective commitment of professionals with a master degree is the highest while professionals with an undergraduate degree is the lowest. In Mainland China, most doctors currently get their Master's degree by taking an on-the-job graduate program under the financial support of hospitals, which will improve the top talents' affective attachment to their hospitals.

The affective commitment and turnover intention present significant difference on the tenure of hospital senior professionals. Hospital senior professionals who have work experience of five years and under are shown to have the highest affective commitment, and the lowest turnover intention; professionals who have 6-15 years of work

experience have lower affective commitment and highest turnover intention; professionals who have more than 15 years of work experience have average mean value of affective commitment and turnover intention. These results imply that hospitals should particularly consider hospital senior professionals who have 6-15 years of work experience as a key group, and provide them with more suitable development platforms and space around the characteristics of their behaviors towards the organization.

Among groups of different positions, leaders of functional departments show the highest job satisfaction and affective commitment with the lowest turnover intention. Senior professionals with no management positions have the lowest job satisfaction and affective commitment, and the highest turnover intention. The difference between functional leader and clinical director is not significant.

Table 4-6 ANOVA Analysis

Factor	Mean Value		Standard Deviation		Turnover Intention		
	Job Satisfaction		Affective Commitment				
Size (bed number)	Below 500 (N=20)	3.5083	.44418	3.7000	.70338	2.2750	.78178
	500—1000 (N=129)	3.3637	.54166	3.4217	.74927	2.3411	.74211
	1001--1500 (N=147)	3.3282	.52162	3.4218	.78028	2.5153	.79231
	1501---2000 (N=88)	3.4460	.59773	3.5045	.75261	2.6989	.66540
	Above 2000 (N=124)	3.4059	.53407	3.5210	.74346	2.8206	.77010
F (Group)		1.040		.931		8.017	
Sig. (Group)		.386		.446		.000	
Education	Bachelor and under (N=290)	3.3399	.55432	3.3848	.76898	2.5793	.78160
	Master (N=118)	3.4583	.51667	3.6017	.68012	2.5932	.77266
	PhD (N=100)	3.4225	.52240	3.5680	.77471	2.5050	.75543
F (Group)		2.341		4.536		.424	
Sig. (Group)		.097		.011		.654	
Tenure	Five years and under (N=138)	3.4438	.51312	3.6275	.68995	2.4076	.70973
	6-15 years (N=160)	3.3104	.53754	3.3150	.74210	2.7422	.79227
	Over 15 years (N=210)	3.4000	.55761	3.4876	.78694	2.5405	.77654
F (Group)		2.429		6.561		7.334	
Sig. (Group)		.089		.002		.001	
Position	Functional leader (N=102)	3.5212	.49275	3.6451	.7408	2.3162	.85808
	Clinical director (N=213)	3.3979	.54185	3.4854	.7581	2.6150	.78061
	Medical staff (N=193)	3.2953	.55041	3.3637	.7461	2.6490	.69092
F (Group)		6.062		4.760		7.018	
Sig. (Group)		.003		.009		.001	

Note: \* P < 0.05, \*\* P < 0.01, \*\*\* P < 0.001

Source: the author

## 4.5 Hypothesis Testing

### 4.5.1 Structural Equation Model (SEM)

Hypotheses 1, 2, 3 and 4 were tested using a Structural Equation Model (SEM).

IBM AMOS package software was used to analyze the relationships in the entire research model and the relationships among the variables in the model. Again, the criteria of chi-square divided by degrees of freedom, GFI, AGFI, NFI, CFI, RMR and RMSEA were used to test the fit of the model (Hair et al. 2010), and the model fit statistics were reported as shown in Table 4-7.

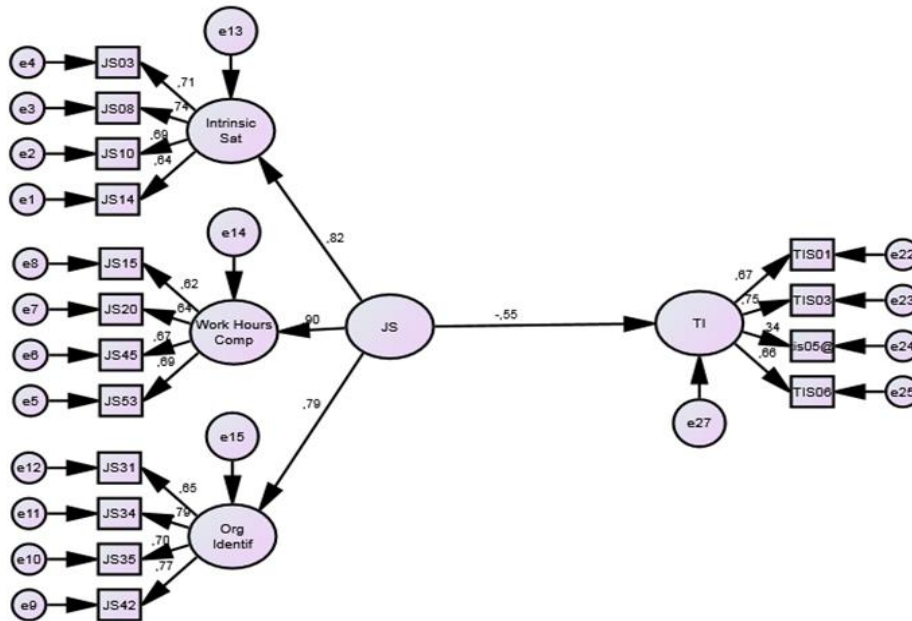
Baron and Kenny (1986) suggest that four steps are necessary to test the mediation effect. First of all, there should be a significant relation between the predictor (in this case, job satisfaction), and the outcome (turnover intention in this study). Next, is to show that there is a correlation between the predictor and the suspected mediator (affective commitment in this study). The third step is to show an association between the mediator and the outcome. Table 4-5 reveals that the above three steps as preconditions for mediation analyses are met. The fourth step was performed by using SEM for two analyses. In the first analysis, job satisfaction was entered as a predictor for turnover intention while in the second analysis, affective commitment was included as a mediator. Results are presented in Figure 4-1 and Figure 4-2 respectively.

Table 4-7 Model fit criterial for CFA analysis

Nature	CMIN/DF	AGFI	GFI	CFI	NFI	RMSEA
Reference Value	≤5	>0.9	>0.9	>0.9	>0.9	<0.08
Direct Effect Model	2.382	.923	.944	.949	.916	.052
Indirect Effect Model	2.336	.925	.925	.945	.909	.051

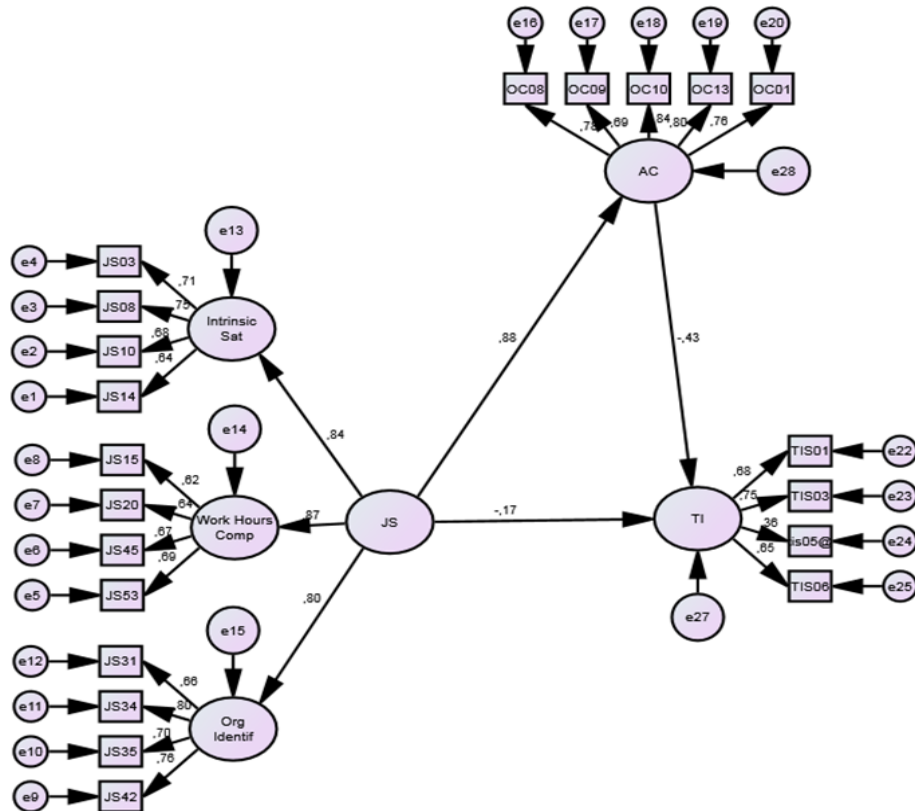
Source: the author

Figure 4-1 Direct Effect of Job Satisfaction on Turnover Intention



Source: the author.

Figure 4-2 Indirect Effect of Job Satisfaction on Turnover Intention



Source: the author.

As Figure 4-2 shows, the direct effects of job satisfaction on turnover intention decrease to non-significance level after including affective commitment as a mediator in the model (Figure 4-2). Thus, Hypothesis 1 that job satisfaction is negatively correlated with turnover intention, is not supported. The overall model (Figure 4-2) also shows that there is a close positive association between job satisfaction and affective commitment, which is negatively related with turnover intention. Thus, Hypothesis 2 that affective commitment is negatively correlated with turnover intention, is supported; and Hypothesis 3 that job satisfaction is positively correlated with affective commitment, is also supported. The Sobel-test (Sobel, 1982, Baron and Kenny) confirms the significance of mediation effect (see Table 4-8). Thus, Hypothesis 4 that affective commitment is a mediator through which job satisfaction affects the turnover intention, is supported. This means that taking into account the indirect effect of turnover intention via affective commitment reliably adds to the explanation of turnover intention. The result suggests that job satisfaction has only an indirect impact on turnover intention.

Table 4-8 Result Map of Three Dimensions' Mediator Variables

	T statistic	Std. Error	P-value
Sobel z =	-2.809	0.186	.004
Aroian z =	-2.799	0.186	.005
Goodman z =	-2.820	0.185	.004

Source: the author.

#### 4.5.2 Summary of Hypothesis Test Results

By performing the relevant test analysis and constructing a structural equation model, we confirmed the hypothesis proposed in the previous literature review, particularly H1 to H4 for senior medical professionals in the hospitals surveyed. The aggregated test results are summarized below (Table 4-9).



Table 4-9 Summary of Hypothesis Test Results

Nr.	Hypothesis	Test result
H <sub>1</sub>	Job satisfaction is negatively correlated with turnover intention	Not supported
H <sub>2</sub>	Affective commitment is negatively correlated with turnover intention	supported
H <sub>3</sub>	Job satisfaction is positively correlated with affective commitment	supported
H <sub>4</sub>	Affective commitment is a mediator through which job satisfaction affects the turnover intention	supported

Source: the author.

## 4.6 Chapter Summary

Through principal component analysis and factor analysis, we have explored the validity of each scale and reported the investigated items of reliability and validity in the three scales. Then, according to our hypothetical model, we used AMOS to build the appropriate model diagram, for the fitting path test of three dimension models. Based on the results of our sample, in the relations among job satisfaction, affective commitment and turnover intention of hospital senior professionals, it was found that a positive correlation exists between job satisfaction and affective commitment, while a negative correlation exists between affective commitment and turnover intention. From a theoretical point of view, this study shows that job satisfaction has no direct effect on turnover intention, and that this effect is only caused by means of the strong influence of affective commitment.

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## Chapter 5

### Discussion and Conclusion

#### 5.1 Key Findings

Through research on the status quo and analysis of the collected data of job satisfaction, affective commitment and turnover intention of senior professionals in 33 large public hospitals in Guangdong province, it was found that the value of their job satisfaction is  $3.4 \pm 0.54$ , the affective commitment value  $3.48 \pm 0.78$ , and the turnover intention  $2.57 \pm 0.77$ . We have used AMOS to analyze the structural path of the research model, carried out CFA verification on the empirical research data, verified the fitting degree of the turnover intention model, established the turnover intention equation SEM for our sample and finished theoretical and empirical research on issues related to turnover intention.

Based on the relationship between job satisfaction, affective commitment and turnover intention of senior professionals in the hospitals surveyed, the key factors of job satisfaction and affective commitment that influence turnover intention have been identified and further management strategies can be proposed. The key findings are as follows.

##### 5.1.1 Job Satisfaction, Affective Commitment and Turnover Intention Differences

This research shows there are significant differences on job satisfaction, affective commitment and turnover intention in terms of demographic variables and hospital scale. First of all, there is a significant difference on affective commitment among professionals of different levels of education. Those respondents with the highest value of affective commitment are master holders, and those with the lowest value of affective commitment are undergraduates. In this study, among staff who have a master/doctorate degree, 43.2% and 16.3% of them are job post graduates respectively. In Chinese public hospitals, the universal practice is to nurture job postgraduates, namely hospitals pay

the tuition of masters or doctors and keep their jobs, which seem to have a positive effect on the improvement of affective commitment.

In addition, significant differences exist in affective commitment and turnover intention for senior professionals with different length of service for their hospitals. Professionals with 6 to 15 years of tenure have a relatively low affective commitment, and the mean value of turnover is the highest; professionals with 5 years of experience or less have the highest level of affective commitment and the lowest level of turnover intention; professionals with 15 years of tenure or more have an average level of affective commitment and turnover intention. This shows that the key to stabilizing senior hospital professionals is to focus on workers with 6 to 15 years of tenure, providing more proper development platforms and room for them based on their organizational behavior features.

Third, job position presents a significant difference related to job satisfaction, affective commitment and turnover intention. Functional department heads have the highest affective commitment, clinical directors the second highest and medical staff without position the lowest. Interestingly, the turnover intention of senior professionals will decrease with the increase of their positions, and job satisfaction and affective commitment will increase with the ascent of positions. Besides, the difference in job satisfaction, affective commitment and turnover intention between functional department heads and clinical directors is not significant. This shows that when hospital senior professionals act as professional leaders in a hospital, owing to the pursuit of social status and reputation, as well as immersed in the operation of their daily work, they are given more management responsibilities and higher management positions, which helps to improve affective commitment and reduce turnover intention. It reflects that administrative positions and clinical directors who have administrative privileges are factors that can improve job satisfaction and affective commitment in the case of the hospital senior professionals surveyed.

In terms of hospital's characteristics, there is a significant difference on turnover intention among respondents from different sizes of hospitals. This research shows that

the larger the hospital size, the higher will be the turnover mean value of senior hospital professionals; the smaller the hospital size is, the higher their job satisfaction and affective commitment will be. In China, a hospital with more than 500 beds has the minimum threshold to become a university affiliated hospital. A hospital with more than 1,000 beds is considered to be a large-scale hospital, and a hospital with more than 2,000 beds is considered to be a super large-scale hospital.

There are several reasons leading to this difference. First, large-scale hospitals have high level of overall medical care and large regional influence therefore senior professionals in such hospitals have stronger academic recognition, professional expertise and industry reputation. The larger the hospital scale is, the higher the professional's expertise and fame will be. Due to their influence in the industry and "halo effect", senior hospital professionals have more opportunities to choose new jobs and in turn their turnover intention is higher. In large-scale hospitals, the work pressure and workload of senior hospital professionals is heavier. If their expectations cannot be met in the hospital, it will be more likely for them to find a new challenging position to suit their individual interests at a new hospital.

Moreover, most of the small-scale hospitals are located in small and medium cities. The amount of hospitals at the same level in the region is relatively small, and there are few senior hospital professionals. So it is easy for hospitals to offer high-quality resources for them, so that this group is prone to recognize the hospital organizational culture and have a high sense of affective commitment to the hospital.

Lastly, in the small-scale hospitals the ability of hospital managers is more likely to be given to full play, and senior hospital professionals can feel the atmosphere where their potential can be maximized. To live and work in a familiar environment makes it easier for senior hospital professionals to have a sense of security as well as obligations and responsibilities to continue to serve the hospital.

### **5.1.2 Job Satisfaction and Its Dimensions**

This study found that factors affecting job satisfaction of the research subjects include organizational identification, working hours and development, and intrinsic satisfaction. Intrinsic satisfaction includes four detailed contents: the current job can produce a sense of achievement, the current job can help to give full play to one's talents, the job is challenging and the job is based on one's interests. In the analysis of the influence of job satisfaction of senior professionals on their turnover intention, it is also found that the three factors of job satisfaction (organizational identification, working hours and development, and intrinsic satisfaction) all have an influence on turnover intention.

The contribution coefficients of the influence of intrinsic satisfaction, working hours and development, organizational identification on job satisfaction are respectively 0.84, 0.87, and 0.80. From the model, it is clearly seen that the three potential variables of intrinsic satisfaction, working hours and development and organizational identification can well explain the reasons behind turnover intention. For example, many doctors are not satisfied with their working hours and development. Due to the low "physician density" (the number of physician per 10,000 people), and increasing demand of healthcare services, most doctors have been overworking, particularly the large-scale hospitals and the senior medical professionals whom most patients want to access to.

### **5.1.3 Job Satisfaction, Affective Commitment and Turnover Intention**

Job satisfaction has a significantly positive correlation with affective commitment and affective commitment is negatively related with turnover intention. In turn job satisfaction does not appear to affect turnover intention directly but only through the effect of affective commitment.

The study shows that job satisfaction has a significantly positive correlation with affective commitment. The two can be seen as a whole, since the higher the satisfaction of core hospital professional is, the higher their affective commitment will be. The

higher affective commitment of the core professionals is, the higher their satisfaction will be. This is consistent with the research results of Liu and Pei (2008), which show that high job satisfaction will increase affective commitment and improve work performance. The higher the job satisfaction and affective commitment is, the lower the turnover intention will be. When the hospital is determined to increase staff stability, it must also take into account increasing their job satisfaction and affective commitment. These results are also in line with those by Ye (2005).

The standardized coefficient of affective commitment and turnover intention is -0.43. Traditionally job satisfaction and organizational commitment have been considered to be the two most important variables that influence turnover intention. In this research, affective commitment is considered to be an important mediator in the relationship between job satisfaction and turnover intention. This indicates that affective commitment can explain and predict turnover intention of hospital senior professionals of public hospitals, and Chinese hospitals should focus on increasing senior professionals' affective commitment so as to retain them.

## **5.2 Suggestions for Retention Practice**

Based on the findings of this empirical research and relevant literature, we make the following suggestions for managers to reduce turnover intention of hospital senior hospital professionals, and to help their hospitals to keep core competitiveness.

### **5.2.1 Establish a talent management system that can improve job satisfaction**

The empirical research and analysis reveal that job satisfaction of senior hospital professionals in our sample has a positive correlation with their affective commitment, and the influence of job satisfaction on turnover intention takes effect through affective commitment. The major factors affecting job satisfaction of senior professionals include intrinsic satisfaction, working hours and development and organization identification. As a matter of fact, job satisfaction and affective commitment are subjective feelings and are inseparable. According to the findings of this study,

improving job satisfaction should lead to higher affective commitment, which in turn should have significant effect on reducing turnover intention. As a result, hospitals should take into account all the influencing factors of job satisfaction to increase affective commitment and reduce turnover intention.

To reduce turnover intention of senior professionals, the hospital must build a talent management system that covers all aspects of job satisfaction and affective commitment. To increase job satisfaction, the human resource department of hospitals should not only give them sense of achievement, opportunity to use their talents, challenging work, work interest, training opportunities, vacation, and reasonable work time and overtime, but also make systematic plans in the following aspects:

(a) Establish a performance salary growth and allocation mechanism. Performance salary has an incentive effect because it is equitable and should be based on their clinical service, teaching quality and scientific research achievements (Huang, et al, 2015). Senior professionals should be assessed and awarded based on their performance. The performance should be connected with the bonus, and top-notch senior professionals and professionals at key posts should be able to perceive more performance salary. Evaluation opinions of experts outside the hospital should also be taken into account. Full autonomy of recruitment should be given to research teams, and an expert academic assessment system should be established.

It is necessary to improve assessment indicators and assessment technology, establish posts based on needs, identify salary based on positions(Tang, 2015), evaluate in a strict manner, focus on performance and distribute salary according to work. It is necessary to establish a stable senior professionals development fund security system, balance the academic articles and social economic benefits, and build up a tolerant, free and competitive academic environment. Scientific research results transformation mechanism should also be improved.

(b) Establish a welfare security system for senior professionals. A perfect welfare security system is an important embodiment of respect for talents, and is an important way to stimulate and stabilize senior professionals. In the hospital welfare system(Yuan,



2014), it is necessary to take into account gender, age, marital status and other demographic characteristics, and design different welfare terms for senior professionals with different positions and work experience. Special attention should be given to those who have 6 to 15 years of work experience but have not assumed management positions, because they have the lowest affective commitment. Welfare for the senior professionals includes special allowances, research funding, academic awards, housing subsidies, health care, paid vacation, special insurance, retirement benefits and so on. In order to retain the top-notch senior professionals for a long time, the welfare should use delayed payment. For example, the housing subsidy, paid vacation and health care should be provided, so that attraction to senior professionals will increase with the passage of time.

(c) Increase the organizational identification of senior professionals towards the hospital. The hospital should respect the hospital senior professionals, create a tolerant academic environment and harmonious hospital culture, encourage innovation, be tolerant to failure, improve the medical academic assessment system that helps respect and protect innovative thoughts, and maximize the potential and advantage of senior professionals. The hospital should clearly identify the job responsibilities of senior professionals, exclude interruptions from extra work, improve service for the senior professionals, strengthen the service awareness, improve service quality and proactively build a harmonious environment for the introduction, development and growth of senior professionals. If the senior professionals can focus on business development, and the efficiency of the team is improved, the hospital organizational identification will increase accordingly.

### **5.2.2 Improve work environment and increase affective commitment**

Research results show that the level of affective commitment is an important factor in the turnover intention of senior hospital professionals. The lower the level of affective commitment is the higher level of turnover intention will be. Public hospitals should increase the affective commitment of senior professionals in order to retain them.

Demands of non-material things have become key to the respondents enthusiasm and turnover intention. Therefore, it is especially important to create an environment that helps them to realize innovation. Factors of this type of work environment include hospital culture, subject development prospect, individual value and academic achievements, academic freedom and democratic management (Gu, 2010).

Hospitals should be committed to building a distinct cultural soft environment featuring people-oriented, equitable competition, cooperation, encouragement of innovation, creating their own brand image, establishing good social reputation, and making sure that the mission and vision of the hospital is attractive to and can be recognized by senior professionals. In recruitment, hospitals can choose employees who fully understand the vision, mission and culture of the hospital, encouraging them to combine their career development with hospital vision. The hospitals should provide clinical business sites, specialist medical equipment, research platform service resources and research team to the senior professionals so as to help them develop sense of belonging and responsibility of service to the hospital.

Individual professional development is an important issue for senior hospital professionals. The hospital itself should have a clear principle, accurate positioning, and distinctive feature. Based on the specialty analysis, position design and senior professionals training plan before hiring senior professionals, the hospital should find a connecting point between the hospital development prospect and individual career development, forming a promotion mechanism that has a lifelong incentive effect.

As technological and academic elites in the hospital, senior professionals strive to realize their individual value and academic achievements, which is the driving force of the innovation and development of hospitals. Hospitals should guide their professional pursuits to be related to the development of the hospital and create conditions, offer opportunities, make policies, and ensure offering of resources for them. As the hospital helps them to acquire academic achievements and peer recognition, they will have a stronger sense of belonging towards the hospital.

Development of senior professionals needs academic freedom and no

administrative intervention. A free academic environment is the foundation of hospital development. The hospital should be respectful and tolerant to the creative work of senior professionals. In addition, considering their unique insight on management, the hospital should encourage them to take part in academic organizations at all levels, entrust management positions to them, encourage them to take part in decision-making discussion, and give them more say in academic development and affairs management, especially in terms of recruitment of doctors, promotion of professional titles, establishment of clinical specialties and subject development plans. This move can help avoid mistakes, promote hospital development and meet their desire of reaching higher levels of management.

### **5.2.3 Career development of senior professionals and increase their sense of belonging**

Job satisfaction and affective commitment are positively correlated. Affective commitment has the highest influence weight, and the observable variables include hospital management level, sense of security, sense of belonging and a good work platform, which are necessary for the development of senior professionals. Enthusiasm and interest towards the job itself, sense of responsibility, devotion to work, and willingness to take contributions from senior professionals can exert effective and prolonged influence on job satisfaction and affective commitment. The hospital should clearly identify the standards of success of senior professionals and carry out equitable incentives. The human resources department should use a series of systems such as senior professionals recruitment, professional title appraisal, employment assessment to improve senior professionals evaluation system and encourage fair competition. To establish stable performance appraisal indicators the hospital should first standardize classification of job positions and identify job responsibilities in order to select hospital senior professionals needed by the hospital based on their performance. The hospital should value key performance evaluation, correctly evaluate the performance of employees and improve the hospital service level and organizational management.

The influence of educational level of these senior professionals on affective commitment and turnover intention was found to be significantly different. Hospital senior professionals with higher academic degree have a stronger feeling of career ceiling, their affective commitment is lower, and the mean value of their turnover intention is higher. The hospital should improve training system planning offer tailored training, increase training capital, and adopt the principle to develop senior professionals. In terms of the outstanding young professionals with great potential, the hospital should carry out all kinds of senior professionals training programs to help them develop into influential medical leaders. The hospital should also resort to authoritative international training hospitals such as the Edinburgh Royal College of Surgeons. Senior hospital professionals should be encouraged to carry out cooperative research with their counterparts at home and abroad, broaden academic horizons, enhance their academic level and form their own advantages and features.

The hospital can give awards to outstanding senior professionals, which can not only develop abilities of outstanding staff, but enhance job satisfaction. For example, the postdoctoral research station can play an important role in the talent development as a senior professionals pool. The hospital can also select staff for further study overseas, with the fees being covered by the hospital. The hospital can also encourage staff to improve their own capacity and get a master or doctor degree.

The hospital can utilize key labs, research institutes and transformation centers for senior professionals aggregation, innovation in industry-academy-research, and entrepreneurship. The hospital can also make full use of resources of the government and corporations, work with them to introduce brainpower from abroad, and constantly make innovations in the model of introduction, training and utilization of top-notch senior professionals.

#### **5.2.4 Select young and middle-aged academic backbones and encourage senior hospital professionals to assume management posts.**

The work experience of senior hospital professionals exhibited a significantly different influence on job satisfaction, affective commitment, and turnover intention.

Those respondents with 6 to 15 years of work experience have the lowest affective commitment, the affective commitment of those with more than 15 years of work experience is higher, but the turnover intention of those with 6 to 15 years of experience is the highest. Those with 6 to 15 years of work experience are at the age of 40 to 50 years old, which is the golden period of their career. At this period, they are young and energetic, master core technology and have relatively mature professional experience. This group of professionals needs sufficient room for development and work, and have the aspiration to assume more responsibilities. According to the Hierarchy of Needs Theory, if the achievement needs of senior professionals can be met, they will feel happy and satisfied. As an incentive factor, work itself can stimulate the enthusiasm of employees. The hospital should select young and middle-aged professionals, giving them due trust, providing them with a good work environment, ensuring the conditions, venue, equipment, manpower, technology and freedom needed by professionals, and designing diversified job content to make the job challenging. This can help to form a hospital atmosphere of benign competition, employees can feel that they are working in a fair, tolerant and highly independent environment.

To let senior hospital professionals assume management job posts can effectively improve the affective commitment and reduce turnover intention. Hospitals should establish a mechanism for professionals to become a member of the hospital management, paying attention to their opinions in hospital management, organizing professional forums and academic seminars, and establishing professional websites, internet networks and internal blogs for them. The hospital should organize forums and seminars for professionals and pay attention to their vocational demands; the hospital should invite them to join committees, associations and councils at all levels and encourage them to take part in the making of the direction for hospital development and its development strategy. The hospital should give these professionals a tolerant environment, and allow them to make mistakes. It should also offer a good hardware to ensure investment in new technology, high-end equipment and manpower. A special department should be established to assess the work situation of senior professionals,

and meetings should be held regularly to identify room for improvement. The senior professionals should be able to interact with hospital leaders and hospital management regularly, so that they can understand the objectives and development of the hospital. The hospital should value their feedback and suggestions, and seriously consider their thoughts.

### **5.2.5 Establish relationships with medical universities**

There is no significant difference on turnover intention and affective commitment among respondents from different ownerships of hospital. But those at university affiliated hospitals and municipal or district hospitals have the highest affective commitment and lowest turnover intention, while affective commitment of those in non-affiliated hospitals is low and their turnover intention is high. Hospitals affiliated to high-level medical universities enjoy large number of advantageous medical subjects, high-level clinical services, strong teaching teams, high-quality teaching and senior professionals development, advanced technological innovation and research levels. Affiliated hospitals can build a work environment favorable for senior professionals to fully utilize their talent. They can use the clinical, teaching, and research platforms of key disciplines and preponderant disciplines, especially the key labs, academician workstations, joint labs and multi-center research platforms.

This research shows that non-material demands of senior professionals have become the key factor affecting their enthusiasm and turnover. In the platform of high-level university affiliated hospitals, they are more likely to realize their ambition and objectives. If hospitals become university affiliated hospitals, they will have a clinical, teaching, and research platform, which are attractive elements to senior professionals. The hospital should guide them to combine their professional pursuit with the clinical discipline layout, research development and university objectives to reflect their individual value and academic achievements. Public hospitals in China have already been faced with fierce market competition, and hospital senior professionals are considered to be the driving source of sustainable competitive advantage. Whether

China's public hospitals can manage their senior professionals, help them keep high work enthusiasm and willingness to stay will be key to the success of competition between hospitals. This study discusses the influence of job satisfaction and affective commitment on turnover intention. In fact, turnover intention is an indicator to reflect the human resource management level of a hospital.

### **5.3 Major Innovations and Contributions**

This study analyzed the factors and paths that exert major impacts on the turnover intention of a sample of senior hospital professionals, aiming at contributing to make up for insufficient research on job satisfaction, affective commitment and turnover intention aimed at this particular group, and at extending the application scope of turnover intention models.

Through examining the four hypotheses laid out to explain the relationships among job satisfaction, affective commitment and turnover intention of a sample of senior hospital professionals in the Chinese province of Guangdong, this study analyzed the results, and proposed the major influencing and predictive factors of turnover intention, thus aiming to contribute to the international literature in this field.

### **5.4 Research Limitations**

This study has its limitations, and the main reasons are as follows:

1. This study uses questionnaires as a research tool. In order to reduce the difficulty in collecting questionnaires, 33 large hospitals have been selected with stratified sampling in different cities of Guangdong province. Thus, this hinders the generalizability of the findings.

2. This uses cross-sectional data, which may have the likely influences of response bias.

3. The respondents may not be able to clearly discriminate between job satisfaction items and affective commitment items and therefore the data collected may suffer from

the similarity in different dimensions.

## **5.5 Research Conclusions**

Based on a sample of 33 large hospitals in Guangdong Province, this research explored the influence of job satisfaction and affective commitment on the turnover intention of senior hospital professionals, and has carried out an in-depth analysis of the study hypotheses through theoretical and empirical research. On the basis of empirical research, a structural equation model of job satisfaction, affective commitment and turnover intention was established (Figure 4-2).

Conclusions of this research are as follows: job satisfaction has a significant correlation with affective commitment; and affective commitment is a mediator in the relationship between job satisfaction and turnover intention of the senior hospital professionals surveyed. Job satisfaction itself exerts no direct influence on turnover intention, and the influence comes through affective commitment. Tenure has significant influence on the respondents' affective commitment and turnover intention. Likewise job position of hospital senior professionals has significant different influence on their job satisfaction, affective commitment and turnover intention; and hospital size have significantly different influences on their affective commitment and turnover intention.

Overall, the research on job satisfaction, affective commitment and turnover intention of hospital senior professionals' as well as the relationships among them is a recent field of study in China. Currently, most Chinese literature remains at the level of issues related to the review or qualitative analysis of general staff in a hospital. In this thesis, conclusions drawn from the empirical analysis are expected to further enrich turnover theories, and help hospitals to better plan and manage the careers of hospital senior professionals in practice.



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## Appendices

### Questionnaire

Dear Professor/Director \_\_\_\_\_:

Thanks very much for the support and help you have given to our subject entitled “Influence of Job Satisfaction and Organizational Commitment on Turnover Intention Among Medical Talents in Hospital: An Empirical Study in Guangdong Province, China”. The present subject was initiated by Guangzhou Medical University and Guangdong Modern Hospital Management Research Institute, and subsidized by 2013 Guangdong Provincial Medical Research Fund (Subject Project No.: A2013140, Yue Wei [2013] No. 33). The present research is aimed at analyzing the job satisfaction and organizational behaviors of medical talents in public hospitals in Guangdong Province, China, so as to provide basis for improving hospital high-level human resource management.

The subject group hopes to get your help in the form of questionnaire survey in the stage of data collection. Each questionnaire consists of 4 pages. After completing the questionnaire, please put it back in the envelope provided by us and send it back to our subject group. Address: The Third Affiliated Hospital of Guangzhou Medical University, No. 63, Duobao Road, Liwan District, Guangzhou City, Guangdong Province. Recipient: Xu Xuehu (Zip Code: 510150).

Thanks very much for your help! If you have any questions, please feel free to contact Mr. Zhang Qiwei.

“Influence of Job Satisfaction and Organizational Commitment on Turnover Intention  
Among Core Medical Talents in Hospital: An Empirical Study in Guangdong  
Province, China” Subject Group  
The Third Affiliated Hospital of Guangzhou Medical University: Zhang Qiwei  
Tel: 13760605006 Email: zhang\_qi\_wei@163.com

**“Influence of Job Satisfaction and Organizational Commitment on Turnover Intention Among Core Medical Talents in Hospital” Questionnaire**

Dear Professor:

The present research is jointly designed by personnel from Guangzhou Medical University and Guangdong Modern Hospital Management Research Institute with the aim of analyzing the job satisfaction and organizational behaviors of medical talents in public hospitals in Guangdong Province, China, so as to provide basis for improving hospital high-level human resource management.

The present survey will be conducted anonymously. The research results will only demonstrate the general situation of the group and organization. The data collected will be used for the purpose of research only. All materials will be kept strictly confidential. Your answers will not pose any adverse influence on you. Please rest reassured to answer these questions. The information given by you will be of great significance to both our research and the improvement of hospital management.

Thanks very much for your cooperation! If you wish to be informed of research results, or if you have any suggestions or doubt, please contact the subject group through the following means.

Contact person: Zhang Qiwei

Tel: 13760605006 Email: zhangqiwei@163.com

Note: There are no standard answers to all the questions in this questionnaire. Please read carefully and answer in accordance with your own situation. Thanks for your support and cooperation.

Gender:  Male  Female      Marital Status:  Unmarried  Married  Divorced

**Part 1: Please highlight your answers if you are filling in an electronic version of this questionnaire**

**1. In your opinion, to what extent does your hospital focus on talent?**

Very low  low  normal  high  very high

**2. Number of Beds:**

Less than 500     501-1000     1001-1500     1501-2000     More than 2000

**3. Nature of Hospital:**

- Hospital directly affiliated to colleges and universities
- Hospital non-directly affiliated to colleges and universities
- Provincial Hospital     Municipal Hospital     District Hospital
- Township Hospital

**4. Your Education Background**

- High school / technical secondary school graduates or below
- Junior college / higher vocational college graduates
- Undergraduate with bachelor degree
- Undergraduate with master degree
- Undergraduate with PhD degree
- Graduate with master degree
- Graduate with PhD degree

**5. Your Identity (You may choose more than one options)**

- National Key Discipline (Laboratory) Director
- Discipline leader  Department director  Professor
- Chief editor of textbooks for specialized disciplines / associate editor
- National / Provincial / Municipal Academic Committee (Deputy) Director
- National / Provincial / Municipal science and technology award winner
- Research fellow of national / provincial/ departmental science research subjects

**6. What is your current position?**

- Hospital leader  Director in administrative and managerial division
- Staff in administrative and management divisions
- Medical technician  Doctor  Nurse  Logistics personnel

**7. Length of service in your current position**

- Less than 2 years  2-5 years  6-10 years
- 11-15 years  more than 15 years

**8. What is the management style of your current hospital in your view (You may choose than one option)?**

- Progressive  Conservative  Democratic  Centralized  Other \_\_\_\_\_

**9. Which of the following factors do you think pose the greatest influence on your enthusiasm in work? (Please choose three options)**

- Higher salary  More pleasant work  Sound interpersonal relationships
- Opportunity to learn  Promotion and development opportunity
- Sound employee benefits  Job stability  Respect from superiors and peers  Sound working environment  Others \_\_\_\_\_

**10. Possible reasons for you to leave the hospital (Please choose three options)**

- Respect and recognition from hospital leaders and colleagues
- Family (marriage)  Opportunities for further education
- Bad working conditions and high work intensity  disordered management
- Inharmonious interpersonal relationships  Fair and reasonable motivation system  Better prospects in other hospitals  Unchallenging job responsibilities
- Others \_\_\_\_\_

**11. How many people do you think leave the hospital because of the changes of marital status?**

- A large number  Some  Hard to tell  A small number, maybe none

**12. Do you think family factors will influence the work performance of those with turnover intention?**

- Yes    No    I don't know

**13. Do you think the job will impose a negative influence on the family harmony of those with turnover intention?**

- Yes    No    I don't know

**14. Have you changed employer in the past 5 years?**

- Yes (more than 3 times)    Yes (once or twice)    No

**Part 2:** Please score according to your approval degree, with “1” representing “strongly disagree or extremely bad situation”, “5” representing “strongly agree or extremely good situations” and the degree of approval increases gradually from 1 to 5. Please select the appropriate number.

Items for Evaluation		1	2	3	4	5
1	Sense of security of current work environment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	Leadership management style of the current hospital	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	Sense of accomplishment from current job responsibilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	Hospital resources for the completion of current work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	Payment level	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	Delegation of power from your superiors in daily work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	Attention paid from the management to employees cultivation and development	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

8	Full play has been given to your talent in the current work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9	Satisfaction over housing fund by the hospital	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10	Current job responsibility is significant and challenging	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11	Employees' collective activities and facilities initiated by the hospital	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12	Career prospect in the current hospital	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13	Fairness of promotion opportunities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14	Your current job matches your personal interest	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15	Hospital provides the employees with training opportunities for future promotion and further development	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16	The salary system of the current hospital is fair and reasonable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17	Hospital gives full support to further education and development of employees	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18	Subsistence allowances (including work lunch and daily commute expense)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19	Level of autonomy in your current job responsibilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20	Execution of annual leave	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21	Hospital's performance in promoting skilled talents	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22	Satisfaction over hospital infrastructure and facilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23	Superior's trust in your work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24	Satisfaction over the office conditions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

25	Level of clarity of job descriptions from your direct superior	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
26	Level of acceptance of employees' advice	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
27	Salary compared with the same position in hospitals of the similar level in the same region	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
28	Encouragement and incentives by the employer to accomplishments made by the employees	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Items for Evaluation</b>		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
29	Coordination and share of information among different departments in the hospital	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
30	The division of power and responsibilities in the current organizational structure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
31	Hospital culture building	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
32	System of rewards and punishment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
33	Long-term development direction and positioning of the hospital	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
34	Employees' sense of honor and pride in the non-working circumstances	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
35	Ranking of the hospital in the industry	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
36	In my workplace, people give open and sincere suggestions to each other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
37	Current workload	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
38	Effective communication can be applied to deal with unreasonable situations.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
39	Fulfillment of promise by hospital leaders	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

40	Support from colleagues in difficulty	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
41	Detailed and institutional work plan available in hospital operation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
42	Reputation of the hospital in the eyes of employees	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
43	Hospital management monitoring in work and decision-making involving risks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
44	Teamwork and partnership in your current organization	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
45	You believe the current hospital's work time arrangement is reasonable?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
46	People-oriented management in your current organization	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
47	Participation in decision-making of issues concerning hospital management and development	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
48	Employees' integration into and recognition of the organization	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
49	Organizational efficiency	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
50	Internal communication system (e.g. regular management-staff meeting)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
51	Execution of flexible working hours in current work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
52	Operating philosophy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
53	Overtime work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
54	Proficiency of diagnosis and treatment of the medical personnel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
55	Communication between the medical personnel and patients	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
56	Trust of patients in diagnosis and treatment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



**Part 3:** Please score according to your approval degree with “1” representing “strongly disagree or extremely bad situations”, “5” representing “strongly agree or extremely good situations” and the degree of approval increases gradually from 1 to 5. Please select the appropriate number.

Items for Evaluation		1 (strongly disagree)	2	3	4	5 (strongly agree)
1	I always tell my friends that I am working in an ideal workplace.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	The hospital has a bright future and it is a smart choice to keep working here.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	Other hospitals promise better prospects for me, but I feel obliged to continue my job here	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	I stay here because it is my responsibility as a member of it.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	I think I have an outlook and values similar to those of the hospital.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	I stay in the current workplace because I cannot find anything better.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	I am well supported and respected here and once I go to a new place, I am just a rookie.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	I have confidence in the management and believe it advantageous to stay here.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9	I am familiar with the life and atmosphere here, which gives me a sense of security.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10	I feel lucky to have chosen the current workplace.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11	I am willing to do anything in order to keep working here.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

12	I stay in this workplace for its good benefits.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13	This workplace unleashes my potentials to the fullest, which enables me to achieve the best possible performances.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14	Full play is given to my aptitude and I can work with high proficiency.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15	It is imperative that employees fulfill their obligations in order to enjoy the benefits.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Part 4:** Please score according to your approval degree with “1” representing “strongly disagree or extremely bad situations”, “5” representing “strongly agree or extremely good situations” and the degree of approval increases gradually from 1 to 5. Please select the appropriate number.

Items for Evaluation		1 (very unlikely)	2	3 (unsure)	4	5 (very sure)
1	Will you leave the current workplace once you find a better job opportunity?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	What is the possibility for you to secure an appropriate job in another institution based on your current condition?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	Do you often talk about the intention of leaving the current workplace?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	Will you look for a new job opportunity or another workplace in the next 6 or 12 months?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	Do you plan to work in the current workplace for a long time for better personal development?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

6	Is it certain that you will leave the current workplace and seek for new employment opportunities and a new workplace in the future?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	Considering the competition and pressure, will you choose to work in an organization which houses a large number of talented and skilled personnel?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	Considering the competition and pressure, will you choose to work in an area with a robust economy and huge talent pool?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9	Will you choose to work for an organization with strong competency in attracting and retaining talents?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Thanks for your attention!**