JOB SATISFACTION AMONG MEDICAL DOCTORS IN WEIFANG PEOPLE'S HOSPITAL IN CHINA

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ABSTRACT

A descriptive cross-sectional study was conducted on job satisfaction among medical doctors in Weifang People's Hospital in China with the aim of identifying the socio-demographic factors, job characteristic factors and attitude and opinion which influence the job satisfaction.

The sustainable development of medical health services depends on more highly qualified, satisfied and more highly stable team of medical doctors. This research was conducted in Weifang Peoples' Hospital in China in order to understand the level of job satisfaction among medical doctors, to detect the main influence on job satisfaction, to identify the existing problems and put forward some pertinent countermeasures to improve the level of job satisfaction based on these findings. The study revealed that pediatricians were the group with the lowest level of job satisfaction at the "satisfactory" level while doctors in the department of traditional Chinese medicine had the highest level. Five factors were found to influence job satisfaction: working condition of the hospital, approval of achievement, ownership and identification with the hospital, the harmonious relationship, and welfare.

About 54 percent of the respondents intended leaving the hospital. The medical doctors who had a high education had the strongest intention to leave. The key factors affecting the medical doctors to engender the intention of leaving hospital were: job satisfaction, the equity of remuneration, promotion, environment for medical practice, welfare and the opportunity to fully use their skills. This study should be used as the input to adjust the management to monitor the satisfaction of working staff.

KEY WORDS: JOB SATISFACTION, WORKING CONDITION, ENVIRONMENT FOR MEDICAL PRACTICE

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LIST OF ABBREVIATIONS

AIHD : ASEAN Institute for Health Development.

MPHM : Master of Primary Health Care Management.

WHO : World Health Organization.

NHS : National Health Service.

CHS : Community Health Service.

SWB : Short Wheelbase.

SD : Standard Deviation.

CHAPTER 1
INTRODUCTION

1.1 Rationale and Justification

1.1.1 The transition of job satisfaction among medical doctors in the world

Job satisfaction is the medical doctor's joyfulness or positive emotion state that comes from the evaluation of individual work or experience (1). This has aroused the attention from people once the conception coming out, mainly because it is correlated notably with worker's achievement, loss rate, etc. At the same time an item of investigations of Harvard University shows: Staff's satisfaction is raised by 3 percentage points each time, customer satisfaction improves correspondingly by 5 percentage points (2).

The doctor's job satisfaction and morale have also caused the extensive concern in other countries in recent years (2). "Britain medical magazine" published a comment article entitled as "why are doctors so unhappy" in May 2001. Doctors are unhappy. They are not all unhappy all the time, but when medical doctors gather, their conversation turns to misery and talk of early retirement. The unhappiness has been illustrated in a plethora of surveys and manifests itself in talk of a mass resignation by general practitioners from the NHS. The British government is rattled by the unhappiness of doctors, recognizing that a health service staffed by demoralized medical doctors cannot flourish. It has responded by trying to hand more control of the service to frontline staff. But is this the right treatment? Treatment must, of course, follow diagnosis, and the causes of medical doctors' unhappiness may be many and deep (3).

The article causes the strong response of the medical doctors from all parts of the world. An international investigation was carried out shortly afterwards, the result indicated that a medical doctor unhappy had already become a comparatively

general phenomenon. Trace it to its cause, it is mainly that various countries are carrying out the health system reform at present, and the autonomy of medical doctor is diminished constantly, the born responsibility is increasing constantly, the medical doctor's position of standing high above the masses has been challenged by the idea of regarding "patients as the centre", and that they received the continuing education lags behind relatively, making the psychology among the medical doctors produce the serious one out-of-balance. Thus most people have produced such worry easily: as to the thing that such an unhappy medical doctor's team, how to be thriving and prosperous?

1.1.2 The present situation of job satisfaction among medical doctors in China

An investigation that Chinese doctor's association announced on first Chinese doctor's forum in 2002 shows, 60.63% of the doctors are discontented with their own present environment for medical practice (4). At the same time, dissatisfaction both sides of doctors and patients become the crucial point of problem that hardly be solved at present. Research has indicated already that the environment for medical practice, relationship between doctors and patients are the important factor of influencing Community Health Services (CHS) such as psychology concern in terms of stability among the workers (5). The recommendation, regarding the concept of "center for patient" has been making great efforts improve patient's satisfaction, while improve the service quality. However, the issue should pay close attention to services provider's satisfaction and morale simultaneously?

Other countries' studies related to medical worker's for job satisfaction research shows that medical doctors with high job satisfaction are more likely to offer kind health services than medical doctors with low satisfaction (6-8). The existence of a direct relation between medical worker job satisfaction and patient satisfaction are mentioned. Medical doctors with high satisfaction might encourage patients to produce good results (9). This will help patient comprehensive satisfaction improvement and reduction of costs for the hospital. Thus make the hospital stay in the advantageous position in competitiveness, medical market share and profit rate (10). In addition, the modern enterprise should expand the incentive mechanism of

"regarding profit as the centre" to the double management objectives with "centre for person and high satisfaction". One should regard improving the medical worker satisfaction as one of the management objectives in the field of health, and pay close attention to research work in this aspect, this is the requirement of management and improvement, and trend of management with "centre for person", it is a requirement of the competition too.

Relevant documents are reviewed indicated the results that there are few investigations of medical doctor's job satisfaction and stability in the fields of Chinese health services. China is carrying out the health system reform at present, relevant researches indicated that the medical doctor is discontented with their own present environment for medical practice, and a high level of satisfaction of medical doctor's team is an important guarantee for improving quality of service, raising patient satisfaction, improving competitiveness, guaranteeing for health industry sustainable development. So this study should strengthen researches on medical doctors' job satisfaction, including socio-demographic factors, job characteristics factors and attitude and opinion, furthermore to detect the key factors to influence the job satisfaction and will become the fruitful input for health system development and improve the quality of services and also benefit to the quality of life of Chinese patients too. Thus, this research has very important realistic meaning to perfect a team of medical doctors, to improve the hospital development and even for other hospitals in different areas in China.

1.2 Research question

The main aim of this study is to answer the following question:

(1) What is the degree of job satisfaction among medical doctors in Weifang people's hospital in China?

(2) What are the key influential factors for job satisfaction among medical doctors in Weifang people's hospital in China?

1.3 Research objectives

1.3.1 General objective

To determine the job satisfaction among medical doctors, under health system reform period in Weifang people's hospital in China.

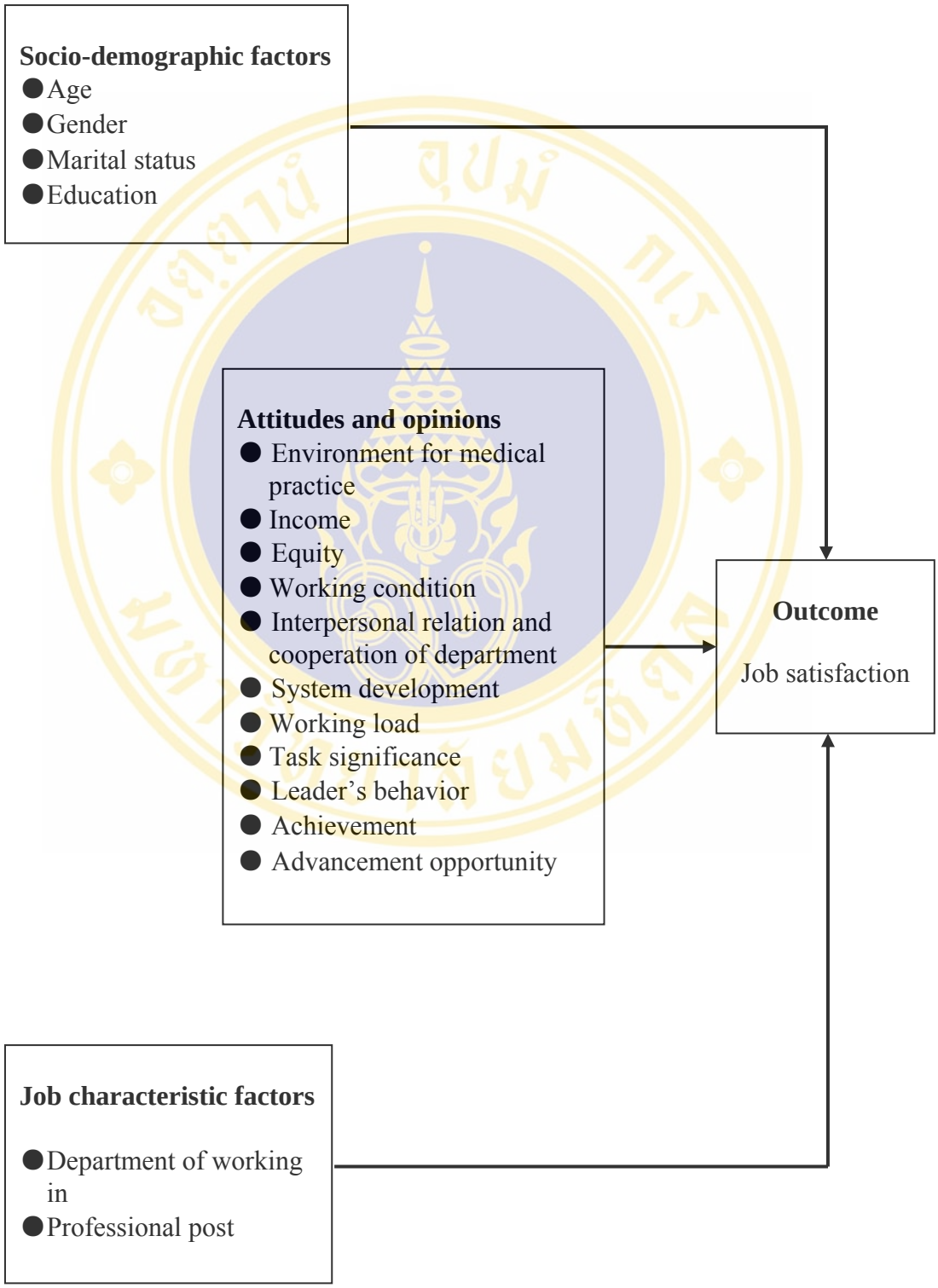
1.3.2 Specific objectives

(1) To explore the degree of job satisfaction among medical doctors in Weifang people's hospital in China.

(2) To assess the relationship between the:

a. Socio-demographic factors and job satisfaction among medical doctors in Weifang people's hospital in China.
b. Job characteristic factors and job satisfaction among medical doctors in Weifang people's hospital in China.
c. Attitudes and opinions toward influential factors and job satisfaction among medical doctors in Weifang people's hospital in China.

1.4 Conceptual Framework



1.5 Research hypotheses

(1) There is a relationship between the socio-demographic factors and medical doctors' job satisfaction.

(2) There is a relationship between the job characteristic factors and medical doctors' job satisfaction.

(3) There is a relationship between attitudes and opinions and medical doctors' job satisfaction.

1.6 Operational Definition

1.6.1 Job satisfaction

Job satisfaction is the medical doctor joyfulness or positive emotion state that comes from the evaluation of individual work or experience (1). In fact, job satisfaction is an individual overall evaluation for their work environment, work itself, treatment, recognization, advancement and so on. The quality, state, or level of satisfaction is a result of various interests and attitudes of a medical doctor toward his/her job. In hospital, it is correlated notably with medical doctor's achievement, quality of services, loss rate, and patient satisfaction etc.

In questionnaire we asked for respondents as following: Overall, do you feel satisfied with your current job?

1.6.2 Socio-Demographic Factors

Socio-demographic factors that may influence the level of the job satisfaction among medical doctors are as followings:

Age: The age of the medical doctors at present.

Gender: Whether the doctor is male or female.

Marital status: Whether the doctor is, single, married, divorced and widowed currently.

Education: The education level of medical doctors in Weifang people's hospital who graduate the last level of medical school, there are five categories that the medical doctors received the educational level was divided into from low to high. These are secondary specialized school, junior college, undergraduate, M.D. bachelor and master and above.

1.6.3 Job characteristic factors

It means the job characteristic of medical doctors works consist of two aspects by measuring.

Department of working in: The department where the medical doctor is working in at present.

The department of medical doctor working in redistribute into nine departments which according to the property of their work in order that convenience for respondents to fill up and the sort of data and analysis by investigator. They are internal medicine, surgery, obstetrics and gynaecology, pediatrics, prevention and health care, birth control, medical technology, traditional Chinese medicine and others, in which, the others including department of communicable disease, dental psychology consultation and so on.

Professional post: What is the professional post of medical doctor in Weifang people's hospital in China?

The professional post of medical doctors in Weifang people's hospital are divided into five grades, they are respectively assistant doctor, resident doctor, attending doctor, deputy director doctor and director doctor.

1.6.4 Attitudes and opinions

It means a doctor's mental set, feeling toward factors that influence his/her job satisfaction. Attitudes and opinions toward their current job will be asked for medical doctors as respondents in Weifang people's hospital in China about their work. In this study eleven aspects that included 27-items of attitudes and opinions by self-administered questionnaire are asked for medical doctors

Environment for medical practice: It is defined as the social environment in which medical doctor works, such as policies, social attitude to being a medical doctor. Respondent will be asked his/her attitude towards this environment in general, whether it's good for medical doctor to continue to be a doctor. Also the doctor will be asked the attitude towards the general relationship between medical doctors and patients at present.

Income: Attitude toward payment and welfare the medical doctor obtains from the hospital.

Equity: Attitude towards the equity and fairness of remuneration distribution regulation and the promotion of professional post.

System development: Attitude of medical doctor towards employing mechanism of the hospital, to stipulation of work break and system development and safety management.

Leader's behavior: Whether medical doctor is respected and cared, and his/her achievement is approved by leaders. What is the overall impression to leaders in the hospital?

Working condition: Working condition means the condition which medical doctor works in at present. Medical doctors were asked their opinion towards the condition, whether they are satisfied or not.

Achievement: The achievement that the doctor had in his work. It is asked whether his/her work approved by his leaders, whether satisfied with the achievement, his position in society, skills improvement, implementation one's ability fully and their quality of services.

Interpersonal relation and cooperation: Those include the meanings of professional interaction of medical doctor with colleague at the work setting, the collective cohesion among member in the department and have the sense of ownership and identify oneself with their hospital.

Chance of promotion: The chance of professional advancement in higher position, receiving the higher challenge of your work and increasing knowledge, skill and working experience.

Task significance: Whether the respondent feels that job has a substantial impact on the lives of other people both in the internal (working in organization) and the external environment. To measure the opinion of doctor to his/her current job how important it is.

Working load: How heavy the medical doctors' working load is. It is measured through the attitude of medical doctor towards his/her daily working load.

1.7 Expected outcome

In China, income, social position, advancement opportunities and job security etc. of the medical doctors are factors influence doctors' job satisfaction. Even though, policies reform may have some positive effect, we expect that the satisfaction among the medical doctors are in general and it is related with socio-demographic factors, job characteristic factors and attitudes and opinions. The expectations of this study are outcome as followings:

(1) To understand the actuality of job satisfaction among medical doctors in public hospital when in an innovation process of health system in China.

(2) To explore mainly factors and process which formation to influence about job satisfaction among medical doctors.

(3) To address the countermeasures and measures to improve job satisfaction among medical doctors in public hospital.

CHAPTER 2
LITARATURE REVIEW

2.1 Herzberg's theory

In the late 1950s, Frederick Herzberg, an US clinical psychologist, first published his hygiene motivation theory in “The motivation to work”, considered by many to be a pioneer in motivation theory, interviewed a group of employees to find out what made them satisfied and dissatisfied on the job. He asked the employees essentially two sets of questions:

Think of a time when you felt especially good about your job. Why did you feel that way?

Think of a time when you felt especially bad about your job. Why did you feel that way?

From these interviews Herzberg went on to develop his theory that there are two dimensions to job satisfaction: “motivation” and “hygiene”. Hygiene issues, according to Herzberg, cannot motivate employees but can minimize dissatisfaction, if handled properly. In other words, they can only dissatisfy if they are absent or mishandled. Hygiene topics include organization policies, supervision, salary, interpersonal relations and working conditions. They are issues related to the employee's environment. Motivators, on the other hand, create satisfaction by fulfilling individuals' needs for meaning and personal growth. They are issues such as achievement, recognition, the work itself, responsibility and advancement. Once the hygiene areas are addressed, said Herzberg, the motivators will promote job satisfaction and encourage production (11).

J. Michael Syptak et al. in his study “Job satisfaction putting theory into practice” to apply Herzberg's theory to real-world practice, begins with the hygiene issues. Although hygiene issues are not the source of satisfaction, these issues must be

dealt with first to create an environment in which employee satisfaction and motivation are even possible (8).

2.2 Job satisfaction

Job satisfaction is either contentment or discontentment that employees feel for a job (1). Job dissatisfaction, however, means that employees do not obtain a feeling of enjoyment or satisfaction; rather, they have a feeling of weariness, unwillingness, and avoidance (2). Modern management theorists accept that the two objectives of management are to increase the efficiency of services and to ensure the satisfaction of employees (3). Dissatisfaction is an important concern because it is a source of unhappiness, which can affect the productivity of an organization. Previous studies have shown that the satisfaction employees gain from their jobs, happiness related to their working lives, attitudes and behaviors associated with general life, and their relations with other people affect their physical health negatively or positively (5,6).

Physician career satisfaction and morale has received great attention recently. There are reasons for this attention. First, physicians who are satisfied with their careers are likely to provide better health care than dissatisfied physicians. Physician satisfaction has been found to strongly correlate with patient satisfaction. Second, high physician satisfaction is also likely to result from good outcomes with patients. Satisfaction, therefore, maybe an indirect measure of patient outcomes. Dissatisfaction is also of concern. First, an important factor in maintaining a high quality of medical care for all Americans at low cost is achieving a balance in the specialty mix of physicians. Current dissatisfaction may forecast future declines in numbers of practitioners within a specialty. Second, dissatisfaction, if prolonged, may result in health problems for the physicians themselves. Third, dissatisfied physicians may be more inclined to unionize and strike (8).

The factors that generally influence job satisfaction level are mode of

management, working condition, work itself, working load, interpersonal relation, communications, participation in decisions, coordination, remuneration and promotion. In the foremost elements affecting the degree of success comes from human. People have psychological needs that must be met if they are to be happy with their lives (9).

In every business or industry, research has overwhelmingly found employee satisfaction to be the undisputed keystone to increasing revenue. Healthcare is no different, An organization's morale is directly related to employee satisfaction, which is tied to individual performance that drives group productivity This leads to overall patient satisfaction and helps reduce costs, increase productive suggestions, and foster differentiating service and a safer environment (10).

Huey-Ming Tzeng at al. in their research showed: This exploratory study examined the path model linking staff nurses' strength of culture, to staff nurses' job satisfaction, to inpatient satisfaction with home care, to inpatient satisfaction with nursing care. The results of simple regression analyses supported the hypotheses in the conceptual model, where (i) the nurses' perceptions of strength of organizational culture predicted the level of nurses' perception of job satisfaction; (ii) job satisfaction predicted the level of inpatient satisfaction with home care; and (iii) the level of inpatient satisfaction with home care predicted the level of general inpatient satisfaction with nursing care (12). Nurses' job satisfaction, patient education, and general inpatient satisfaction with nursing care have been identified in the Nursing Report Card for Acute Care (American Nurses Association, 1995) as important nursing quality outcome indicators (13).

The principal objective in applications such as quality control systems, recommendation systems, management by objectives, total performance management, and total quality management are to improve performance by increasing the roles of employees. All of these efforts are aimed at increasing the participation of employees (14). The power of those in an organization is not sufficient by itself but along with it

there should be ambition to labor effectively. The formation of ambition depends on the management's success in incorporating employee interests and requirements with the organization's aims as a whole. Consequently, to gain maximum output from an employee, a manager or administrator also has to provide the opportunity for the employee to make a maximum contribution (15).

Job satisfaction is a concept that behavioral scientists have emphasized in recent years. It has an important impact on organizational effectiveness and efficiency. To achieve high organizational effectiveness, individual and organizational needs must be met. To achieve efficiency in an organization, it is necessary to set a balance between individual and organizational goals (16). Willing workers, acceptance of organizational goals, and low turnover rate make positive contributions to organizational effectiveness (17). If organizations want high job satisfaction and efficiency, they must improve the organizational commitment among their personnel. In recent years, managers have faced pressures to increase organizational motivation and efficiency because of growing international competition, low efficiency, and high turnover rates (18).

Newman K et al in their article to address the finding is the degree of job satisfaction is the key to retention, turnover and leaving rates in trusts, nursing and the NHS. Nurse satisfaction is a complex and multifaceted construction of subjective and objective factors like the nature and level of autonomy, authority and responsibility, recognition, reward and personal satisfaction with job content and, prospects for career development. However, effective patient care is fundamental to nurse satisfaction (19).

Douglas, et al in their study to address for the ten satisfaction facets, general internists were most satisfied with relationships with patients and least satisfied with income, personal time, and administrative duties. When compared with other specialties, general internists were less satisfied than were internal medicine subspecialists in their relationships with colleagues and in-patient care issues ($P<0.01$

for both) and less satisfied than were Family physicians with community ties and income (P=0.001 and P<0.05, respectively). For global satisfaction measurements, general internists were the least satisfied with their job, career, and specialty. Most of these differences in the global satisfaction measures (0.2-0.5 on a 5-point Likert scale) were believed to be clinically and statistically meaningful (20).

2.3 Socio-demographic factors

Age: Haas et al found that younger physicians had lower satisfaction than middle-aged physicians (7). Huey-Ming Tzeng, et al found a positive correlation between job satisfaction level, older age, and more working years (12). The same finding was reported by Finn C.P. (13). Another study that found a positive correlation between older age and high job satisfaction level was by Meeks A. (16) In their study, however, this relationship was not statistically significant. In that study, satisfaction level was highest among the nurses 24 to 30 years old. This finding can be explained by the reality of adaptation to the job and decreasing alternatives to finding a new job. Especially in the Turkish Military Forces, there is no expectation for promotion, and these low career prospects might be the main reason for the lower job satisfaction level of the relatively young nurses (17).

Douglas, et al with the multivariate regression analysis for correlates of satisfaction in GIM received this finding: After controlling for age, gender, practice setting, work hours, income, time pressure, and percentage of patients with complex psychosocial problems, older general internists were more likely to be satisfied than were younger general internists in seven of ten facets of satisfaction and two global satisfaction scales (20).

Gender: There are several possible sources of variation in physician satisfaction. Studies have looked at demographic factors. John O'Malley et a1 found that women had a 60% greater chance than men of reporting "burnout." At the same

time they have found that women physicians were generally satisfied with their careers (10).

Douglas, et al found there were no gender differences in global satisfaction for general internists. However, analysis by gender and age showed that older male general internists were more satisfied than younger male general internists with their jobs and career. Interestingly, the opposite was seen for women: younger female general internists were more satisfied with their jobs than older female general internists (20).

Education: Results for foreign medical school graduates are strong and consistent; they are much less likely to report being very satisfied and much more likely to report being dissatisfied than US graduates. These results are consistent with the reported high rates of attrition among foreign medical school graduates in US residency programs, the reported clash of cultures between immigrants and US citizens, and possible discrimination (2).

Although there was no statistically significant difference among the nurses in terms of schools, the general satisfaction level of the nurses who had graduated from the Military Nursing School was higher than that of the nurses who had graduated from Military Medical Academy Nursing College (14).

2.4 Factors related of job

Salary: The old adage "you get what you pay for" tends to be true when it comes to staff members. Salary is not a motivator for employees, but they do want to be paid fairly. If individuals believe they are not compensated well, they will be unhappy working for employer (3). Income has been a strong element prompting militancy. However, reasons for job dissatisfaction within the medical profession range far wider than money (21).

The results of Huey-Ming Tzeng in his study showed that the nurses were most dissatisfied with their wages. This finding suggests that some measures should be taken to increase wages to make nurses more satisfied with their jobs. Current promotion possibilities are also a source of dissatisfaction. Changing promotion procedure for nurses, even if they are soldiers, might make nurses more satisfied (12). The general satisfaction level of nurses working as can be seen, the category that the nurses are most dissatisfied with is wages. This finding suggests that the wages of the nurses must be increased to make them more satisfied (14). However, most empirical studies do not find that higher wages lead to more job satisfaction. Zhang Mian, et al. in their paper to argue that the insignificant effect of wages on job satisfaction is due to preference drift. They adapt the standard ordered response model to allow for preference shifts. The empirical results support the hypothesis of preference drift in job satisfaction (20).

Specialty: Specialties that are consistently at the extremes and consistently statistically different from all specialties combined ($P<0.05$) are geriatric internal medicine, dermatology, pediatrics, internal medicine, and obstetrics-gynecology and so on (2).

The distribution of satisfaction need not be uniform for any given specialty. The distribution might be bimodal. Orthopedic surgery is above the mean for both "very satisfied" and "dissatisfied." This suggests that orthopedists are sharply divided. However, the distribution might be bell shaped, with few responses at the extremes. Specialists within physical medicine and rehabilitation are less likely than other physicians to be "satisfied" but also less likely to be "dissatisfied." This suggests that few specialists in physical medicine have extreme sentiments regarding career satisfaction (8).

Work itself: Perhaps most important to employee motivation is helping individuals believe that the work they are doing is important and that their tasks are meaningful. Emphasize that their contributions to the practice result in positive

outcomes and good health care for your patients. Share stories of success about how an employee's actions made a real difference in the life of a patient, or in making a process better (6). Make a big deal out of meaningful tasks that may have become ordinary, such as new-baby visits. Of course employees may not find all their tasks interesting or rewarding, but should show the employee how those tasks are essential to the overall processes that make the practice succeed. One may find certain tasks that are truly unnecessary and can be eliminated or streamlined, resulting in greater efficiency and satisfaction (9).

Interpersonal relations: The changes in relationships with patients and society are particularly important. There has been a decline in deference for all professions and a perceived loss of trust, coinciding with a feeling that the media has become much more hostile. In fact doctors are a highly trusted profession, and the proportion of negative news stories is fairly constant-although the total number of stories has increased (3).

Remember that part of the satisfaction of being employed is the social contact it brings; so allow employees a reasonable amount of time for socialization (e.g., over lunch, during breaks, between patients). This will help them develop a sense of camaraderie and teamwork (6). At the same time, you should crack down on rudeness, inappropriate behavior and offensive comments. If an individual continues to be disruptive, take charge of the situation, perhaps by dismissing him or her from the practice (8).

Categories that provide high levels of job satisfaction include the job itself and relationship with co-workers. Previous studies showed that the majority of nurses did not choose to be nurses willingly. The majority chose to be nurses because of their socio-economic conditions (13).

There's also a lack of cooperation and lack of understanding from the medical side. Some of them just do not understand what the nurse's role is. One thinks

that sometimes the nurses themselves don't understand-that's the whole trouble. There are problems delegating work (22).

Administrative policies: An organization's policies can be a great source of frustration for employees if the policies are unclear or unnecessary or if not everyone is required to follow them. Although employees will never feel a great sense of motivation or satisfaction due to your policies, manager or planner can decrease dissatisfaction in this area by making sure policies are fair and apply equally to all. Also, make printed copies of policies-and-procedures manual easily accessible to all members of your staff. If manager or planner do not have a written manual, create one, soliciting staff input along the way. If manager or planner already has a manual, consider updating it (again, with staff input). Might also compare the policies to those of similar practices and ask oneself whether particular policies are unreasonably strict or whether some penalties are too harsh (8).

Poor management: Criticism of management was a pervasive and corrosive feature of job dissatisfaction at all levels. For most of the nurses interviewed, concern with poor management was focused mainly outside the ward arena, on middle and senior trust management behavior, attitudes, policies and systems. A variety of factors were cited that could be loosely classified into institutional bureaucracy, human resource management and management style, which was perceived as being uncaring, remote and highly demanding and unsupportive (19).

Alfonso S.P. et al. in his article that name is “Well-being at work: a cross-national analysis of levels and determinants of job satisfaction” to address: In management, it is argued that satisfied workers should have higher performance. Although a direct link with organizational performance, and thus economic performance, has yet to be established, an indirect link can be ascertained. It has been shown that low satisfaction leads to higher absenteeism and labor turnover rates (further examples of how SWB measures correlate with observable phenomena). These are two factors that represent considerable expenses to organizations and,

consequently, to society. In reversing the causality, did find that high organizational performance is related to high satisfaction. They argue that it is high performance and the results of high performance such as prestige, bonuses, and good evaluations that cause high satisfaction levels (22).

Working conditions: One of job dissatisfaction category is working environment and conditions, it is very important and common. This finding is a common one in studies conducted in Turkish hospitals. Managers and planners should make it a priority to improve the working environment and conditions, and additional resources must be found (14).

The environment in which people work has a tremendous effect on their level of pride for themselves and for the work they are doing. Do everything can to keep one's equipment and facilities up to date. Even a nice chair can make a world of difference to an individual's psyche (16). Also, if possible, avoid overcrowding and allow each employee his or her own personal space, whether it is a desk, a locker, or even just a drawer. If employer has placed the employees in close quarters with little or no personal space, don't be surprised that there is tension among them (17).

Responsibility: Employees will be more motivated to do their jobs well if they have ownership of their work. This requires giving employees enough freedom and power to carry out their tasks so that they feel they "own" the result (8). As individuals mature in their jobs, provide opportunities for added responsibility. Be careful, however, that do not simply add more work. Instead, find ways to add challenging and meaningful work, perhaps giving the employee greater freedom and authority as well (12).

Advancement: Reward loyalty and performance with advancement. If employer does not have an open position to which to promote a valuable employee, consider giving him or her a new title that reflects the level of work he or she has achieved. When feasible, support employees by allowing them to pursue further

education, which will make them more valuable to practice and more fulfilled professionally (8).

Recognition: Individuals at all levels of the organization want to be recognized for their achievements on the job. Their successes don't have to be monumental before they deserve recognition, but your praise should be sincere. If notice employees doing something well, take the time to acknowledge their good work immediately. Publicly thank them for handling a situation particularly well. Write them a kind note of praise. Or give them a bonus, if appropriate. One may even want to establish a formal recognition program, such as "employee of the month"(8).

Achievement: Kun TW. in "study of the relationships between career orientation, achievement motivation, job satisfaction and intention to stay" is defined as task oriented behavior that allows the individual's performance to be evaluated according to some internally imposed criterion, that involved some standard of excellence (23).

2.5 Previous studies

The previous studies about job satisfaction among medical staff are retrieved most published by American and Europe. O`Malley et al in "Smart thinking for challenged health systems at Marketing Health Services" in Chicago in February 2002; to summarized and showed satisfied employees tend to be more productive, creative and committed to their employers, and recent studies have shown a direct correlation between staff satisfaction and patient satisfaction. What's more, physicians may even discover that by creating a positive workplace for their employees, they've increased their own job satisfaction as well (10).

J Paul Leigh et al. published a paper of research in 2002; the name is "Physician career satisfaction across specialties." Archives of Internal Medicine; Chicago. In this research, they used a large, nationally representative sample of

physicians to assess differences in career satisfaction across 33 specialties. Considerable variations were found; physicians were not equally satisfied. These results may serve to bring greater research and policy attention to why some specialists derive considerably more satisfaction from their work than others (2).

Smith, R in his research to summary points as followings: Several reports from around the world describe declining morale among doctors, but little is known about the reasons. Workload and pay, though important, do not fully explain the problem. A key factor seems to be a change in the psychological compact between the profession, employers, patients, and society so that the job is now different from what doctors expected. Developing a new compact that is more acceptable to the profession is important. Clinical leaders have a potentially crucial role in developing a new compact (3).

Yin Wenqiang et al. in "Research on the scope of job satisfaction and stability of community health worker". Chinese J of hospital administration, 2003, to Addressed workers with high quality, high job satisfaction levels and high stability are indispensable to the sustainable development of community health services. The present research aimed to find out the job satisfaction and stability of community health workers by means of designing relevant questionnaires and sampling survey and to identify the major factors influence job satisfaction and stability. The research found the among the community health workers, those engaged in preventive healthcare were a group with the lowest level of job satisfaction and there were six factors influence the job satisfaction, including working conditions, the effect of the implementation of system, respect from and care by leaders and so on. It also found that 45.1 % of the workers once had the though of leaving their community health centers or stations and there were 5 factors influence job stability, including environment for medical practice, doctor-patient relationship, scope for binging one's ability into play and so forth (5).

The studies investigated the relationship among staff nurses' assessment of

organizational culture, job satisfaction, inpatient satisfaction with information about home care and follow-up, and general inpatient satisfaction with nursing care. Nurses' job satisfaction, patient education, and general inpatient satisfaction with nursing care have been identified in the Nursing Report Card for Acute Care (American Nurses Association, 1995) as important nursing quality outcome indicators. Current literature suggests that organizational culture is directly and positively related to quality assurance implementation and employee job satisfaction, and is indirectly and positively related to patient outcomes as perceived by health care providers (12).

K Newman et al. in the study of nurse satisfaction and retention in four London hospitals conducted in spring 2000. Interviews sought to identify the factors that were thought to influence individual levels of job satisfaction and which affected nurses' current commitment to nursing and intention to stay or leave their Trust (hospital), nursing or the NHS (National Health Service). We provide insights into how far the provisions and requirements set out in the NHS Plan address these preoccupations of nurses (19).

Douglas, et al. in their article to show: Prior studies have reported relatively low job satisfaction for general internists. Data were from a large US physician survey to assess correlates of satisfaction of general internists. General internists' role of caring for patients with complex problems is associated with lower levels of satisfaction than for internal medicine subspecialists and family physician. Adjusting caseload for patient complexity, expanding time for office visits, and additional training in the care of patients with psychosocially complex problems may improve the job satisfaction of general internists and medical student recruitment into the specialty (20).

An anonymous article that was published in "The lancet of London" in Britain on May 5, 2001 through their research to address: One factor that is increasingly generating intense frustration among doctors is the steady erosion of their autonomy over management of patients as health-maintenance or health-insurance

organizations tighten their rules on how and which patients can be treated. A damaging effect of such changes is friction within the profession. In USA, doctors wanting the best for their patients clash with fiscally minded medical directors of health-maintenance organizations or laboratories; and clinicians fall out with clinicians over length of hospital stay or over delay in acceptance of referrals of seriously ill but not necessarily dying patients to sort out entitlement to treatment (Arch Intern Med 2001; 161: 801-02). Such internal friction will surely make patients wary of the care they receive (21).

Alfonso S.P. et al. in "Well-being at work: a cross-national analysis of the levels and determinants of job satisfaction". Journal of Socio-Economics USA, 2000, the aim of this paper is to analyze the levels and determinants of job satisfaction in a cross-national setting. The main results are: (i) Workers in all countries are quite satisfied; this result also applies to the five Eastern European countries analyzed here. (ii) Denmark is the country with the highest job-satisfaction level. The United States is ranked seventh, Great Britain fifteenth, Japan nineteenth, and Russia twentieth. (iii) A comparison with the 1989 ISSP data set reveals that job satisfaction has declined in Germany and the United States in the 1990s. (iv) Using a bottom-up psychological model, in which we compare work-role inputs (e.g., effort) with work-role outputs (e.g., pay), we try to explain cross-national differences. Countries with high work-role outputs, in general, have a high job-satisfaction ranking, and vice versa. (v) Having an interesting job and having good relations with management are the two most important work-role outputs, and having an exhausting job is the most important work-role input. (vi) Workers in Eastern European countries tend to value high income (22).

Zhang Mian et al. in their article: "an empirical study on determinants of job satisfaction of enterprises staff". Based on the statistical analysis of a sample composed of 933 employees in Shenzhen's enterprises, the paper mainly explores the effects of demographic variables, occupational variables and job facet satisfaction on total job satisfaction, to address and interpret the mathematic model of job satisfaction.

In addition, the paper compares the result of analysis with domestic related results that the job satisfaction is lower (24).

Cao Ying et al. in their study with nurses having worked for over one year in the hospital, they were surveyed through self-administered questionnaires by prorata separated layer sampling. Liquid's 5-point scale was used to record scores of job satisfaction concerning each item in the questionnaire and a comparison was made of the average scores of job satisfaction attained by nurses of different levels. The results are nurses working in different positions, different departments, and different shifts and with different goals have different job satisfaction. They have a such conclusion: to enhance the job satisfaction of nurses, different administrative measures and means of stimulation ought to be adopted in accordance with the job satisfaction of different nurses (25).

Eric S. Nadler et al. in 1996, surveyed 587 physicians with direct patient care responsibilities, of whom 62% responded; 51% of 520 physicians responded in 1997. Overall satisfaction was 57% in 1996 and 71% in 1997. Among physicians who responded in both years, overall satisfaction was unchanged, but increases in satisfaction were noted for patient load (an increase of 0.5 points on a five-point scale, P, 0.01), time to discuss patient needs (an increase of 0.3 points, P, 0.01), and helpfulness of care coordination (an increase of 0.5 points, P 5 0.02). In a direct comparison between fee-for-service and capitation, physicians were more satisfied with both methods of payment in 1997 than they were in 1996, but they were much more satisfied with fee-for-service in both years. For many individual indicators, the difference in satisfaction between fee-for-service and capitation increased between 1996 and 1997. So they got this conclusion**:** When introduced to capitation, physicians had strong negative perceptions about it. After a year's experience, satisfaction with capitation improved, but perceived differences between capitation and fee-for-service grew even larger. Thus, physicians have serious concerns about capitation that may not be alleviated by experience with it (26).

Stefan Gaertner study suggested that only three structural determinants (distributive justice, promotional chances, and supervisory support) are directly related to organizational commitment over and above their impact on job satisfaction. The effect size of these direct links, however, is small in that they are not detectable in smaller samples (e.g., n = 244). On the other hand, most structural determinants are directly related to job satisfaction. The notable exception is the amount of pay employees received, which is not related to either job satisfaction or organizational commitment. These findings and implications for future turnover research are discussed (27).

Connolly JJ et al in the study of the role of affectivity in job satisfaction: a meta-analysis. Correlations between affectivity and job satisfaction measures were examined by cumulating research findings across studies. Correlations between (1) job satisfaction and positive affectivity, (2) job satisfaction and negative affectivity and (3) job satisfaction and affective disposition, were separately analyzed. Results indicated that 10±25% of variance in job satisfaction could be due to individual differences in affectivity. No strong moderator variables were found. Implications for a dispositional and situational source of job satisfaction are discussed (28).

In the process of retrieved on line, few articles about nurses' job satisfaction in Thailand and AIHD were found and the main results were similar to that of the studies mentioned above. However, there were almost no studies related to medical doctor's job satisfaction.

CHAPERT 3
RESERCH METHODOLOGY

3.1 Study design

This study was designed as a descriptive cross-sectional study in Weifang people's hospital during comprehensive health system reform period in most public hospitals in China. This study used primary data collection by self-administered questionnaires.

3.2 Study population

All medical doctors in Weifang people's hospital in China were included as the target population of this study.

3.3 Sample size calculation and sampling technique

(a) Sample size:

$$n = \frac{Z^2_{\alpha/2} P(1-P)}{d^2}$$

n = The desirable calculated sample.

α = The parameter level of statistical significance for this study was set at 0.05

$z_{\alpha/2}$ = 1.96 (95% confidence interval for two-sided test.)

P = Anticipated population proportion which have better satisfied level of job satisfaction on post-investigation in China (2002) is 22.1% (18).

d = Precision of degree of accuracy required is set 0.05

$$n = \frac{(1.96)^2 \times 0.221 \times (1 - 0.221)}{0.05^2}$$

$$= 264.5 + 264.5^* \ 10\%$$

$$= 291$$

10% is estimation of missing rate of questionnaire in investigation.

(b) Sampling technique

At the time of data collection, 291 medical doctors were selected from 473 medical doctors in 43 departments of Weifang people's hospital in China. The department of medical doctor working in redistribute into nine departments which according to the property of their work in order that convenience for respondents to fill up and the sort of data and analysis by investigator as followings:

Table 1 The sampling number, name and number of medical doctors in all departments of Weifang people's hospital.

Department	Total No. of doctor	No. of sample
Department of digestive internal medicine	17	11
Department of urinary internal medicine	15	9
Department of cardiovascular internal medicine (I)	15	9
Department of cardiovascular internal medicine (II)	14	9
Department of cerebrovascular internal medicine	18	12
Department of endocrine internal medicine	14	9
Department of respiratory internal medicine	16	10
Department of blood disease's internal medicine	14	8
Department of oncological internal medicine	11	7
Department of connective tissue disease's internal medicine	9	6
Department of common surgery	10	6
Department of liver and gall surgery	9	6
Department of orthopedics surgery	7	4
Department of musculoskeletal surgery I+II	18	12

Table 1 The sampling number, name and number of medical doctors in all departments of Weifang people's hospital. (cont.)

Department	Total No. of doctor	No. of sample
Department of cerebral surgery (I+II)	17	11
Department of urinary surgery	9	6
Department of burnt surgery	6	4
Department of anus and colon surgery	7	4
Department of thoracic surgery	9	6
Department of cardiac surgery	9	6
Department of blood vessel surgery	4	2
Department of oncological surgery	10	6
Department of pediatric surgery	7	4
Department of anesthesiology	22	14
Department of ophthalmology	9	6
Department of otolaryngology	9	6
Department of oral surgery	7	4
Dental department	14	9
Department of obstetrics	13	8

Table 1 The sampling number, name and number of medical doctors in all departments of Weifang people's hospital. (cont.)

Department	Total No. of doctor	No. of sample
Department of gynecology	11	7
Department of birth control	10	7
Department of pediatrics	20	13
Department of infectious disease	18	12
Department of Chinese traditional medicine	13	9
Department of radiology	19	12
Department of radiosurgery	5	3
Department of ultrasonics	7	4
Department of radioisotope	5	3
Department of radiative treatment	5	3
Department of family bed and prevention and health care	5	4
Department of genetics and counsel	7	4
Department of psychology and counsel	4	2
Department of pathology	5	3
Total 43	473	300

The questionnaires were distributed to samples by self-administration. Informed consents were obtained before questionnaire distribution to the medical doctors, after every medical doctor has filled in the questionnaire, and were collected at once. To select the required numbers of sample size, a Stratified Random Sampling technique was applied, including the following steps:

1. Filled-questionnaire is numbered from 001 to 300.
2. Use Stratified Random Sampling to select 300 required questionnaires without replacement.

3.4 Research Instrument

The self–administered questionnaire were conducted by using mostly close-ended questions, which divided into 4 parts as followings:

Part I Socio-demographic factors consisted of 4-item questions including age, gender, marital status and education.

Part II Job characteristic factors were asked 2-item questions including professional post and department of working in.

Part III Attitudes and opinions were asked about their works that consisted of about 27-item scale in questionnaire.

Part IV Individual job satisfaction was asked overall satisfaction about his/her current job.

3.5 Pretest

The purpose was to detect any unclear, misleading or highly sensitive questions. This pilot testing helped in finalizing the contents and wordings of the

questions in the instrument and provided the researchers with a chance of an actual application of the instrument. Thirty-two medical doctors were selected for pilot study from the medical doctors in Weifang people's hospital in China. The medical doctors participating in the pilot study were not included in the final sample of this actual study.

3.6 Data collection

After the questionnaire was approved by the thesis committee, final data were conducted. A group of 3 medical doctors was trained as investigator to distribute and collect the questionnaires from the respondents. The respondents were clarified that information will be anonymous and there will be no harm what so ever to them and to anyone. The data were collected by the investigator with the self-administered questionnaire. The medical doctors who did not fill up all questions, they were excluded from the study.

3.7 Data Processing and Analysis

The questionnaires were first edited, coded and then cleaned and collected data. The analysis was done and results were presented by using statistical analysis as follows:

3.7.1 Descriptive statistics

For this study, the description of the data included socio-demographic factors, job characteristic factors, attitudes and opinions and job satisfaction among medical doctors in Weifang people's hospital in China. Mean, standard deviation were calculated for quantitative variables, and frequencies and percentage were calculated for qualitative variables.

3.7.2 Analytic statistics

Quantitative variable analysis included: Descriptive analysis, Chi-square test, t-test, One-way ANOVA, Non-conditional stepwise linear regression analysis, factor analysis (using for validity and reliability of questionnaire) were used for the development of the job satisfaction among medical doctors.

The critical significant level of statistical test is set at $\alpha = 0.05$.

CHAPTER 4
RESULTS

This study was a descriptive cross-sectional study of job satisfaction among medical doctors in Weifang people's hospital in China. The pretest was carried out during January 1-3, 2005 with 32 medical doctors who were excluded in the final sample of the actual study from ten clinical departments of Weifang people's hospital. After collection the information, the test of reliability was done. The reliability of questionnaire in this pretest was conducted by using SPSS program, the result showed that Alpha was equal to 0.9539.

The actual study was started during January 11-20, 2005. The total respondents of this research were 300 medical doctors who were prior informed and consented to join the activity. These respondents were asked about the basic information of socio-demographic factors, job characteristic factors, attitudes and opinions, and overall job satisfaction by using self-administered questionnaire. The returned were 296 and the response rate of questionnaire was 98.7%. Among them the valid questionnaire is 291 and valid rate is 98.3%, which is exactly the equal number to calculated sampling size.

This study was conducted in order to measure the level of job satisfaction among medical doctors. Moreover, this study was also intended to explore the relationship between socio-demographic factors, job characteristic factors, attitudes and opinions and the medical doctors' job satisfaction, further to detect mainly influential factors with the medical doctors' job satisfaction. It was hoped to be useful to promote the job satisfaction among medical doctors. In turn, it might lead to improving the patient-doctor relationship and consequently the better quality of services. There were very important realistic meanings to perfect a team of medical doctors, to improve the hospital development and even for other hospitals in different areas in China.

4.1 Basic data analysis

The results of this study were presented into four parts as followings:

Part 1: The socio-demographic characteristic of medical doctors

Part 2: The job characteristic factors of medical doctors

Part 3: The attitudes and opinions of medical doctors

Part 4: The job satisfaction of medical doctors

4. 1. 1 Socio-demographic factors

As shown in the conceptual framework of this study, the socio-demographic characteristic of the respondents who were all medical doctors working in Weifang people's hospital in China were composed of 4-item, including gender, age, marital status and education. There were 291 medical doctors as respondents and they responded most of these items in this survey.

Out of 291 respondents investigated, there were 187 respondents were males which more than half (64.3%) of them.

The age of respondents is divided into four groups: less than 30 years old, 31-40 years old, 41-50 years old and more than 50 years old respectively. The group of 31-40 years old is mainly respondents and accounts for 51.9%.

Most of them were married, they were 270 and accounted for 92.8% of all respondents. The other remaining respondents were single (5.8%), divorced and widowed were less than 1% each.

In terms of education, the group of M.D. Bachelor was mainly respondents and also actual principal part composed of the hospital. They were 218 and account for 74.9%. The group of master and above is 47 and account for 16.2% of them. The remaining respondents were three other categories of education (8.9%).

Table 2 Number and percentage distribution of socio-demographic factors of medical doctors.

Factors	Number (n=291)	Percent
Gender:		
Male	187	64.3
Female	104	35.7
Age (years):		
≤30	45	15.5
31-40	151	51.9
41-50	68	23.4
> 50	27	9.3
Marital status:		
Single	17	5.8
Married	270	92.8
Divorced	2	0.7
Widowed	2	0.7
Education:		
Secondary specialized school	2	0.7
Junior college	3	1.0
Undergraduate	21	7.2
M.D. bachelor	218	74.9
Master and above	47	16.2

4.1.2 Job characteristic factors

The two hundreds ninety-one medical doctors were asked for this aspect. There were 291 medical doctors responded the professional post and their department of working in.

In terms of professional post, the group of attending doctor was 111 accounting for 38.1% and other group of deputy director doctor was 100 accounting for 34.4%, respectively, they were the mainly respondents in this research and also were the biggest two departments in the hospital. The remaining was other three groups that were assistant doctor and resident doctor (15.8), and director doctor (11.7%).

Department of internal medicine and surgery were mainly sources that were 89 accounting for 30.6% and 104 accounting for 35.7%, respectively. The remaining was other departments these were less than 10% each. Other departments, including department of obstetrics and gynaecology, pediatrics, prevention and health care, birth control, medical technology, traditional Chinese medicine and others all accounted for 33.7%.

Table 3 Number and percentage distribution of job characteristic factors of medical doctors.

Factors	Number (n=291)	Percent
Professional post:		
Assistant doctor	1	0.3
Resident doctor	45	15.5
Attending doctor	111	38.1
Deputy director doctor	100	34.4
Director doctor	34	11.7
Department of working in:		
Department of internal medicine	89	30.6
Department of surgery	104	35.7
Department of obstetrics & Gynaecology	15	5.2
Department of pediatrics	12	4.1
Department of prevention & health care	3	1.0
Department of birth control	6	2.1
Department of medical technology	28	9.6
Department of traditional Chinese medicine	8	2.7
Others	26	8.9

4.1.3 Attitudes and opinions

Attitudes and opinions toward their work were asked for 291 medical doctors as respondents in Weifang people's hospital in China. In this study eleven aspects that included 27-items of attitudes and opinions by self-administered questionnaire were asked for medical doctors during January 11-20, 2005 as followings.

More than half of respondents could not satisfy their environment for medical practice, including their present environment for medical practice and the patient-doctor relationship. In the item of environment for medical practice, there were 35.1% respondents answer "it was general", 32.3%(negative) respondents answer " relatively bad" and "very bad". The remaining other responses of medical doctors better and very good were 32.6%(positive). The relationship between medical doctors and patients maybe a seriously problem that response very tense and relatively tense was 39.9%, so so is 32.3%, better and very good was 27.8%.

In terms of income that is composed of their present income and the welfare of the hospital, it is a possibly potential factor influencing job satisfaction. Most of respondents were not satisfied and only few were satisfied with their income that very satisfied was 2.4% relatively satisfied was 18.9%, so so was 38.5%, relatively unsatisfied was 23.8% and very unsatisfied was 16.2% respectively. The satisfied level in this item of welfare was much lower that was not enough a fifth of all respondents to answer satisfied that still add up of very satisfied and relatively satisfied (19.9%). The answer so so was 30.2%, "relatively unsatisfied" and "very unsatisfied" only accounts for 49.8%.

Note: The attitude and opinion was classified into 5 levels. 1. is very unsatisfied, 2. is relatively unsatisfied, 3. is so so, 4. is relatively satisfied, 5. is very satisfied.

Table 4 Number and percentage distribution of environment for medical practice, income, equity and system development of medical doctors (n = 291).

Attitudes and opinions	1	2	3	4	5	Mean	S.D.
Environment for medical practice							
Environment for medical practice							
Number	30	64	102	76	19	2.97	1.08
Percent	10.3	22.0	35.1	26.1	6.5		
Patient-doctor relationship							
Number	31	85	94	56	25	2.86	1.11
Percent	10.7	29.2	32.3	19.2	8.6		
Income							
Income							
Number	48	69	112	55	7	2.67	1.04
Percent	16.5	23.7	38.5	18.9	2.4		
Welfare							
Number	82	63	88	51	7	2.44	1.14
Percent	28.2	21.6	30.2	17.5	2.4		
Equity							
Remuneration distribution							
Number	99	66	73	51	2	2.28	1.13
Percent	34.0	22.7	25.1	17.5	0.7		
Promotion of professional post							
Number	41	37	117	79	17	2.98	1.10
Percent	14.1	12.7	40.2	27.1	5.8		
System development							
Employing mechanism							
Number	54	65	109	53	10	2.66	1.08
Percent	18.6	22.3	37.5	18.2	3.4		
Work break							
Number	18	37	102	110	24	3.29	1.00
Percent	6.2	12.7	35.1	37.8	8.2		
System development							
Number	28	46	115	69	33	3.11	1.11
Percent	9.6	15.8	39.5	23.7	11.3		
Safety management							
Number	42	52	137	48	12	2.78	1.02
Percent	14.4	17.9	47.1	16.5	4.1		

Note of some answer: **Environment for medical practice:** 1. Very bad, 2. Relatively bad, 3. So so, 4. Better, 5. Very good. **Patient-doctor relationship:** 1. Very tense, 2. Relative tense, 3. So so, 4. Better, 5. Very good. **Remuneration distribution and Work break:** 1. Very unreasonable, 2. Relatively unreasonable, 3. So so, 4. Relatively reasonable, 5. Very reasonable. **Promotion of professional post:** 1. Very inequitable, 2. Relatively inequitable, 3. So so, 4. Relatively equitable, 5. Very equitable.

The equity include two items, those were remuneration distribution and promotion of professional post. Most of respondents disagree the system of remuneration distribution of hospital. There were only two respondents answers very reasonable (0.7%), also 17.5 % answer relatively reasonable. Majority of answer was very unreasonable and relatively unreasonable (56.7%) and so so was 25.1%, respectively. The situation of promotion of professional post perhaps better than above, very inequitable and relatively inequitable were 26.8%, so so was 40.2%, and relatively equitable and very equitable were 32.9%.

The attitudes and opinions with system development of hospital from respondents were four items, including employing mechanism, stimulation of work break and so on. In which, the satisfied level of medical doctors on employing mechanism, system development and safety management were very low. The employing mechanism negative answer was 40.9% and positive answer was 21.6%. The system development negative answer was 25.4% and positive answer was 35.0%. The safety management negative answer was 32.3% and positive answer was 20.6%. Only this item of work break is better than previous three items in this research, but either much or less have some comments yet with the stimulation of work break of hospital, they answer very unreasonable and relatively unreasonable were 18.9%, relatively reasonable and very reasonable were 46.0%

The aspect of leader's behavior included three items that is respect and care by leader, approval of achievement by leader and impression for leader. These satisfied levels of medical doctors were relatively high than other items, but only respect and care by leader more than half of respondents answer sometimes and absolutely have that were 30.9% and 25.8% respectively, absolutely no and have no were 21.7%. The approval of achievement negative answer was 12.3% and positive answer was 36.7%. The impression for leader negative answer was 17.8% and positive answer was 43.3%.

Table 5 Number and percentage distribution of leader behavior, working condition and achievement of medical doctors (n = 291).

Attitudes and opinions	1	2	3	4	5	Mean	S.D.
Leader behavior							
Respect by leader							
Number	22	41	63	90	75	3.53	1.23
Percent	7.6	14.1	21.6	30.9	25.8		
Approval of achievement							
Number	10	26	148	79	28	3.31	0.89
Percent	3.4	8.9	50.9	27.1	9.6		
Impression for leader							
Number	24	28	113	87	39	3.31	1.08
Percent	8.2	9.6	38.8	29.9	13.4		
Working condition							
Working condition							
Number	19	47	80	106	39	3.34	1.10
Percent	6.5	16.2	27.5	36.4	13.4		
Achievement							
Position in society							
Number	17	31	127	98	18	3.24	0.93
Percent	5.8	10.7	43.6	33.7	6.2		
Achievement							
Number	6	22	36	121	106	4.03	0.99
Percent	2.1	7.6	12.4	41.6	36.4		
Skill improvement							
Number	25	27	123	94	22	3.21	1.01
Percent	8.6	9.3	42.3	32.3	7.6		
Ability implementation							
Number	19	32	108	100	32	3.32	1.03
Percent	6.5	11.0	37.1	34.4	11.0		
Quality of services							
Number	1	3	19	135	133	4.36	0.68
Percent	0.3	1.0	6.5	46.4	45.7		

Note of some answers: **Respect by leader, Achievement and Identify and ownership:** 1. Absolutely no, 2. Have no, 3. Not sure, 4. Sometimes, 5. Absolutely have. **Approval of achievement:** 1. Don't approval at all, 2. Don't approval very much, 3. Approval basically, 4. Relatively approval, 5. Approval totally. **Ability implementation:** 1. Cannot at all, 2. Cannot a bit, 3. So so, 4. Can do better, 5. Can do fully.

Working condition is only one item to evaluate the satisfied level of medical doctors about this. This is also another better-satisfied level of them than other aspects. Perhaps that may be because of the new changes of buildings and equipments of hospital in recent years. The negative answer was 22.7% and positive answer was 49.8%. In addition, also there were 27.5% answers generally.

This aspect of achievement of medical doctors was composed of five items, including position in society, achievement of their work, skill improvement, ability implementation and quality of services by themselves. These were a group of high satisfied levels of all respondents. In which, the quality of services was the highest and the negative answer was 1.3% and more than 90% respondents were positive answer of relatively satisfied (46.4%) and very satisfied (45.7%). The secondary item of high satisfied was achievement of their work that negative and positive answer was 9.7% and 78.0% respectively. The tertiary were ability implementation that negative and positive answer were 17.5% and 45.4% respectively, position in society that negative and positive answer were 16.5% and 39.9% respectively, and skill improvement that negative and positive answer were 17.9% and 39.9% respectively.

Interpersonal relation and cooperation of department that included three items of relationship harmonious with their colleagues, collective cohesion among members in their departments and the sense of ownership and identify with the hospital was another item for evaluating satisfaction. These were also another group of higher satisfied level of their attitudes and opinions, three items majority of them were high of the medical doctors in this study. The first item was relationship harmonious that answer of very harmonious was 42.6% and relatively harmonious was42.3%, the negative answer only was 2.4%. Identify and ownership is second item of high level that responded absolutely have was 36.8% and basically have was 37.5%, the negative answer only was 8.9%. The third item is collective cohesion that answers very strong (18.9%) and relatively strong (42.3%) added up also more than 60%, the negative answer was 7.9%.

Table 6 Number and percentage distribution of interpersonal relation and cooperation, advancement opportunity, task significance, working load and mean of total satisfied item of medical doctors (n = 291).

Attitudes and opinions	1	2	3	4	5	Mean	S.D.
Interpersonal relation and cooperation							
Relationship harmonious							
Number	4	3	37	123	124	4.24	0.81
Percent	1.4	1.0	12.7	42.3	42.6		
Collective cohesion							
Number	10	13	90	123	55	3.70	0.93
Percent	3.4	4.5	30.9	42.3	18.9		
Identify and ownership							
Number	5	21	49	109	107	4.00	0.99
Percent	1.7	7.2	16.8	37.5	36.8		
Advancement opportunity							
Participate in training *							
Number	18	193	80			2.22	0.54
Percent	6.2	66.3	27.5				
Challenge							
Number	8	6	67	113	97	3.98	0.95
Percent	2.7	2.1	23.0	38.8	33.3		
Chance of promotion							
Number	18	35	117	100	21	3.24	0.97
Percent	6.2	12.0	40.2	34.4	7.2		
Task significance							
Task significance							
Number	4	3	37	104	143	4.30	0.83
Percent	1.4	1.0	12.7	35.7	49.1		
Working load**							
Working load							
Number	5	5	131	124	26	2.55	0.75
Percent	1.7	1.7	45.0	42.6	8.9		
Mean of total satisfied item						3.40	

* Only 3 choices. ** Was negative design.

Mean of total satisfied item exclude participate in training and working load.

Note of some answers: **Relationship harmonious:** 1.Very unharmonious, 2. Relatively unharmonious, So so, 4. Relatively harmonious, 5. Very harmonious. **Collective cohesion:** 1. Very bad, 2. Relatively bad, 3. So so, 4. Relatively strong, 5. Very strong. **Participate in training:** 1. Never, 2. Participate occasionally, 3. Often participate. **Challenge:** 1. No challenge, 2. Relatively no challenge, 3. So so, 4. Stronger challenge, 5. Very strong challenge. **Chance of promotion:** 1. Have no at all, 2. Have no, 3. Not sure, 4. Some, 5. Very much. **Task significance:** 1. Unimportant at all, 2. Unimportant, 3. So so, 4. Important, 5. Very important. **Working load:** 1. Few, 2. Less, 3. So so, 4. Heavier, 5. Very heavy.

In terms of advancement opportunities also includes three items that were participate in training, challenge of their work and the chance of promotion. The item of participate in training only has three sub-items that answers of never was 6.2%, occasionally was 66.3% and often participate was 27.5%. The challenge of their work, there were 33.3% to response very strong challenge and 38.8% to response strong challenge, the remaining responses were no challenge (2.7%), relatively no challenge (2.1%) and so so (23.0%) respectively. The chance of promotion was not a high satisfied level item that answers some and very much were respectively 34.4% and 7.2%, the negative answer was 18.2%.

Task significance only contained one item of attitudes and opinions in the questionnaire. The most medical doctors thought that it was important to the work of themselves. About 49.1% medical doctors thought that it was very important and 35.7% thought that it was important, only 2.4% thought it was unimportant at all and unimportant.

Working load also only contains one item. More than half of them thought their work for being very heavy or heavier, those were 42.6% to respond heavier and 8.9% to respond very heavy of their working load. All others only were 3.4% to respond less or few of their working load.

4.1.4 Job satisfaction

Job satisfaction among medical doctors as overall were asked only one question that was overall satisfied feeling with their current job. There were totally 291 respondents to respond this item, the satisfied level was higher, these were very satisfied (19.6%), relatively satisfied (51.2%), so so (21.6%), relatively unsatisfied (4.1%) and very unsatisfied (3.4%), respectively.

Table 7 Number and distribution of job satisfaction (n = 291).

Job satisfaction	Number (n=291)	Percent	Mean
Very unsatisfied	10	3.4	
Relatively unsatisfied	12	4.1	
So so	63	21.6	3.79
Relatively satisfied	149	51.2	
Very satisfied	57	19.6	

4.1.5 Analysis on general situation for research items of Job satisfaction

The mean score for each of the twenty-seven research items of satisfaction those were just attitudes and opinions in framework of proposal by using five likert scales method. Further, in accordance with the value of mean score to research items of satisfaction to range the order of these items. It like the mean of ten research items of higher and lower scoring by medical doctors as following table 8.

4.2 Correlative analysis on the factors to influence the job satisfaction

4.2.1 Chi-Square test on socio-demographic factors and job characteristic factors with job satisfaction

Using Chi-Square test to analyze the socio-demographic factors and job characteristic factors with the job satisfaction among medical doctors, in order that we want to find the relationship among the factors. The finding indicate the socio-demographic factors that included age, gender, marital status and education had no statistically significant difference. The item of department of working in that was included in job characteristic factors had strong statistically significant difference (P = 0.000), and another item that was professional post was not statistically significant difference as following table 9 and table 10.

4.2.2 Correlative analysis on general situation of research items and job satisfaction

We calculate the mean and standard deviation each of the twenty-seven research items of satisfaction those were just attitudes and opinions in framework of thesis proposal by using five likert scales method. Furthermore, analyze the correlation of each to another. The finding shows there were positive relationships of research items with job satisfaction, the hypotheses test of each correlation coefficients to the difference is strong statistically significant ($p < 0.01$). In which, the order of research items in accordance with larger Pearson correlation coefficients with job satisfaction as following table 11.

Table 8 Higher mean score of ten research items before and lower mean score after.

Order	Higher scoring item	Mean	Order	Lower scoring item	Mean
1	Quality of services	4.36	1	Remuneration distribution	2.28
2	Task significance	4.30	2	Welfare	2.44
3	Relationship harmonious	4.24	3	Employing mechanism	2.66
4	Achievement	4.03	4	Income	2.67
5	Identify and ownership	4.00	5	Safety management	2.78
6	Challenge	3.98	6	Patient-doctor relationship	2.86
7	Job satisfaction	3.79	7	Environment for medical practice	2.97
8	Collective cohesion	3.70	8	Promotion of professional post	2.98
9	Working load	3.55	9	System development	3.11
10	Respect by leader	3.53	10	Skill improvement	3.21

Table 9 Chi-Square test on socio-demographic factors with job satisfaction.

Item	1	2	3	4	5	Total	Chi-square	P-value
Gender:							5.963	0.202
Male	10	8	39	95	35	187		
	5.3%	4.3%	20.9%	50.8%	18.7%	100%		
Female	0	4	24	54	22	104		
	0%	3.8%	23.1%	51.9%	21.2%	100%		
Total	10	12	63	149	57	291		
	3.4%	4.1%	21.6%	51.2%	19.6%	100%		
Age:							20.003	0.067
≤30	0	1	8	23	13	45		
	0%	2.2%	17.8	51.1%	28.9%	100%		
31-40	9	9	29	79	25	151		
	6.0%	6.0%	19.2%	52.3%	16.6%	100%		
41-50	0	1	23	32	12	68		
	0%	1.5%	33.8%	47.1%	17.6%	100%		
>50	1	1	3	15	7	27		
	3.7%	3.7%	11.1%	55.6%	25.9%	100%		
Total	10	12	63	149	57	291		
	3.4%	4.1%	21.6%	51.2%	19.6%	100%		
Marital status:							3.845	0.871
Single	1	0	4	11	1	17		
	5.9%	0%	23.5%	64.7%	5.9%	100%		
Married	9	12	58	136	55	270		
	3.3%	4.4%	21.5%	50.4%	20.4%	100%		
Divorced	0	0	1	2	1	4		
/Widowed	0%	0%	25%	50%	25%	100%		
Total	10	12	63	149	57	291		
	3.4%	4.1%	21.6%	51.2%	19.6%	100%		
Education:							12.602	0.113
Secondary specialized school /Junior college/ Undergraduate	2	1	6	8	9	26		
	7.7%	3.8%	23.1%	30.8%	34.6%	100%		
M.D. Bachelor	5	11	45	119	38	218		
	2.3%	5.0%	20.6%	54.6%	17.4%	100%		
Master and above	3	0	12	22	10	47		
	6.4%	0%	25.5%	46.8%	21.3%	100%		
Total	10	12	63	149	57	291		
	3.4%	4.1%	21.6%	51.2%	19.6%	100%		

Table 10 Chi-Square test on job characteristic factors with job satisfaction.

Item	1	2	3	4	5	Total	Chi-Square	P-value
Professional post:							10.753	0.550
Assistant /Resident	1 2.2%	1 2.2%	8 17.4%	25 54.3%	11 23.9%	46 100%		
Attending	5 4.5%	7 6.3%	23 20.7%	56 50.5%	20 18.0%	111 100%		
Deputy director	3 3.0%	3 3.0%	29 29.0%	46 46.0%	19 19.0%	97 100%		
Director	1 2.9%	1 2.9%	3 8.8%	22 64.7%	17 20.6%	34 100%		
Total	10 3.4%	12 4.1%	63 21.6%	149 51.2%	57 19.6%	291 100%		
Department							54.556	0.000
Internal medicine	3 3.4%	4 4.5%	20 22.5%	48 53.9%	14 15.7%	89 100%		
Surgery	4 3.8%	5 4.8%	27 26.0%	53 51.0%	15 14.4%	104 100%		
Obstetrics & Gynaecology/ Birth control	0 0%	0 0%	4 19.0%	10 47.6%	7 33.3%	21 100%		
Pediatrics	0 0%	2 16.7%	0 0%	9 75.0%	1 8.3%	12 100%		
Medical technology	1 3.6%	0 0%	7 25.0%	12 42.9%	8 28.6%	28 100%		
Traditional Chinese medicine	0 0%	0 0%	0 0%	0 0%	8 100%	8 100%		
Others/ Prevention & health care	2 6.9%	1 3.4%	5 17.2%	17 58.6%	4 13.8%	29 100%		
Total	10 3.4%	12 4.1%	63 21.6%	149 51.2%	57 19.6%	291 100%		

Table 11 The order of research items in accordance with larger Pearson correlation coefficients with job satisfaction

Order	Evaluation item	Mean	Standard deviation	Pearson Correlation coefficients	P-value
1	Working condition	3.34	1.10	0.596	0.000
2	Respect by leader	3.53	1.23	0.500	0.000
3	System development	3.11	1.11	0.499	0.000
4	Ability implementation	3.32	1.03	0.463	0.000
5	Position in society	3.24	0.93	0.461	0.000
6	Skill improvement	3.21	1.01	0.453	0.000
7	Welfare	2.44	1.14	0.446	0.000
8	Environment for medical practice	2.97	1.08	0.436	0.000
9	Impression for leader	3.31	1.08	0.431	0.000
10	Identify and ownership	4.00	0.99	0.431	0.000
11	Safety management	2.78	1.02	0.423	0.000
12	Remuneration distribution	2.28	1.13	0.396	0.000
13	Promotion of professional post	2.98	1.10	0.396	0.000
14	Relationship harmonious	4.24	0.81	0.388	0.000
15	Employing mechanism	2.66	1.08	0.381	0.000
16	Work break	3.29	1.00	0.355	0.000
17	Challenge	3.98	0.95	0.337	0.000
18	Patient-doctor relationship	2.86	1.11	0.332	0.000
19	Task significance	4.30	0.83	0.316	0.000
20	Collective cohesion	3.70	0.93	0.313	0000
21	Approval of achievement	3.31	0.89	0.311	0.000
22	Achievement	4.03	0.99	0.310	0.001
23	Chance of promotion	3.24	0.97	0.298	0.000
24	Income	2.67	1.04	0.251	0.000
25	Participate in training	2.22	0.54	0.202	0.000
26	Quality of services	4.36	0.68	0.198	0.000

4. 3 Analysis for relationship of related factors with the job satisfaction

4.3.1 Analysis for the sum of satisfied items

Using five likert scales method to scoring for twenty-seven related research items that might reflect the job satisfaction, (including job satisfaction, income, environment for medical practice, patient-doctor relationship, relationship harmonious, working condition, task significance, position in society, remuneration distribution, employing mechanism, collective cohesion, work break, achievement, identify and ownership, system development, respect and care by leader, approval of achievement, welfare, promotion of professional post, safety management, skill improvement, quality of services, challenge of work, chance of promotion, impression for leader and ability implementation.) to merge a general item that is named the sum of satisfied item. The next stage tests the normality of the sum of satisfied item and that shows it obey normal distribution and might do ANOVA analysis.

Using ANOVA to analyze the sum of satisfied item with socio-demographic factors and job characteristic factors. The findings show for sum of satisfied item with socio-demographic factors and job characteristic factors (i.e. age, gender, marital status, education, department of working in and professional post). The findings show socio-demographic factors that impact the sum of satisfied item, including gender, marital status and education; the difference was not statistically significant, but the other three items of age, department of working in and professional post, the difference had strong statistical significance ($p<0.01$).

The finding of ANOVA analysis on the difference between the sum of satisfied item with socio-demographic factors and job characteristic factors as following table 12-13.

Table 12 The difference of sum of satisfied item between socio-demographic factors.

Socio-demographic Factors	n	Mean of sum of satisfied item	S.D.	F	P-value
Age group				6.26	0.000
⩽ 30	43	93.46	16.87		
31 – 40	147	83.33	17.40		
41 – 50	65	87.58	15.15		
> 50	26	94.07	13.04		
Gender				1.60*	0.109
Male	182	85.68	17.47		
Female	100	89.05	15.65		
Marital Status				0.01	.991
Single	16	87.44	14.13		
Married	262	86.84	17.04		
Divorce/Widowed	4	86.75	22.11		
Education				0.82	0.442
Secondary specialized School/Junior college/ Under graduated	26	90.6923	21.22408		
M.D. bachelor	211	86.1754	16.25343		
Master and above	45	87.0000	18.16465		

* Using t-test

Table 13 The difference of sum of satisfied item between job characteristic factors.

Job characteristic Factors	n	Mean of sum of satisfied item	S.D.	F	P-value
Professional post				4.93	0.002
Assistance doctor/ Resident doctor	46	92.26	18.09		
Attending doctor	114	83.97	17.83		
Deputy director doctor	95	85.18	15.79		
Director doctor	34	93.67	12.98		
Department of working in				3.80	0.000
Internal medicine	89	84.86	17.54		
Surgery	104	84.76	16.79		
Obstetrics & Gynaecology	14	93.00	18.85		
Pediatrics	12	83.66	12.28		
Prevention & Health care	3	101.66	17.90		
Birth control	6	98.00	12.94		
Medical technology	28	89.78	16.51		
Traditional Chinese medicine	7	113.71	0.75		
Others	26	85.27	13.21		

The figure 1 below shows the difference to the mean score of the sum of satisfied item in different age groups of respondents. Medical doctors with age group between 31-40 years had the lowest mean score of the sum of satisfied item, and medical doctors with age more than fifty years had the highest mean score of the sum of satisfied item.

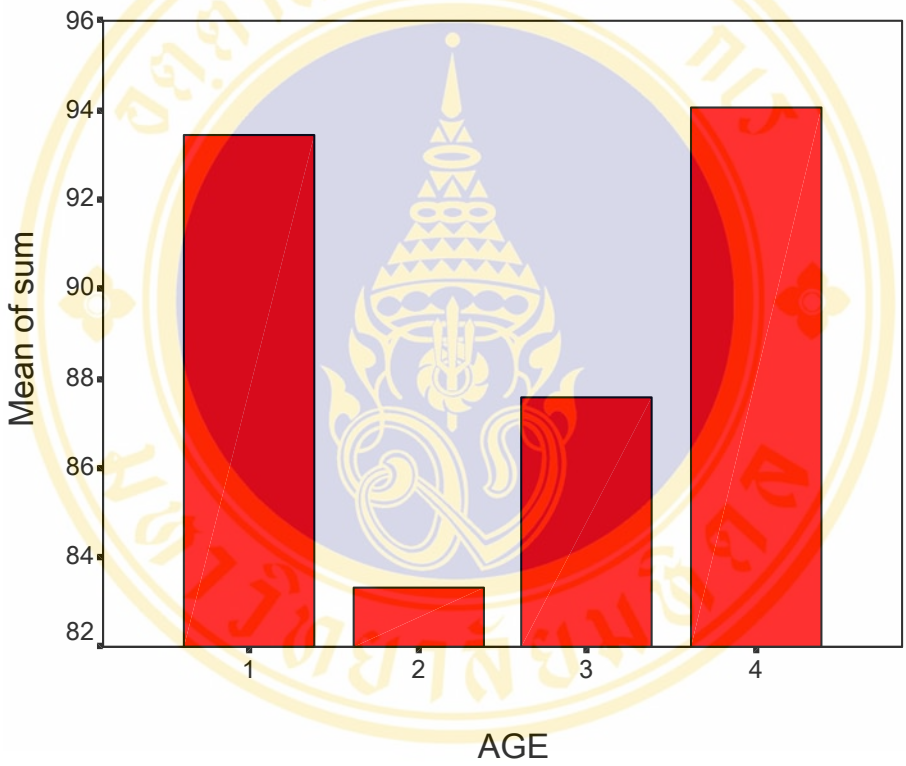


Figure 1 The bar to distribution of sum of satisfied item of medical doctors in different age groups.

Age group: 1. ≤30 years, 2. 31-40 years, 3. 41-50 years, 4. > 50 years.

The figure 2 below shows the difference to the mean score for the sum of satisfied item by different categories of professional post of respondents. Director doctor had the highest mean score for the sum of satisfied item, while the assistant doctor had the lowest mean score for the sum of satisfied item.

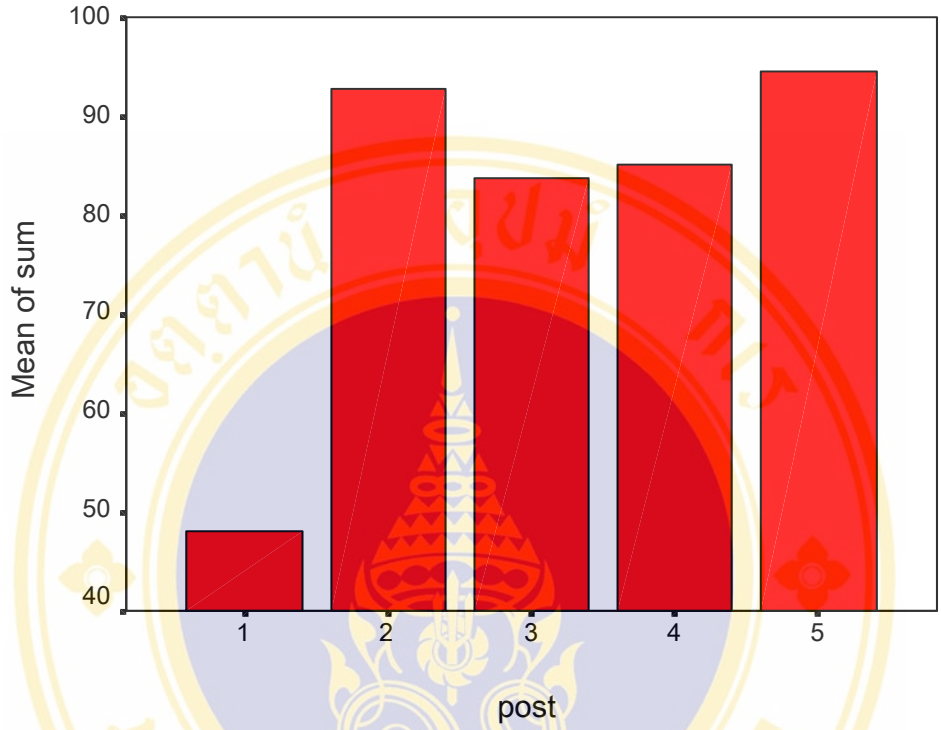


Figure 2 The bar to distribution of sum of satisfied item of medical doctors in different professional post.

Professional post: 1. Assistant doctor, 2. Resident doctor, 3. Attending doctor, 4. Deputy director doctor, 5. Director doctor.

From the following figure 3 shows the difference of the mean score of the sum of satisfied item by different department of working in of respondents. The doctors in department of traditional Chinese medicine have the highest mean score for the sum of satisfied item and the pediatricians to score of it were the lowest.

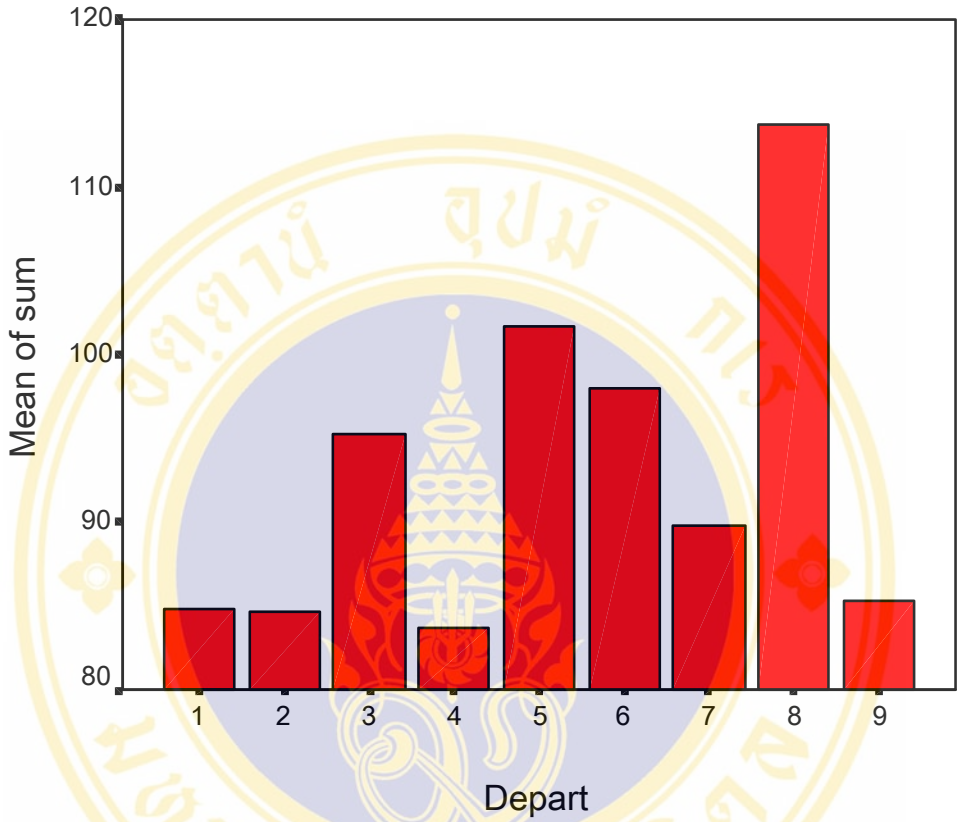


Figure 3 The bar to distribution of sum of satisfied item of medical doctors in different department.

Department of working in: 1. Department of internal medicine, 2. Department of surgery, 3. Department of obstetrics & Gynaecology, 4. Department of pediatrics, 5. Department of prevention & health care, 6. Department of birth control, 7. Department of medical technology, 8. Department of traditional Chinese medicine, 9. Others.

4.3.2. Analysis for related factors with each item of satisfaction

4.3.2.1 Analysis for gender with each item of satisfaction

Using t test, the items that difference between gender and each item of satisfaction there was statistically significant as following: job satisfaction (female

higher than male), Task significance (female higher than male), collective cohesion (female higher than male), impression for leader (female higher than male).

4.3.2.2 Analysis for age groups with each item of satisfaction

The difference of each item of satisfaction between age groups was tested by using ANOVA analysis and the statistically significant difference was shown as following:

Income: The age group that the age of medical doctors is more than thirty years and less than forty years had the lowest mean score, and the mean score of the medical doctors that the age was more than fifty years were the highest.

Environment for medical practice: The age group that the age of medical doctors was and less than thirty years had the highest mean score, the medical doctors that the age was more than thirty years and less than forty years had the lowest mean score.

Patient-doctor relationship: The mean score of the respondents that age was more than thirty years and less than forty years were the lowest, and more than fifty years were the highest.

Relationship harmonious: The mean score of the medical doctors that age was more than thirty years and less than forty years were the lowest, and more than fifty years were the highest.

Working condition: The age group that the age of medical doctors was and less than thirty years have the highest mean score, the medical doctors that the age was more than thirty years and less than forty years had the lowest mean score.

Position in society: The age group that the age of medical doctors was and less than thirty years had the highest mean score, the medical doctors that the age was

more than thirty years and less than forty years had the lowest mean score.

Employing mechanism: The age group that the age of medical doctors was and less than thirty years had the highest mean score, the medical doctors that the age was more than thirty years and less than forty years had the lowest mean score.

Collective cohesion: The age group that the age of medical doctors was and less than thirty years had the highest mean score, the medical doctors that the age was more than forty years and less than fifty years had the lowest mean score.

Work break: The age group that the age of respondents was more than thirty years and less than forty years had the lowest mean score, the medical doctors that the age was more than fifty years had the highest mean score.

System development: The age group that the age of medical doctors was more than thirty years and less than forty years had the lowest mean score, the medical doctors that the age was more than fifty years had the highest mean score.

Respect and care by leader: The age group that the age of medical doctors was and less than thirty years had the highest mean score, the medical doctors that the age was more than thirty years and less than forty years had the lowest mean score.

Welfare: The age group that the age of medical doctors was more than thirty years and less than forty years had the lowest mean score, the medical doctors that the age is more than fifty years had the highest mean score.

Promotion of professional post: The age group that the age of medical doctors was and less than thirty years had the highest mean score, the medical doctors that the age was more than thirty years and less than forty years had the lowest mean score.

Skill improvement: The age group that the age of medical doctors was and less than thirty years had the highest mean score, the medical doctors that the age was more than thirty years and less than forty years had the lowest mean score.

Challenge of work: The age group that the age of medical doctors was and less than thirty years had the highest mean score, the medical doctors that the age was more than forty years and less than fifty years had the lowest mean score.

Impression for leader: The age group that the age of medical doctors was more than thirty years and less than forty years had the lowest mean score, the medical doctors that the age was more than fifty years had the highest mean score.

Ability implementation: The mean score of the medical doctors that age was and more than thirty years were the highest, and that more than thirty years and less than forty years were the lowest.

4.3.2.3 Analysis for marital status with each item of satisfaction

Using ANOVA analysis, the items of satisfaction that were statistically significant difference between marital status included working load, ownership and identify with hospital.

4.3.2.4 Analysis for education with each item of satisfaction

The items that difference between different education and each item of satisfaction had statistically significant by using ANOVA analysis, including working load, environment for medical practice, working condition, achievement, welfare, safety management, challenge of work and chance of promotion.

4.3.2.5 Analysis for professional post with each item of satisfaction

Using ANOVA analysis, the items that difference between different professional post and each item of satisfaction was statistically significant, including income, employing mechanism, collective cohesion, work break, achievement,

identify and ownership, system development, respect and care by leader, welfare, promotion of professional post, skill improvement, challenge of work, chance of promotion, impression for leader and ability implementation.

4.3.2.6 Analysis for different department with each item of satisfaction

Using ANOVA analysis, the items that difference between different department and each item of satisfaction was statistically significant, including job satisfaction, working load, environment for medical practice, the patient-doctor relationship, relationship harmonious, working condition, remuneration distribution, employing mechanism, identify and ownership, system development, respect and care by leader, welfare, safety management, chance of promotion, impression for leader and ability implementation.

4.4 Multivariate analysis

We decided to treat job satisfaction of the medical doctors as a dependent variable, socio-demographic and job characteristic factors (ie. gender, age, marital status, education, professional post and department of working in) as a dummy variable to lead into the regression model and with the research items of job satisfaction as independent variables to analyze stepwise multiple linear regression. The results as following table 14.

From table 14 showed that all VIF enter regression model were less the ten, for this reason, the regression model have been set up which there was no collinearity problem. The factors that included in regression model were five items of working condition, approval of achievement, identify and ownership, relationship harmonious and welfare respectively. In which there were three larger values of standardizd coefficients Beta were working condition, relationship harmonious with colleague and approval of achievement, that showed these three factors had stronger impact to job satisfaction. Five factors in regression model could explain the variance of job satisfaction about 44.4%.

Table 14 The results of stepwise multiple linear regression analysis on job satisfaction.

	Unstandardized Coefficients		Standardized Coefficients	t	P-value	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
Constant	1.001	0.242		4.12	0.000		
Working condition	0.330	0.047	0.397	7.052	0.000	0.641	1.56
Approval of achievement	0.128	0.056	0.124	2.279	0.023	0.687	1.46
Identify and ownership	0.106	0.051	0.115	2.101	0.037	0.679	1.47
Relationship harmonious	0.142	0.058	0.126	2.433	0.016	0.755	1.33
Welfare	0.097	0.043	0.123	2.245	0.026	0.679	1.47

R Square R^2=0.444, Adjusted R Square R^2=0.434

4. 5 Stability and job satisfaction of medical doctors

4. 5. 1 Description of stability

The meaning of stability among medical doctors is for individual who has higher or lower intention of leave their job. If he has higher intention to leave his job, then we can say lower of job stability. For an organization, in which there is more personnel have higher intention to leave their job, we will say the stability of personnel in the organization is lower, and loss rate will be higher. It is an interesting and also pays close attention in recent year, especially under comprehensive health system reform period in China.

In this research, it was extension of framework of thesis, however as interesting of author asked about the question conveniently while the process of investigation was implemented. The question as: Do you produce the intention of leaving the hospital where you stay? The respondents to answer never accounted for 46.3%, sometimes accounted for 48.5% and often accounted for 5.2%. From table 15 showed the medical doctors had the intention of leaving the hospital frequently as following: the below M.D. bachelor accounted for 0%, M.D. bachelor had this intention accounted for 4.6%, the master and above were the highest accounted for 10.6%.

Table 15 The general situation of stability of medical doctors (n = 291).

Education	Leaving hospital			Total
	Never	Sometimes	Often	
Blow M.D. Bachelor*	15	11	0	26
Percent	57.7%	42.3%	0	100%
M.D. Bachelor	103	105	10	218
Percent	47.2%	48.2%	4.6%	100%
Master and above	17	25	5	47
Percent	36.2%	53.2%	10.6%	100%
Total	135	141	15	291
	46.3%	48.5%	5.2%	100%

* Were merged for Secondary specialized school, Junior college, Undergraduate.

4.5.2 Correlative analysis on stability and job satisfaction

From table 15 we can find the intention of leaving hospital among medical doctors more than half of respondents. For this reason we analyze the correlation for the intention of leaving hospital with job satisfaction, remuneration distribution and

promotion of professional post, the finding r is all negative value (table 16), which indicate negative correlation. Out of this finding means the intention of leaving hospital lower while job satisfaction is higher, so that just is stability is higher also.

Table 16 Correlative analysis on stability and job satisfaction (n = 291)

		Leaving hospital	Job satisfaction	Remuneration distribution	Promotion of professional post
Leaving hospital	Correlation Coefficient	1.000	-0.277	-0.334	-0.332
	P-value		0.000	0.000	0.000
Job satisfaction	Correlation Coefficient	-0.277	1.000	0.399	0.403
	P-value	0.000		0.000	0.000
Remuneration distribution	Correlation Coefficient	-0.334	0.399	1.000	0.479
	P-value	0.000	0.000		0.000
Promotion of professional post	Correlation Coefficient	-0.332	0.403	0.479	1.000
	P-value	0.000	0.000	0.000	

CHAPTER 5
DISCUSSTION

After the results of this study were presented on chapter IV, this chapter would be dedicated to some discussion. The successive discussion would concentrate on the level of medical doctors' job satisfaction in Weifang people's hospital in China, the relationship between socio-demographic factors, job characteristic factors, and attitudes and opinions and job satisfaction based on data analysis, thereby, to detect the key factors to influence the job satisfaction and stability. The discussion would be presented from seven aspects as followings.

5.1 Reliability of questionnaire in pretest

The design of questionnaire in this research there was better reliability that was further perfected through the pretest. Overall, the reliability of job satisfaction questionnaire to achieve a desirably objective criterion and the job satisfaction scale in this study was acceptable. Thus, the process of this study was continued, at the same time, the groundwork and evidence will be provided for this aspect of job satisfaction in more systematic study later.

5.2 Basic data analysis and necessity of this study to medical doctors' job satisfaction

Out of the structural education of medical doctors in this research showed the educational level was higher that most medical doctors were M.D. bachelor and master and above (91.1%). These findings showed that the hospital had a higher quality team of medical doctors. But if one wants to implement the function of the team of medical doctors fully, to promote the hospital development toward a higher quality orientation, for this reason, the manager should adopt various means and methods of human manpower management. As a result, to encourage motivation,

initiative and creativeness of the medical doctors, and to improve the quality of services, in which investigating medical doctors' job satisfaction just are an effective management method.

Job satisfaction is the medical doctor's joyfulness or positive emotion state that comes from the evaluation of individual work or experience (1). This has aroused the attention from people once the conception coming out, mainly because it is correlated notably with worker's achievement, loss rate, etc. At the same time an item of investigations of Harvard University shows: the job satisfaction of staff is raised by 3 percentage points each time, customer satisfaction improves correspondingly by 5 percentage points (2).

The doctor's job satisfaction and morale have also caused the extensive concern in other countries in recent years (5). There were two mainly courses as followings: first, medical doctors with high job satisfaction were more likely to offer higher quality of health services than doctors with low satisfaction (6-9). The existence of a direct relationship between medical doctor's satisfaction and patient satisfaction were mentioned. Second, medical doctors with high satisfaction might encourage patients to produce good results (10). This will help patient integrated satisfaction improvement and reduction of medical cost, thus making the hospital stand in the beneficial position in the competitiveness, medical market share and profit rate (11). In addition, the modern enterprise should expand the incentive mechanism of regarding "profit as the centre" to the double management objectives of "centre for person and high satisfaction". In the same way, one should regard improving the medical worker's satisfaction as one of the management objectives in the field of health, and pay close attention to research work in this respect. This is the requirement of reform of management, and the requirement of the trend of management on centre for person, it is also a requirement of the competition.

Relevant documents were reviewed indicated the results that there were few investigations of medical worker's job satisfaction in the fields of Chinese health services and even few systematic studies directed against the job satisfaction of

medical doctor currently. China is carrying out the comprehensive health system reform at present. However, a high job satisfaction among medical doctor team was an important effect for improving quality of services, raising patient satisfaction, improving competitiveness, guaranteeing sustainable development of the health industry.

For this reason, it is needed to strengthen the investigation to medical doctor's job satisfaction like this, to develop and search for the job satisfaction scale that suitable for medical doctor characteristic and make it standardized, and can blend perfectly in daily routine management. This job satisfaction scale should become the important diagnosis means for an administrator carries out manpower resources management enable to grasp the situation of medical doctor's job satisfaction timely and accurately, to find the existing problem in management, to take the measure of improving with a definite target in view, to raise the job satisfaction of medical doctor, to reduce the intention of leaving office, in order to improve the working efficiency and quality of service.

5.3 Job satisfaction and the factors influencing the job satisfaction

The findings of job satisfaction from these medical doctors were investigated show that 70.8% respondents were relatively satisfied and very satisfied about their work. The level of medical doctors' job satisfaction from this research was better, but there is also very large space to improvement. The evaluation for their quality of services, task significance and relationship harmonious with colleague were higher from analysis on each dimension of medical doctors' job satisfaction. There were certain sense of achievement of work, ownership and identify with hospital, certain challenges to their work also. These all will help for promoting the job satisfaction of medical doctors.

The aspects of unsatisfied were concentrated mainly on remuneration distribution, welfare from the hospital, employing mechanism, income, safety

management of the hospital, patient-doctor relationship, environment for medical practice, promotion of professional post, system development, skill improvement and so on. Out of above mentioned show those respondents were unsatisfied as following several tiers.

First, the tier of equity: (i.e. remuneration distribution, promotion of professional post), relevant studies showed that the equity all affect the emotions commitment of their organization, job satisfaction and intention of leaving office. The findings from this research showed there were stronger correlation between the remuneration distribution and promotion of professional post with the medical doctors' job satisfaction and intention of leaving hospital. The medical doctors who thought that there were inequity about the remuneration distribution and promotion of professional post had lower job satisfaction and higher intention of leaving the hospital. This should be arisen paying much more attention and should be improved by hospital.

Second, it is the tier of return from work: including income, welfare from hospital, etc. In fact, this is an extremely popular phenomenon which medical doctors think the return from work is lower and unreasonable. The main cause is related to national health policies, because the financial subsidy from government is not enough and immature system of payment from pocket, the payment to many items of medical services in accordance with less than cost, so that earnings of hospital have to depending on selling medicine. Thereby, many medical doctors think that is not pro-rata for devoting to the work and return from it, i.e. the value of medical worker technical services was not embodied for a long time.

Third, the tier is external environment: including environment for medical practice and the patient-doctor relationship. Because the relationship between medical doctor and patient is a focus problem that was paid close attention. Medical dispute was occurred constantly that results in the people and media to call for the medical doctor as the "eldest coolness". However, the medical doctors were afraid of self-safety and discontent with the environment for medical practice. The new regulation

issued recently with the medical accident to lead to more focusing on benefits for medical doctor and patient. In this research, the mean score of these two items lay in the lowest ten items which related to mean score in all research items of satisfaction. Thus it can be seen the respondents were discontent with the universal environment for medical practice and the relationship between medical doctor and patient, going a step further to influence the work psychology and stability of medical doctor. An investigation that Chinese physician association announce on first Chinese physician forum recently, there were 60.3% medical doctors were discontent with their environment for medical practice (4).

At the same time, dissatisfaction both sides of doctors and patients become one focus problem that is hardly solved at present. We are advocating regarding "patient as the centre", making great efforts to improve satisfaction of patient, while improving the quality of services should also pay close attention to services provider oneself satisfaction and morale? Britain medical magazine published a critical article entitled as " why are doctors so unhappy " in May 2001 (3), caused in the strong response of the medical doctors from each areas of the world, and an international investigation was carried out afterwards. The result indicated that a doctor unhappy had already become a comprehensive general phenomenon, trace it to its cause, it is mainly that various countries are carrying out the health system reform, and the medical doctor autonomy is diminished constantly, while the medical doctors should held the responsibility is increasing constantly. The medical doctor's position of standing high above the masses has been challenged by the conception of centre for patient, however, their received education lags behind relatively that make the psychology of medical doctor produce the serious out of balance. In this case, people to address such worry: as a team that are such so unhappy medical doctors, can it be flourishing?

There were same problems in our country while carry out health system reform in most public hospital at present. For this reason, we should enhance communication and understand each other for government with the medical workers,

also enhance training for communication technique etc. among medical workers to inculcate the conception of centre for patient, to establish the new medical ethics outlook which blend pursuit for quality of life and value of life, to shift traditional conception among medical doctors. Thereby, make the medical workers transform passive adaptation into initiative adaptation. The transformation for psychology out of balance that produces in process of health system reform among medical workers is very important. At the same time, these are important measures to stabilize a team of medical doctors as well as important guarantee to improve the quality of services while making great effort to improve the patient-doctor relationship, and attempt to create a fine environment for medical practice.

Fourth, the tier of internal management: including employing mechanism, safety management, system development and so on. The satisfaction of these aspects among medical doctors that were investigated was lower, this indicates that the hospital has many problems, such as management is not enough, and also has some weak link. The administrator should recognize the problems in these aspects to adopt centre for person and mode of supple management, to enhance the management with these aspects and to improve the satisfaction in these aspects.

5.4 The finding of ANOVA analysis

Using ANOVA method to analyze the sum of satisfied items, it showed that age, professional post and department of working in were mainly socio-demographic factors and job characteristic factors influencing the sum of satisfaction. The mean score for the sum of satisfied items from young group and old group were higher that makes the age group come out rise to both sides. But mean score of 31-40 years age group responded the sun of satisfied item was the lowest. The medical doctors in this age group to mean score for all other evaluation items of satisfaction were lower, in which the mean score were the lowest among all items that were job satisfaction, income, environment for medical practice, the patient-doctor relationship, relationship harmonious with colleague, working condition, position in society, remuneration

distribution, employing mechanism, work break, ownership and identify with hospital, system development, respect and care by leader, welfare, promotion of professional post, safety management, skill improvement, chance of promotion, impression for leader, ability implementation and approval of achievement in the aggregate twenty one items. The explanation for these results because of the large stress from work, heavy burden from family and high expectation toward their work among medical doctors in this group. Doctors in the age group 31-40 years had more work experience, consequently they were expected by leaders to have more responsibilities. But their individual's demands (such as higher salary, the chance of promotion, training, needs for working environment, incentive, etc.) cannot content. They worked more but returned less that causes psychological depress. The more deep causes require adopting qualitative investigation methods to confer further that like a group seminar, in-depth interview for individual.

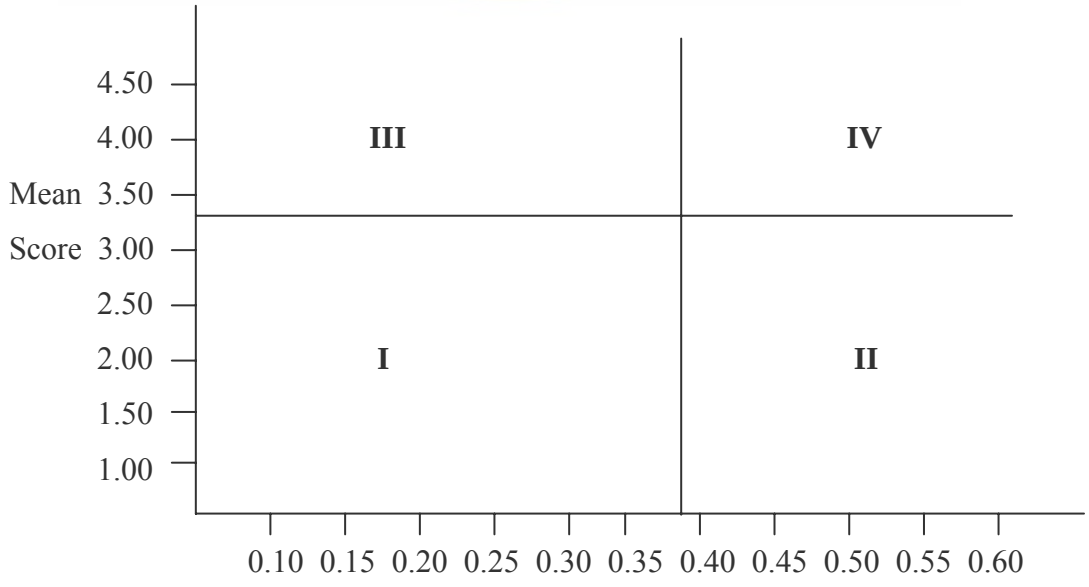
In terms of professional post, the respondents with low professional post had lower mean score for the sum of satisfied item. In different departments, the pediatricians had the lowest mean score to the sum of satisfied item, the physicians and surgeons had lower mean score, while the medical doctors in department of traditional Chinese medicine had the highest mean score to the sum of satisfied item. In this hospital, pediatricians had heavier load of work than the traditional Chinese medicines, but their salary was almost the same. That may be the reason why pediatricians had lower satisfaction of work. The notable exception, these phenomena whether are a universal situation and other hospital whether like this, what are the causes, all require to survey further and to prove these questions.

5.5 Correlative analysis on relationship between job satisfaction and influential factors

These items had stronger correlation with job satisfaction by correlation analysis as following: working condition, respect and care by leader, system development, ability implementation, position in society, skill improvement, welfare,

environment for medical practice, impression for leader and so on. These indicate that it is helpful to enhance medical doctors' job satisfaction while improve the satisfaction upon these aspects. How to identify which items should resolve priorities in accordance with the research finding for job satisfaction of medical doctors is important.. Especially, while the resource and condition have many limitations, that reveal the importance to identify the focal point of work. We can in accordance with the importance of factors to infer the model that just is a quadrant graph for work importance of each item job satisfaction, to identify the solvable priority among each item of medical doctors' satisfaction through integrated analysis on the importance of each item and mean score actually.

Using correlation coefficient each satisfied item and for job satisfaction as an abscissa that was deemed the importance for the item corresponding job satisfaction, the mean score to each satisfied item as an ordinate, the general mean score for all satisfied items was 3.40 as a transverse separate line (excluded working load and participate in training), the average correlation coefficient for each satisfied item and job satisfaction was 0.38 as vertical separate line, concluding above we might get a quadrant graph for work importance of each item of job satisfaction.



Importance (Correlation Coefficient)

Figure 4 Quadrant graph for work importance of each item of job satisfaction.

I Quadrant: There are lower importance and lower mean score in this area, which indicates the items in this area represented are not good and, but can be put on one side temporarily. The items belong to this kind as followings: income, work break, chance of promotion and the patient-doctor relationship for four-item.

II Quadrant: There are higher importance and lower mean score in this area, which indicate the items in this area represented are not good and should resolve priority. The items belong to this kind as followings: working condition, remuneration distribution, employing mechanism, ability implementation, approval of achievement, system development, welfare, promotion of professional post, safety management, skill improvement, impression for leader, position in society, environment for medical practice for thirteen-item. Out of these items to see, majority of them are related to internal management in the hospital that except environment for medical practice and position in society, and that can be improved and enhanced by adopting effective measure.

III Quadrant: There are lower importance and higher mean score in this area, which indicates the items in this area represented are fine and, but the importance are finite. The items belong to this kind as followings: task significance, collective cohesion, quality of services, challenge from their work and achievement for five-item.

IV Quadrant: There are higher importance and higher mean score in this area, which indicates the items in this area represented are fine and need to keep these important factors. The items belong to this kind as followings: relationship harmonious with colleague, ownership and identify with hospital, respect and care by leader for three-item.

5.6 The finding of stepwise multiple linear regression analysis

In the stepwise multiple linear regression analysis, there were five factors enter the regression model that were working condition, approval of achievement, ownership and identify with the hospital, relationship harmonious with colleague and welfare respectively. That showed these five factors were main factors influencing the job satisfaction.

The tolerance of each item that all items enter the regression model were more than 0.1 and the VIF of each item that all items inter the regression model were less the ten, for this reason, the regression model have been set up which there is no collinearity problem (29). In which there ere three larger values of standardized coefficients Beta that were working condition, relationship harmonious with colleague and approval of achievement, that show these three factors have strongest impact to job satisfaction. Five factors in regression model could explain the variance for medical doctors' job satisfaction about 44.4%.

5.7 The correlation to job satisfaction and stability

From this investigation, it is found that the work psychology among medical doctors had instability, the intention of leaving hospital among medical doctors was higher (53.7%). Consequently, should adopt effective measure to enhance the stability among medical doctors. Going a step further analysis to show there was a negative correlation between medical doctors' job satisfaction and their intention of leaving the hospital. This finding means the intention of leaving the hospital among medical doctors was lower while their job satisfaction was higher. That indicating to improve the medical doctor's job satisfaction can diminish the intention of leaving the hospital among medical doctor.

High loss rate of medical doctor will decrease the motion efficiency and services quality of hospital, especially, the loss of hard-core medical doctors will cause the more damage of hospital clearly. High loss rate of employee not only their

organization cannot accomplish the target, but also might bring damage of cost straightly. It has been study show the loss of employees bring straightly economic damage that at least was 25% annual wages of them. If include the hidden cost the damage will be more. Certainly, the loss of employee who has low ability might reduce contrariwise the cost of the organization and to accomplish the aim more easy. In general, high loss rate of employee for net effect of organization that comes from motion efficiency and production efficiency should be integrated negative, in which the net effect equal to the positive affect for the loss of employee subtract the negative affect for the loss of employee.

This study showed the medical doctors had an intention for high profession that had high education, in which the intention of leaving frequently the hospital in respondents that had the below M.D. bachelor accounts for 0%, the respondents that were M.D. bachelor had this intention accounts for 4.6%, the respondents that were master and above had this intention accounts for 10.6%. This finding indicates the medical doctors that had high education have low stability and the intention of leaving the hospital of them is high. The administrators should adopt appropriate management measures to improve job satisfaction in the medical doctors who were high quality and to decrease their intention of leaving the hospital. Thus not only enable fulfilling their function fully, but also make progress for work efficiency and quality of services, and improve the hospital development.

CHAPTER 6
CONCLUSION AND RECOMMENDATION

6.1 Proceeding from the tier of internal management in the hospital

Proceeding from the tier of internal management in the hospital, adopting effective measure to enhance the job satisfaction and stability among medical doctors

According to Herzberg theory of motivation and hygiene, hygiene issues, cannot motivate employees but can minimize dissatisfaction, if handled properly. In other words, they can only dissatisfy if they are absent or mishandled. Hygiene topics include company policies, supervision, salary, interpersonal relations and working conditions. They are issues related to the employee's environment. Motivators, on the other hand, create satisfaction by fulfilling individuals' needs for meaning and personal growth. They are issues such as achievement, recognition, the work itself, responsibility and advancement. Once the hygiene areas are addressed, said Herzberg, the motivators will promote job satisfaction and encourage production (9).

Proceeding from this theory, while the medical doctors unsatisfied concentrate mainly the dimension of hygiene factors, such as income, working condition, environment for medical practice and so on. This reflecting the pursuit of medical doctors is not on an even high tier, i.e. the demand in low level of job satisfaction (30).

For this reason, it should improve the working condition, create a fine environment for medical practice and increase the income and welfare appropriately etc. to eliminate or decrease the unsatisfied state among medical doctors, to make medical doctors being no unsatisfied. It should put in time and make efforts for equity and perfect management system while it is impossible to increase the income for

medical doctors that also can decrease the unsatisfied degree of medical doctors. At the same time to adopt appropriate motivation mechanism, such as increasing the sense of achievement, fulfilling the worker ability fully and timely recognizing and commending for their achievement, these all can improve the worker's job satisfaction and making it arrive a even high tier.

When consider improving the satisfaction of each item by the administrator in the hospital, should begin from the quadrant of work importance deferring model to identify the items for solving priority. Then adopt effective measure with amelioration, in order to might with less input to obtain the best effect.

In terms of stability among medical doctors, especially notable, the medical doctors with high education have high intention of leaving the hospital than others in this research. We should look for active and effective readily measure to solve the problem, because of the medical doctors with high education were important human manpower for sustainable development to the hospital. Relevant studies have showed, administrator of hospital should put in time and make efforts on these aspects to stabilize the team of medical doctor, because of enhancing to return level from work and fulfilling individual personal value were effective approach to promote the stability of worker.

6.2 From the tier on external management show

From the tier on external management showed, they should enhance the communication between charge of health department and medical doctors that will be helpful of policy maker to make new better policies, to improve medical doctors' job satisfaction and stability.

In the process while carried out health system reform in most public hospitals in our country at present, the medical doctors' autonomy is diminished constantly, the medical doctor should held responsibility is increasing constantly, the medical doctor's position of standing high above the masses has been challenged by

the conception of centre for patient, and that received education lags behind relatively, makes the psychology of medical doctor produce serious out of balance.

Therefore, to enhance communication and understand each other for government with the medical workers, also enhance training for communication technique among medical workers, to strengthen the conception of centre for patient, to establish the new medical ethics outlook that were adaptable modern society, to shift traditional conception among medical doctors, make the medical workers transform passive adaptation into initiative adaptation. At the same time, these were important measures to stabilize a team of medical doctors as well as important guarantee to improve the quality of services while making great effort to improve the relationship between medical doctor and patient, and attempt to create a fine environment for medical practice.

6.3 Ought to enhance the investigation to worker's job satisfaction

Ought to enhance the investigation to worker's job satisfaction which all had important meaning for thorough to know the characteristic of job satisfaction and to promote the level of human manpower management of administrator.

The job satisfaction scale that suitable for medical doctor characteristic should be developed and exploited, and standardized. These measures can be blended perfectly in routine management, become the important diagnosis means for a administrator carries out manpower resources management, enable to grasp the situation of medical doctor's job satisfaction timely and accurately, find the existing problem in management, take the measure of improving with a definite target in view, raise the job satisfaction of medical doctor and reduce the intention of leaving office, in order to improve the working efficiency and quality of service.

6.4 For further study

The results of this study should be carried out the initial attempt for the study in this aspect through this investigation and analysis on medical doctors' job satisfaction and stability. Thereby, to know essentially the situation and influential factors for the job satisfaction and stability among medical doctors, also address some corresponding countermeasures and measures.

But if hope to make the countermeasures and measures even more pertinence, we should aim at the discoverable problems and based on the analysis for questionnaire research to find the more deep causes that require adopting qualitative investigation methods to explore further, such as focus group discussion, in-depth interviews, besides, to establish feasibly improved measure in order to continue the study even perfectly.

In other hand, the study about the program or method to increase the job satisfaction and stability among medical doctors is necessary.

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APPENDIX

APPENDIX A
QUESTIONNAIRES

JOB SATISFACTION AMONG MEDICAL DOCTORS IN WEIFANG PEOPLE'S HOSPITAL IN CHINA

Date of registration …… Registration No. ……

Dear doctor:

In order to make you have a good working environment, to improve your satisfaction to work and the service quality for the centre, to improve attitude and serve patients better. We hereby carry on questionnaire investigation on the situations, such as your satisfaction to your current job, etc. Your answer is very important; we will keep confidential of your answer. Sincerely thank you for your cooperation!

_ _ _ _ _ _City_ _ _ _ _ _ District _ _ _ _ _ _ Hospital.

Part I Socio-demographic factors

1. Gender

☐Male ☐Female

2. Age

☐☐Years old

3. Marital status

☐Single ☐Married ☐Divorced ☐Widowed

4. Education

☐Secondary specialized school ☐Junior college

☐Undergraduate course ☐M.D. Bachelor ☐Master and above

Part II Job characteristic factors

1. Professional post

☐Assistant doctor grade ☐Resident grade ☐Attending doctor or in charge of grade ☐Deputy director grade ☐Director grade

2. Department of working in

☐Department of internal medicine ☐Surgery

☐Obstetrics and Gynaecology ☐Pediatrics

☐Department of prevention and health care

☐Department of rehabilitation ☐Family bed department

☐Department of birth control ☐Health education department

☐Department of medical technology ☐Department of traditional Chinese medicine ☐Other (please explain) _ _ _ _.

Part III Attitude and opinion

1. Environment for practice

1-1. How do you think your present environment for medical practice?

☐Very bad ☐Relatively bad ☐So so

☐Better ☐Very good

1-2. How do you think the present relationship between doctors and patients?

☐Very tense ☐Relatively tense ☐So so

☐Better ☐It is very good

2. Income

2-1. Do you feel satisfied about the present income?

☐Very unsatisfied ☐Relatively unsatisfied ☐So so

☐Relatively satisfied ☐Very satisfied

2-2. Do you feel satisfied about the welfare of the hospital?

☐Very unsatisfied ☐Relatively unsatisfied ☐So so

☐Relatively satisfied ☐Very satisfied

3. Equity

3-1. Do you think that it is reasonable of the remuneration distribution of the hospital?

☐Very unreasonable ☐Relatively unreasonable ☐So so

☐It is relatively reasonable ☐It is very reasonable

3-2. Do you think that it is equitable in promotion of professional post in your hospital?

☐Very inequitable ☐Relatively inequitable ☐So so

☐Relatively inequitable ☐Very inequitable

4. System development

4-1. Do you feel satisfied about the employing mechanism of the hospital?

☐Very unsatisfied ☐Relatively unsatisfied ☐So so

☐Relatively satisfied ☐Very satisfied

4-2. Do you think the hospital stipulation of work break is reasonable or not?

☐Very unreasonable ☐Relatively unreasonable ☐So so

☐Relatively rational ☐Rational

4-3. Do you feel satisfied about the system development of the hospital?

☐Very unsatisfied ☐Relatively unsatisfied ☐So so

☐Relatively satisfied ☐Very satisfied

4-4. Do you feel satisfied about the safety management in the work?

☐Very unsatisfied ☐Relatively unsatisfied ☐So so

☐Relatively satisfied ☐Very satisfied

5. Leader's behavior

5-1. Have you felt the respect and care by leader?

☐Absolutely no ☐Have no ☐Not sure

☐Sometimes have ☐Absolutely have

5-2. Can your achievements get the leader's approval?

☐Do not approve at all ☐Do not approve very much

☐Approve basically ☐Relatively approve

☐Approve totally

5-3. How is your overall impression on the work of the hospital leader?

☐Very unsatisfied ☐Relatively unsatisfied ☐So so

☐Relatively satisfied ☐Very satisfied

6. Working condition

6-1. Do you feel satisfied about the present conditions of the work?

☐Very unsatisfied ☐Relatively unsatisfied ☐So so

☐Relatively satisfied ☐Very satisfied

7. Achievement

7-1. Do you feel satisfied about your social position?

☐Very unsatisfied ☐Relatively unsatisfied ☐So so

☐Relatively satisfied ☐Very satisfied

7-2. Do you have a sense of achievement about your work?

☐Absolutely no ☐Have no ☐Not sure

☐Sometimes have ☐Absolutely have

7-3. Do you feel satisfied about your skills improvement?

☐Very unsatisfied ☐Relatively unsatisfied ☐So so

☐Relatively satisfied ☐Very satisfied

7-4. Do you think your ability can be implemented fully in this hospital?

☐Can't at all ☐Can't a bit ☐So so

☐Can do better ☐ Can do fully

7-5. Do you feel satisfied about your quality of services?

☐Very unsatisfied ☐Relatively unsatisfied ☐So so

☐Relatively satisfied ☐Very satisfied

8. Interpersonal relation and cooperation of department

8-1. Is the relationship between you and colleague at work harmonious?

☐Very unharmonious ☐Relatively unharmonious ☐So so

☐Relatively harmonious ☐Very harmonious

8-2. How do you think about the collective cohesion among members in your department?

☐Very bad ☐Relatively bad ☐So so

☐Relatively strong ☐Very strong

8-3. Do you have the sense of ownership and identify oneself with the hospital?

☐Absolutely no ☐Have no ☐Not sure

☐Basically have ☐absolutely have

9. Advancement opportunities

9-1. Do you often participate in training?

☐Never ☐Participate occasionally ☐Often participate

9-2. How do you think the challenge of your work?

☐No challenge ☐Relatively no challenge ☐So so

☐stronger challenge ☐very strong challenge

9-3. How much chance of promotion do you have?

☐Have no at all ☐Have no ☐Not sure

☐Have some ☐very much

10. Task significance

10-1. How do you think the significance of your job?

☐Unimportant at all ☐Unimportant ☐So so

☐Important ☐Very important

11. Working load

11-1. How do you think about your daily working load?

☐Few ☐Less ☐So so

☐Heavier ☐Very heavy

Part IV Job satisfaction (dependent variable)

Overall, do you feel satisfied with your current job?

☐Very unsatisfied ☐Relatively unsatisfied ☐So so

☐Relatively satisfied ☐Very satisfied

Thank you very much sincerely for your cooperation!

Investigator: _____

Investigate date: _ _ month _ _ day _ _ year

APPENDIX B

PRETEST RESULTS

RELIABILITY ANALYSIS - SCALE (ALPHA)

Reliability Coefficients

N of cases = 32; N of items = 28; Alpha = 0.9539

Evaluation items	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Alpha if Item Deleted
Job satisfaction	91.4688	340.7732	.7269	.9516
Working load	91.9688	358.9345	.2743	.9547
Income	92.5625	351.8024	.3588	.9546
Environment for Medical practice	92.4375	341.5444	.6348	.9523
Patient-doctor relationship	92.6875	358.5444	.1407	.9568
Relationship harmonious	91.2813	351.8861	.3552	.9546
Working condition	91.8125	342.2863	.5889	.9527
Participate in training	93.2188	351.0796	.6464	.9528
Task significance	91.2188	348.4990	.6019	.9528
Position in society	91.9688	346.9345	.4893	.9536
Remuneration distribution	93.0625	334.0605	.8134	.9507
Employing mechanism	92.5000	330.9677	.7658	.9510
Collective cohesion	91.7500	340.0645	.6167	.9525
Work break	92.3125	349.3185	.4028	.9544
Achievement	91.3125	333.0605	.7616	.9511
Identify & ownership	91.3438	337.6522	.7408	.9514
System development	92.1875	328.7379	.8709	.9499
Respect and care	91.9375	325.4798	.7969	.9506
Approval of achievement	91.7813	332.4990	.6499	.9524
Welfare	93.0938	337.8942	.6852	.9518
Promotion of professional post	92.3750	338.5000	.7008	.9517
Safety management	92.4688	329.6764	.8289	.9503
Skills improvement	92.0938	326.7329	.8439	.9501
Quality of services	91.0313	358.3538	.3036	.9546
Challenge	91.5313	334.2571	.7344	.9513
Chance of promotion	92.0625	339.8669	.6295	.9524
Impression of leader	92.1875	327.7056	.7928	.9507
Ability implementation	92.0000	326.3226	.9153	.9494

BIOGRAPHY

NAME	Hu Qiang
DATE OF BIRTH	April 16, 1964
PLACE OF BIRTH	Weifang city, Shandong Province, P.R.China
INSTITUTION ATTEND	Qingdao Medical University, China 1981-1986 Clinical College in Beijing University, China 1996-1997 M.P.H.M at AIHD in Mahidol University, Thailand 2004-2005
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PRESENT POSITION	Medical Doctor (Pediatric surgeon) Assoc. Prof. of Pediatric Surgery Chief of Department of Pediatric Surgery in Weifang People's Hospital, China